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EVALUATING NFL PLAYER HEALTH AND PERFORMANCE: LEGAL AND ETHICAL ISSUES

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This Article follows the path of a hypothetical college football player with aspirations to play in the National Football League, explaining from a legal and

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ethical perspective the health and performance evaluations he will likely face throughout his career. Some of these evaluations are commonplace and familiar, while others are more futuristic—and potentially of unproven value. How much information about themselves should aspiring and current professional players be expected to provide in the employment context? What are the current legal standards for employers collecting and acting on an individual’s health- and performance-related information? Drawing on disability law, privacy law, and the law governing genetic testing, this Article seeks to answer those questions, as well as to provide recommendations to better protect the health and privacy of professional football players.

The upshot of our analysis is that it appears that some of the existing evaluations of players, both at the NFL Scouting Combine (Combine) and once drafted and playing for a club, seem to violate existing federal employment discrimination laws. Specifically, (1) the medical examinations at the Combine potentially violate the Americans with Disabilities Act’s (ADA) prohibitions on pre-employment medical exams; (2) post-offer medical examinations that are made public potentially violate the ADA’s confidentiality provisions; (3) post-offer medical examinations that reveal a disability and result in discrimination—e.g., the rescission of a contract offer—potentially violate the ADA provided the player can still perform the essential job functions; (4) Combine medical examinations that include a request for a player’s family medical history potentially violate the Genetic Information Nondiscrimination Act (GINA); and (5) the preseason physical’s requirement that a player disclose his family medical history potentially violates GINA.
We believe all employers—including the NFL and its clubs—should comply fully with the current law. To that end, our recommendations center around four “C”s: compliance, clarity, circumvention, and changes to existing statutory schemes as applied to the NFL (and perhaps other professional sports).

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INTRODUCTION

Meet James. He is a twenty-two-year-old male who stands at 6’1” and weighs approximately 203 pounds.1 James has had a very successful college career as a wide receiver in the Pac-12 and now hopes to join the approximately 2,200 men who play professionally for the National Football League (NFL).
League (NFL) each regular season. But before he can realize his dream, James must face a series of health- and performance-based evaluations, designed to test whether he can withstand the rigors of playing professional football. Should James succeed as a professional athlete, any number of individuals will have a great interest in his health and fitness, from those who run the NFL clubs to the eighty-five million fans that will turn on their televisions every week to watch him play. But how much information about his health and his abilities should James be willing to share and, perhaps more importantly, with whom?

Before and during his NFL career, James will be asked to submit to any number of evaluations. Should James agree to an electrocardiogram (EKG) to assess the electrical activity of his heart and to put him (and his club) on notice if he is at risk of cardiac arrest as the result of overexertion? What about a running drill that, while not directly assessing the activity of James’s heart, will nonetheless demonstrate his cardiovascular capacity? What if an NFL club asked James to swallow a pill that would send wireless signals through his body to sensors that translate those signals into data about James’s heart rate, respiration, and skin temperature to share with an athletic trainer? How about a genetic test that assesses cardiac risk? Some of these examples may sound like science fiction but such technologies are currently being deployed by NFL clubs, and trends in this direction are only likely to increase. What about the decidedly low-tech method of just asking James about the history of cardiovascular disease in his family? Should James submit to all of these evaluations? Some of them? None of them? And if he refuses, what are his legal rights?

No one would presumably ever tolerate this degree of invasive inquiry into his or her health status and physical ability when applying for a standard office job. But those jobs do not require full-body collisions with other hulking athletes on a weekly basis. Nor do they promise the potential of multimillion dollar salaries. To be sure, prospective and current NFL players are physically exceptional human beings. Just compare James’s physique to the average American male between the ages of twenty and twenty-nine, who is 5’9” and weighs 183.9 pounds. Because of their extraordinary physiques and abilities, much of what we know about health within the “normal” population may not translate to NFL athletes. Further, the

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2 This figure is derived from official NFL–NFLPA playtime statistics on file with the authors.
average person does not subject himself to the kinds of physical challenges regularly encountered by NFL players.

NFL football is big business. The NFL began play in 1920 and since that time has been the premier professional football league in the world and one of the most lucrative of all the sports leagues. The NFL generates about $12 billion in revenue annually and is the most popular sport in America by a variety of measures. Thirty-five percent of Americans consider NFL football their favorite sport, a number that continues to increase. On average, approximately 68,000 people attend every NFL game. Moreover, NFL games are the most watched television programming. More than twenty million people watch the primetime broadcasts, nearly triple the ratings of the major television networks. In 2015, Forbes estimated the average NFL club to be worth $1.97 billion. The average salary of an NFL player is approximately $2 million per year but varies widely based on skill and experience. The National Football League Players Association (NFLPA) estimates that the average player’s career is about three and a half years long, while the NFL asserts that it is nearly six years. All of these features are dramatically different as compared to the employment context of the average office worker, or even to those in more physically demanding jobs.

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8 See, e.g., Regina Corso, As American As Mom, Apple Pie, and Football?, HARRIS POLL (Jan. 16, 2014), http://www.theharrispoll.com/sports/As_American_as_Mom__Apple_Pie_and_Football__h tml [http://perma.cc/4VAW-NQME] (explaining that 35% of Americans say that football is their favorite sport while just 14% prefer baseball, the second most popular sport).

9 Id.


Given the revenue and prestige of the sport, and the clear consumer interest, the NFL and its clubs have strong incentives to scout, draft, and retain the highest performing players. As a result, they want to obtain as much information as they can about a player’s current health, athletic abilities, and risks of future injury or disease to facilitate as informed a decision as possible. Moreover, with that kind of fame and money on the line, prospective and current NFL players face substantial pressure to do what they need to do to play professional football, which inevitably includes submitting to numerous health and performance evaluations, even if they would prefer to avoid them, all things being equal.

At present, the NFL and the clubs already collect a significant amount of information about aspiring and current players through medical exams (including physicals) and athletic drills and training. While this existing data is important, it represents only the tip of the iceberg regarding the information NFL clubs would like to have in making decisions related to hiring, firing, trading, and playing.

Not surprisingly then, companies are creating all kinds of new technologies designed to assess health and physical performance. The ingestible pill described above is not science fiction but is based on an actual FDA-approved innovation. Companies are also designing ever-shrinking wearable technologies to measure speed, agility, and strength, as well as genetic tests, which could be used to assess risk or enhance performance. These new evaluative technologies could give stakeholders access to even more data. Consequently, the technologies could also pose a potential concern for players who may fear that the results of those evaluations could cost them their careers. All of this raises a fundamental question: How does the current law apply to these approaches when deployed in employment contexts? This Article, the first to address these issues, seeks to provide an answer.

Focusing on the employment relationship between NFL players, the clubs, and the league, we explore the applicability of two key federal employment discrimination statutes: the Americans with Disabilities Act (ADA) and the Genetic Information Nondiscrimination Act (GINA). Both the ADA and GINA contain provisions limiting an employer’s access to and use of current or prospective employees’ health-related information.

15 See infra subsection I.B.2.
17 See infra subsection I.B.2.
18 See infra subsection I.B.3.
The ADA, which Congress passed in 1990 and amended in 2008, protects people with disabilities against discrimination across several spheres, including employment, government services, and public accommodations. While it may seem counterintuitive to apply a disability rights law to an elite athlete who is in peak physical condition like James, the ADA's employment provisions nonetheless cover professional sports, and a professional athlete may meet the legal definition of a person with a disability. Most notably, the law restricts employers' ability to seek health-related information about their prospective and current employees through either medical exams or disability-related inquiries. Moreover, the ADA also prohibits employers from discriminating on the basis of disability, unless that discrimination implicates the employee's ability to safely perform the job in question.

GINA provides additional protection, outlawing discrimination on the basis of genetic information in health insurance and in employment. Congress passed GINA in 2008 to assuage people's concerns about genetic privacy and genetic discrimination. Genetic information, as defined by the law, includes a person's genetic test results, the genetic test results of his family members, and his family medical history. Like the ADA, GINA imposes constraints on both an employer's ability to obtain, as well as to act on, the covered information. However, unlike the ADA, GINA does not include health- or safety-related exceptions for discrimination. Consequently, an employer cannot make decisions based on lawfully obtained genetic information, even if the outcome of that choice would be in the interest of job performance or safety.

Given the wide coverage of both the ADA and GINA, we conclude that the NFL and the clubs may already be violating these laws with their current practices. Additionally, as new technologies develop, those entities will be

21 Title I of the ADA applies to employers, employment agencies, labor organizations, and joint labor-management committees. 42 U.S.C. § 12111(2) (2012). The statute, in relevant part, defines an employer as “a person engaged in an industry affecting commerce who has 15 or more employees for each working day in each of 20 or more calendar weeks in the current or preceding calendar year, and any agent of such person.” Id. § 12111(5)(A). The statute provides no explicit exception for professional sports.
22 Id. § 12112(d)(1)–(2), (4); see also infra notes 172–75 and accompanying text.
23 See infra notes 290–300 and accompanying text.
27 See infra note 373 and accompanying text.
28 GINA does, however, include several exceptions for the acquisition of genetic information, including for wellness programs. See infra notes 372–83 and accompanying text.
further tempted to seek and act on even more information about current and prospective players. Some of the new innovations blur the line between evaluations of health and evaluations of performance, pushing the boundaries of which evaluations are medical or genetic—and are thus covered by the ADA or GINA—and which evaluations merely assess athletic ability or potential—and are not. Based on our analysis of the ADA and GINA, we argue that the existing legal safeguards, both as written and as applied, could benefit from additional clarification, as well as certain changes.

First, we assert that the NFL and its clubs should ensure that they are complying with the current law. We are concerned that a number of potential legal violations may be occurring with respect to (1) medical examinations at the NFL Scouting Combine (Combine) (an annual event each February in which approximately 300 of the best college football players are invited to undergo medical examinations, intelligence tests, interviews, and multiple football and other athletic drills and tests in the hopes of demonstrating their prowess and landing a spot in the NFL); (2) post-offer medical examinations that are made public; (3) post-offer medical examinations that reveal a disability and that result in an adverse employment action; (4) Combine medical examinations that include a request for a player’s family medical history; and (5) the preseason physical’s disclosure requirements. Second, we suggest areas where the ambiguous state of the present legal regulation demands additional clarity. Third, we identify areas of possible legal circumvention and argue against them. Finally, we outline potential changes to the law. To that end, we suggest potential reforms to better strike the balance between the players’ autonomy and privacy and the interests of the NFL and its clubs in avoiding liability, in having the most competitive players, and in protecting players from injury.

This Article is the first in-depth analysis of the law and ethics of health and performance evaluations in the NFL (or any professional sports league). It proceeds in three parts. Part I provides the necessary background for understanding the possible impact of various traditional and cutting edge evaluative technologies on NFL players. It begins by identifying the relevant parties and stakeholders and their relationships. Part I then proceeds to describe both existing and prospective technologies that are either already being used by—or of potential interest to—the NFL and its clubs. Building off this foundation, Part II explores the existing law governing the acquisition and use of health, medical, and performance evaluations by the NFL, its clubs, and National Football Scouting—focusing on the ADA and GINA—and applies those laws to the practices and technologies outlined in Part I. Finally, Part III turns to recommendations for the future. We conclude with

30 For more on these technologies, see Online Appendix B, supra note 16.
our four “C”s: compliance, clarification, circumvention, and changes. While our focus is on the NFL, our analysis and recommendations have clear implications for other professional sports leagues, and potentially also for other workplaces that will rely on evaluating technologies.

I. BACKGROUND ON THE NFL AND EVALUATIVE TECHNOLOGIES

Much like its exceptional players, the NFL is not a typical employer. Individuals like James who aspire to play professional football will find themselves interacting with several separate but related legal entities, including the NFLPA, the NFL, the clubs themselves (as well as their medical and training staffs), the entities that organize the Combine, and the private companies seeking to develop and market technologies to these stakeholders. Because of the complexity of these relationships, understanding them is essential to our analysis. To that end, Part I presents the factual and technological background necessary to assess the legal and ethical implications of the use of health- and performance-related evaluations by the NFL and its clubs. It begins by describing the relationships between the various relevant parties before turning to the practices and technologies currently available for measuring NFL players’ health and performance.

A. Interested Parties

The use or potential use of both traditional and cutting edge evaluative technologies in the NFL has major implications for a variety of stakeholders, including most importantly (1) the players and their union, the NFLPA; (2) the NFL and its clubs; (3) the club doctors and athletic trainers; and (4) the private companies responsible for developing the new evaluative technologies. Below we provide background information about these stakeholders to help understand the legal and ethical issues raised by both old and new health and fitness evaluations.

Each season, approximately 2200 players play in the NFL. As explained in their Collective Bargaining Agreement (CBA), players are the employees of their respective clubs. Their union is the NFLPA. Pursuant to the National Labor Relations Act (NLRA), the NFLPA is “the exclusive representative[ ] of all the employees in [the bargaining] unit for the purposes of collective bargaining in respect to rates of pay, wages, hours of

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31 This figure is derived from official NFL–NFLPA playtime statistics (on file with authors).
employment, or other conditions of employment.”

The bargaining unit consists of

1. All professional football players employed by a member club of the National Football League;
2. All professional football players who have been previously employed by a member club of the National Football League who are seeking employment with an NFL Club;
3. All rookie players once they are selected in the current year’s NFL College Draft; and
4. All undrafted rookie players once they commence negotiation with an NFL Club concerning employment as a player.

The NLRA requires NFL clubs, acting collectively as the NFL, to bargain collectively with the NFLPA concerning the “wages, hours, and other terms and conditions of employment” for NFL players.

From a legal perspective, the NFL is an unincorporated association of thirty-two member clubs. Each club is a separate and distinct legal entity, with its own legal obligations. However, the NFL also serves as a centralized body for the clubs, including facilitating shared policy and decisionmaking.

The CBA obligates NFL clubs to retain, or hire as consultants, doctors with a variety of specialties, including but not limited to orthopedics, cardiovascular disease, and neurology. Club doctors perform a variety of duties, including

(1) providing healthcare to the players; (2) helping players determine when they are ready to return to play; (3) helping clubs determine when players are ready to return to play; (4) examining players the club is considering employing, e.g., at the NFL Combine or as part of free agency; and, (5) helping to clubs determine whether a player’s contract should be terminated.

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34 Collective Bargaining Agreement, supra note 32, pmbl.
37 Cf. Brady v. Nat’l Football League, 640 F.3d 785, 787 (8th Cir. 2011) (per curiam) (providing an example of a case in which each of the thirty-two teams and the NFL were named codefendants).
38 See Const. and Bylaws of the National Football League art. II, § 2.1(A) (stating that the purpose of the NFL is “[t]o promote and foster the primary business of League members, each member being an owner of a professional football club located in the United States”).
39 Collective Bargaining Agreement, supra note 32, art. 39, § 1(a)–(b). Of the thirty-two NFL clubs, only two directly employ any of their club doctors while the other thirty clubs enter into independent contractor arrangements with the doctors. Telephone Interview with Larry Ferazani, Vice President, Labor Litig. & Policy, Nat’l Football League (Oct. 6, 2014).
because of the player’s physical condition, e.g., whether an injury will prevent the player from playing.40

Each NFL club also employs approximately four athletic trainers, including a head athletic trainer and three assistants.41 Club doctors principally rely on the athletic trainers to monitor and handle the players’ health during the week.42

National Football Scouting is also relevant when applying the ADA and GINA to the NFL. National Football Scouting is an organization that provides scouting services to NFL clubs and that is owned and managed as a joint endeavor by twenty of the NFL’s thirty-two clubs.43 National Football Scouting also owns and controls National Invitational Camp, the legal entity that is the Combine.44 National Football Scouting, through National Invitational Camp, runs the Combine.45 As will be demonstrated below, we are not concerned with the application of the ADA and GINA to National Football Scouting directly, but instead with the application of the ADA and GINA to the NFL and NFL clubs as a result of their relationship with National Football Scouting.46

NFL club executives, coaches, scouts, doctors and athletic trainers attend the Combine to evaluate the players for the upcoming NFL Draft.47 According to Jeff Foster, the President of National Football Scouting, all thirty-two NFL clubs consider the medical exams (and not the athletic drills) to be the most important part of the Combine.48 Since 1987, doctors with IU Health, a healthcare system affiliated with Indiana University School of Medicine, perform x-rays, MRIs and other exams at each year’s Combine.49 The IU Health doctors

40 DEUBERT, COHEN & LYNCH, supra note 1, at 95; see also Collective Bargaining Agreement, supra note 32, app. A, para. 8 (“If Player fails to establish or maintain his excellent physical condition to the satisfaction of the Club physician . . . then Club may terminate this contract.”).

41 Athletic trainers—unlike most club doctors—are full-time employees of the club and are with the club and the players at almost all times. DEUBERT, COHEN & LYNCH, supra note 1, at 160.


45 Id.

46 See infra subsection III.B.2.


49 See id. ("350 MRIs were conducted on 330 players in a four-day period, with IU Health—a Combine partner for 28 years . . . ."); Jeff Foster Talks About Challenges of Hosting NFL Scouting
perform examinations on behalf of the Combine, which then provides the results to NFL clubs. After the IU Health examinations, club doctors also evaluate the participants. The medical examinations at the Combine generally include x-rays, MRIs, echocardiograms, EKGs, and blood analysis. Participants must also take a drug test. Dr. Richard Kovacs, a cardiologist with IU Health, describes the medical exams as “the choke point [because] . . . [n]o one goes to [the Combine] until they go through us.” These details about the structure of the Combine and the specific individuals who do the examining will prove important for the legal analysis in Part II.

The NFL exercises considerable control over the Combine, including helping to make decisions about the drills players perform, selling public tickets, and broadcasting the event on television. Thus, as we argue below, National Football Scouting may be understood for ADA and GINA purposes as an arm of at least some clubs and of the NFL itself. At a minimum, it provides the NFL and the clubs with the very types of information that the ADA and GINA seek to regulate.

Lastly, many private technology companies both in the U.S. and abroad are creating biological and other health-related products principally geared toward a sports application, making those companies important stakeholders in the conversation about evaluating NFL player health and performance. Biometric companies are working on technologies, with some focusing specifically on genetic tests. For example, several companies are putting cutting-edge technology into wearable devices that generate a variety of biological data. As these technologies get smaller and smaller, robust data

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Combine, supra note 44 (describing how IU doctors "handle all of the testing, imaging and reporting of the standard and special battery of tests that we do on each athlete"); see also About IU Health, IND. U. HEALTH, http://iuhealth.org/about-iu-health/ [http://perma.cc/92B5-SQJJ].

50 Bradley, supra note 43.

51 DEUBERT, COHEN & LYNCH, supra note 1, at 113.


55 DEUBERT, COHEN & LYNCH, supra note 1, at 112.

56 See infra text accompanying notes 154–56.

57 See infra subsections 1.B.2–3.
generation and collection will increase over time. These companies are responding to market demands, incorporating technologies that can help athletes (professional and amateur) improve their performance and also those that can help athletes be healthier and safer. Given that these demands are principal concerns of the NFL and many other powerful sports leagues, there are powerful economic incentives for the continued creation and expansion of new evaluative technologies.

B. Current and Prospective Technologies

Having identified the relevant stakeholders, here we turn to the kinds of evaluative technologies that are either currently being used or could potentially be used to assess the health and performance of current and aspiring NFL players. Although related, health and performance are not completely synonymous. For example, while detecting a cardiac abnormality speaks to a potential player’s health, he might still be capable of performing at a high level in the present, just with a greater degree of future risk. Thus, when appropriate, we attempt to differentiate measures of health from measures of performance, but we do so cautiously and with the knowledge that these categories frequently overlap. For this reason, we employ the broader rubric of “evaluative” technology, which we intend to include assessments of medical conditions, performance, potential, and risk.

NFL players are subject to a wide variety of assessments of their health, physical condition, and abilities. These evaluations range from athletic drills and traditional medical examinations to cutting-edge wearable technologies and genetic tests. The following sections discuss each of these different types of tests and technologies and their application to professional athletes as groundwork for analyzing the legal implications.58

1. Medical Examinations and Athletic Drills

The first category of evaluations is medical examinations and athletic drills. Athletic drills, as used here, refer to skills and performance-based evaluations that are not principally diagnostic. In other words, while medical examinations assess health and wellness, athletic drills are primarily intended to assess skill and performance. This distinction can of course be muddy. For example, both types of assessments could meet a particular legal definition of a medical exam, which we explain in Part II.59

58 Online Appendix B catalogues such technologies in much more exhaustive detail.
59 See infra subsection II.A.1.a.
a. Medical Examinations

As discussed above, players undergo a wide battery of medical examinations during the Combine. Some have labeled the Combine’s medical examinations dehumanizing. One former NFL player, Aaron Collins, described the Combine as follows:

During the physical exams, they pull on every bone in your body, and evaluate everything and X-ray everything. You are like a slab of beef . . . . It’s a meat market. There is not much dignity in it. They are evaluating potential. They check your legs, and pull on you. They check your knees and your ankles, pulling every joint. If you ever had surgery, they X-ray that part of your body a thousand times. They X-ray everybody’s chest, their heart, their this, their that. You take a stress test. You walk on a treadmill. You do everything. At the Combine, every player gets totally evaluated by every team doctor. They stand around you, they slap you on the table, and they evaluate you. This may be one of the first times that you realize that you are no longer Aaron Collins, person—you are Aaron Collins, commodity. It’s a job.

NFL hopefuls who attend the Combine all sign broad authorizations for the release, disclosure, and use of their otherwise private medical and mental health information. In addition, these documents give permission to release and to disclose the entirety of a player’s physical and mental health records (with the exception of psychotherapy notes) and direct a wide range of entities—including both physicians and mental health care professionals, as well as athletic trainers and amateur and professional sports organizations—to provide and to discuss that information with National Football Scouting, the NFL, the clubs and their affiliates, and certain third parties under contract with the NFL. The authorizations are in effect for two years following signing, and a player maintains a limited right to revoke the authorization for information that has not yet been released.

60 See supra note 52 and accompanying text.


62 Participants in the Combine are asked to sign two documents: (1) an authorization for the use and disclosure of records and information and (2) an authorization for release and disclosure of medical and mental health records. These are reproduced in Online Appendix C. Jessica L. Roberts, I. Glenn Cohen, Christopher R. Deubert & Holly Fernandez Lynch, Evaluating NFL Player Health and Performance: Legal and Ethical Issues: Online app. C (2017), https://www.pennlawreview.com /print/165-U-Pa-L-Rev-Appendix-C [hereinafter Online Appendix C]. While execution of these waivers is ostensibly voluntary, it is not believed that any players refuse to sign them. DEUBERT, COHEN & LYNCH, supra note 1, at 99 n.k.

63 Online Appendix C, supra note 62.

64 Id. at 4, 7-8.
The medical exams continue after the player has been drafted and joined a club. Every player undergoes a standard minimum preseason physical—conducted by the club doctors—that covers a general medical examination, an orthopedic examination, flexibility testing, an EKG, an echocardiogram, blood testing, baseline neuropsychological testing, urinalysis, vision testing, hearing testing, a dental examination, a chest X-ray, and an X-ray of all previously injured areas. During the season, players often undergo a variety of medical exams if they have been injured or potentially injured. Additionally, the CBA requires players to submit to physicals at their club’s request. And finally, players receive a physical at the conclusion of the season, also conducted by the club doctor.

The results of the medical examinations described above can have a real impact on a player’s career. Take, for example, the case of Star Lotulelei who, during the 2013 Combine, dropped from being one of the top projected draft picks to number fourteen after an irregular echocardiogram. While a subsequent MRI showed no evidence of a heart abnormality, the damage was already done. That result arguably cost Lotulelei millions of dollars, as he was drafted lower than expected. Similarly, in the 2016 NFL Draft, Notre Dame linebacker Jaylon Smith, UCLA linebacker Myles Jack, and Alabama linebacker Reggie Ragland all went from projected first-round draft picks to second-round draft picks because of suspected medical issues: Smith and Jack had knee injuries, while Ragland was diagnosed with an enlarged aorta during pre-draft medical exams.

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65 Collective Bargaining Agreement, supra note 32, art. 39, § 6; id. app. K.
66 Id. app. A, para. 8.
67 See, e.g., Michael Phillips, Sour End to Skins’ Bitter Season, RICHMOND TIMES-DISPATCH, Dec. 29, 2014, at C1 (explaining that each player on the Washington Football Club was required to report for end-of-season physicals following the final game of the season); Joe Reedy, Offseason Questions to Focus on Assistants — Coordinators Zimmer, Gruden Already Are Attracting Interest, DAYTON DAILY NEWS, Jan. 9, 2012, at C1 (same).
70 See 2013 NFL Draft First-Round Picks’ Signing Status, NFL (July 30, 2013, 9:15 AM), [https://perma.cc/GBG4-QW6B] (showing that first-year players’ salaries correspond with their draft order).
71 See Michael David Smith, Jaylon Smith Will Receive Insurance Payment, Myles Jack Won’t, NBC SPORTS: PROFOOTBALL TALK (Apr. 29, 2016, 10:23 PM), [https://perma.cc/Ps9E-ECHZ]
b. Drills

In addition to the medical examinations, the players participate in multiple athletic drills at the Combine, including the forty-yard dash, bench press, vertical jump, broad jump, three-cone drill, twenty-yard shuttle, and sixty-yard shuttle.72 While these drills demonstrate a player’s speed, agility, and athleticism, they can also serve a medical purpose by exposing physical limitations the player might have due to past or current injuries. Clubs certainly have an interest in testing players with injury histories at the Combine to see if they have fully healed from a particular injury or surgery and to judge whether the player will ever be able to be in the same condition he was prior to the injury.

Like the medical exams, this kind of testing does not end at the Combine. Players are often subjected to more of the same athletic drills leading up to the NFL Draft in private meetings and workouts with clubs.73 Athletic drills are also a central part of the player’s employment once he is with an NFL club. Training camps and practices consist of all kinds of athletic drills and football-related activities. While football is the primary focus of these drills, they can also have a medical component. The drills will constantly demonstrate the player’s current physical health and ability, including whether he has any injuries or has not fully recovered from previous injuries.

The evaluations might be even more intensive if the player is not yet a member of the club. Typically every Tuesday during the regular season (which is the players’ normal rest day following a Sunday game), clubs will hold tryouts for unemployed players that play positions where either the club


has recently suffered an injury or where the club is looking to upgrade.\textsuperscript{74} The tryouts typically consist of a variety of football drills, sometimes against other prospective players. While these assessments are focused on the player’s skill level, like the other athletic drills, they also reveal a player’s physical condition, including recovery from prior injuries. As part of the tryout, the club also generally subjects the player to a basic physical and, assuming that goes well, signs the player to a contract.\textsuperscript{75}

Although the Tuesday tryouts are generally for the players fighting to get back into the NFL, star players are also occasionally subjected to similar evaluations. Beginning in March of every year, unrestricted free agents\textsuperscript{76} are able to offer their services to any and all clubs but first must pass a physical. If the player does not pass the physical, any contract offer will be revoked and the player is once again a free agent, but now with the black mark of a failed physical as reported by the media.\textsuperscript{77}

In sum, both before they are hired to play NFL football and throughout their playing careers, players are constantly subjected to medical examinations and athletic drills. These are high stakes events, with careers and significant sums of money on the line each time. These examinations and drills—particularly those conducted at the pre-employment stage—are not primarily aimed at protecting player health, but instead are done with the business purpose of evaluating a player’s ability to perform successfully on the field and enable the club to win. In other words, while they may have some benefit to the


\textsuperscript{76} An unrestricted free agent is “any player with four or more Accrued Seasons . . . at the expiration of his Player Contract.” He is “completely free to negotiate and sign a Player Contract with any Club, and any Club shall be completely free to negotiate and sign a Player Contract with such player, without penalty or restriction.” Collective Bargaining Agreement, supra note 32, art. 9, § 1(a).

players, the primary interest of the NFL and its clubs in the medical evaluations and athletic drills is to obtain as much information as possible about a player’s current and future ability to help the club. For example, before offering a long-term contract to a player, a club would want to examine the player’s injury history to evaluate the likelihood of future injury.

2. Nongenetic Technologies

Medical examinations and athletic drills are traditional forms of health surveillance by NFL clubs. In the last several years many technology companies have been creating new products to measure player health.\(^{78}\) We focus our analysis here on products that NFL clubs are already using or are likely to use in the future, including at the Combine.\(^{79}\) While no categorization is perfect, the products these companies produce generally fall into eight categories: (1) player tracking, (2) heart rate, (3) sleep, (4) readiness, (5) body temperature, (6) force, (7) hydration, and (8) head impact sensors. Clubs may use these technologies for evaluating and improving performance, as well as for preventing or minimizing injury. For example, in 2015, the Philadelphia Eagles held their star running back out of practice because his hydration level was too low.\(^{80}\)

In what follows, we provide summaries of four examples of technologies we believe are the most relevant to the legal and ethical issues discussed in this Article, though many others are detailed in Online Appendix B: (1) Catapult Sports (Catapult) / Zebra Technologies (Zebra); (2) Fatigue Science; (3) BioForce HRV; and (4) X2 Biosystems.

First, tracking technologies are of interest to the NFL. Catapult is an Australian company that provides matchbook-sized GPS devices, known as the OptimEye system, that can be worn on a player’s uniform.\(^{81}\) The devices contain sensors capable of measuring and collecting data about the player’s performance, including agility, force, and acceleration.\(^{82}\) The data is transmitted by radio to

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78 Online Appendix B includes detailed information about thirteen companies that have developed such technologies for use in professional or elite-level sports and their effects on players.

79 See Tom Pelissero, NFL Ponders Changes to Tests Given at Annual Scouting Combine, USA TODAY (Feb. 22, 2016, 12:13 AM), http://www.usatoday.com/story/sports/nfl/2016/02/21/scouting-combine-changes/80700052/ [https://perma.cc/V6QC-BQYU] (describing the steps the NFL is taking to integrate new technology into the Combine).

80 See Josh Alper, Chip Kelly: DeMarco Murray Was Held Out of Practice Because of Hydration Issue, NBC SPORTS: PRO FOOTBALL TALK (Aug. 4, 2015, 1:15 PM), http://profootballtalk.nbcsports.com/2015/08/04/chip-kelly-demarco-murray-held-out-of-practice-because-of-hydration-issue/ [http://perma.cc/ZWZ3-B48R] (explaining the team’s decision and highlighting the coach’s comment that “[i]t’s not just for [Murray], we treat every player on a daily basis” (alteration in original) (internal quotation marks omitted)).


82 Id.
cloud-based software for analysis.\textsuperscript{83} Similarly, San Diego–based Zebra produces a wearable Real Time Locating System (RTLS) sensor for a player’s shoulder pads.\textsuperscript{84} Zebra’s technology collects data such as position, speed, and distance that are registered and compiled into a database.\textsuperscript{85} Unlike Catapult’s devices, the Zebra technology does not measure force, so it does not help players avoid injury.\textsuperscript{86}

As of November 2016, seventeen NFL clubs use Catapult’s devices.\textsuperscript{87} Clubs are principally focused on using the technology to prevent injuries.\textsuperscript{88} The device enables the club to identify which players have exerted high amounts of force and, as a result, have them participate less or at a lower intensity in future practices.\textsuperscript{89} It also enables the club to design practices that are more efficient and less strenuous for the players, as well as create practice regimens that suit the needs of each position.\textsuperscript{90} Some players will suffer because of the technology: it will identify which players are moving slower and less forcefully than others, which could cause a club to terminate those players’ contracts.\textsuperscript{91}

By contrast, Zebra is “The Official On-Field Player Tracking Provider” of the NFL.\textsuperscript{92} In July 2014, the NFL announced that it would install Zebra’s technology in seventeen stadiums during the 2014 NFL season.\textsuperscript{93} Specifically, the NFL installed the technology in the fifteen stadiums that hosted Thursday Night Football games that season.\textsuperscript{94} In a 2015 New York Times article, an official with the company that distributes Zebra’s data described the technology as “the future of sports” given the amount of data that is currently available.\textsuperscript{95} Coaches and trainers certainly seem interested in putting that newly available information to...

\begin{footnotes}
\item[83]\textsuperscript{83}Id.
\item[85]\textsuperscript{85}Id.
\item[86]\textsuperscript{86}See id. (noting that the technology “capture[s] precise location measurements”).
\item[87]\textsuperscript{87}See Our Clients, CATAPULT USA, http://catapultsports.com/united-states/clients [https://perma.cc/F6EJ-6BLM] (listing Catapult’s current NFL club clients); see also Catapult Sports, Buffalo Bills Player Monitoring Goes High Tech, YOUTUBE (July 24, 2013), https://www.youtube.com/watch?v=kjfr2qUv4Aq&feature=youtube (providing an example of an NFL club using Catapult technology during a practice).
\item[88]\textsuperscript{88}Id.
\item[89]\textsuperscript{89}Id.
\item[90]\textsuperscript{90}Id.
\item[91]\textsuperscript{91}See supra note 40 and accompanying text.
\item[93]\textsuperscript{93}NFL Commc’ns, supra note 84.
\item[94]\textsuperscript{94}Id.
\end{footnotes}
use. The Seahawks’ director of player health and performance, Sam Ramsden, explained that Zebra’s technology could help him assess whether his players are injured or tired based on their speed and other factors. Ramsden noted, “I look at it more as a segue to have a conversation with the player . . . The data is basically saying, ‘Looks like you weren’t cutting as hard today—is there something going on?’” Thus, technologies like those produced by Catapult and Zebra can empower players by giving them more information, which could in turn enhance performance or prevent injury. However, that same data could result in their being benched, traded, or terminated.

Second, Fatigue Science is a Canadian company that offers a wrist-worn device called a Readiband that is worn while sleeping to collect data about an athlete’s sleep, including quality, quantity, and timing. The Readiband captures actigraphy data by taking sixteen 3D measurements of the tiny movements in the wearer’s wrist per second and uses the acquired data to determine when a person is sleeping. The data is then analyzed using a web-based application. The Seattle Seahawks and the New York Giants currently use the Readiband, and news reports indicate that other NFL clubs may be using similar technology.

Fatigue Science’s technology could both benefit and harm players. The importance of sleep from a medical and scientific viewpoint is well-established.

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96 Id.
97 Id. (internal quotation marks omitted).
100 Team Platform, supra note 98 (discussing coaches’ access to data from the Readiband via coaching dashboards).
102 See Cheri D. Mah et al., The Effects of Sleep Extension on the Athletic Performance of Collegiate Basketball Players, 34 SLEEP 943, 943 (2011) (“Several studies have also demonstrated the negative impact of sleep restriction on physical performance . . . .”).
Studies link better sleep with improved athletic performance. Unfortunately, a 2003 study found that 34% of offensive linemen (the biggest players on each club) suffered from sleep apnea. Yet one possible downside is that clubs may learn that a player is failing to get good sleep because of off-the-field behaviors, such as staying out late. Such data might also lead the club to reconsider the player’s short-term or long-term employment.

Third, BioForce HRV (BioForce), a Washington-based company founded by the Seahawks’ former strength and conditioning coach, offers an online and smartphone application that collects data to measure heart rate variability (HRV). BioForce claims that HRV is a measure of an athlete’s “readiness and fatigue.” The software is designed to work with other heart rate monitors.

BioForce’s technology, which it claims is used by NFL clubs, could help both players and their clubs. Heart rate can be a useful measure of an athlete’s exertion levels. By knowing his heart rate, the player (or his coach) can either increase or decrease the intensity of the workout as appropriate. Moreover, as with Fatigue Science’s Readiband, the player may learn of a medical condition that he should take steps to address. However, the club might learn medical information about the player, such as an irregular heartbeat, that could cause the club to reconsider the player’s employment in the short or long term.

Fourth, X2 Biosystems (X2), another Washington-based company, offers two types of sensors designed to measure the force of hits sustained by players and to transmit that data wirelessly to a mobile device. The first sensor is embedded into the player’s mouthguard, and the second is worn as a patch.

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103 See id. at 946 (describing how several members of the Stanford University men’s basketball team demonstrated an improvement in performance after sleep extension over five to seven weeks); Roger S. Smith et al., The Impact of Circadian Misalignment on Athletic Performance in Professional Football Players, 36 SLEEP 1999, 2000 (2013) (“Sleep deprivation can impair performance in athletes and can increase the risks of accidents and morbidity/mortality in the general public.”).


107 Id.


behind the player’s ear.\footnote{Id.} X2 also offers software that can gather data to help diagnose concussions.\footnote{See X2 Head-Trax Head Impact Management Solution, X2 BIOSYSTEMS, http://x2biosystems.com/x2_integrated_concussion/ [https://perma.cc/F7HX-8DRM] (describing X2’s Head-Trax head impact management solution and X2’s Integrated Concussion Evaluation (ICE) app).}

Since the 2013 season, the NFL has required all clubs to use X2’s software to evaluate possible concussions.\footnote{NFL COMM’NS DEP’T, NAT’L FOOTBALL LEAGUE, NFL KICKOFF 2016: INFORMATION GUIDE 44 (2016), https://nflcommunications.com/Documents/2016%20Kickoff%20Guide%20update.pdf [https://perma.cc/7VAG-Y3WF].} If these products are accurate, they may protect the health of players. However, players and the NFLPA have expressed resistance to the sensors.\footnote{Steve Fainaru, No Helmet Sensors for NFL in ’15, ESPN (Feb. 20, 2015), http://www.espn.com/espn/otl/story/_/id/12348395/nfl-teams-use-concussion-sensors-helmets-2015 [https://perma.cc/XH5P-26NE].} Specifically, players are concerned that the data might not be reliable and will result in players being removed from games unnecessarily.\footnote{Id.} Additionally, players are concerned that clubs will use the data to avoid employing players with a history of concussions.\footnote{See, e.g., id. (‘[F]ormer Steeler Hines Ward [said] that . . . sensors would open up a ‘Pandora’s box’ by providing data that could be used to remove players from games or even in contract negotiations.’).}

The NFLPA is aware of these shifts in technology. NFLPA Vice President of Business and Legal Affairs, Sean Sansiveri, has expressed an interest in monetizing new technologies, noting that the NFLPA’s licensing arm has followed emerging technologies, such as wearable technologies, with great interest.\footnote{Liz Mullen, Plugged in: Sean Sansiveri, NFLPA, STREET & SMITH’S SPORTSBUSINESS J. (Mar. 30, 2015), http://www.sportsbusinessdaily.com/Journal/Issues/2015/03/30/People-and-Pop-Culture/Plugged-In.aspx [https://perma.cc/BR82-KFTR].} Not surprisingly, the CBA specifically addresses wearable technologies:

The NFL may require all NFL players to wear during games and practices equipment that contains sensors or other nonobtrusive tracking devices for purposes of collecting information regarding the performance of NFL games, including players’ performances and movements, as well as medical and other player safety-related data. Sensors shall not be placed on helmets without the NFLPA’s consent. Before using sensors for health or medical purposes, the NFL shall obtain the NFLPA’s consent.\footnote{Collective Bargaining Agreement, supra note 32, art. 51, § 13(c).}

As mentioned, the line between a technology being used for “performance” purposes, as opposed to “health or medical” purposes is not clear.\footnote{See supra Section I.B.} Relatedly, the
NFLPA has recently filed a grievance over the use of sleep monitors, alleging that clubs must obtain NFLPA approval before employing such devices.\textsuperscript{120} Next, we turn to genetic tests, another area of technology that presents both opportunities and concerns for NFL players.

3. Genetic Tests

It is undeniable that genes have a major influence in the biological processes required for athletic success, including but not limited to muscle and cartilage formation, metabolism, and blood oxygenation.\textsuperscript{121} Thus, genetic testing may detect both genetic advantages and barriers to successful athletic performance.\textsuperscript{122} The genetic technologies available at present can be divided into two major categories: (1) those associated with performance and (2) those associated with risk of injury.

Of course, genetic potential does not ensure athletic success, or vice versa—it is well known that genotype does not always express itself in phenotype—and the science to test relevant genotypes for sports is still in its infancy. Thus, currently available testing can merely help to predict who will be more successful on the playing field.\textsuperscript{123} A 2013 article summed up the state of research: “[F]ew genes are consistently associated with elite athletic performance, and none are linked strongly enough to warrant their use in predicting athletic success.”\textsuperscript{124} A 2013 \textit{British Journal of Sports Medicine} article went even further: “Current genetic testing has zero predictive power on talent identification and should not be used by athletes, coaches or parents.”\textsuperscript{125} Whatever their prognostic accuracy or lack thereof, such technologies continue to attract the attention of sports stakeholders who will try almost anything to find an edge.

Several companies have already begun to commercialize the potential connection between genetics and athleticism. A 2011 study in the \textit{Journal of...
Personalized Medicine found that thirteen companies were providing sports-related DNA tests or analyses to consumers. The tests were given names such as “Sports DNA Test,” “Sports X Factor Standard Panel,” “Athletic Gene Test,” “Sports Gene Test,” and “Athletics Profile Test” and ranged in price from $79 to about $1100.

Things changed in November 2013 when the FDA ordered one of the leading companies offering sports-specific DNA tests, 23andMe, to stop advertising its health-related genetic tests without FDA authorization. At that time, the FDA had not developed any rules for direct-to-consumer (DTC) genetic testing. Thus, the FDA was concerned about whether the tests were clinically validated and how consumers would interpret their results. Shortly thereafter, 23andMe ceased offering the DTC health-related genetic tests.

However, in February 2015, the FDA approved 23andMe’s DTC test for Bloom Syndrome—a rare genetic condition—leading to speculation that the Agency might approve other DTC genetic tests related to health. Indeed, by the end of the year, the FDA had permitted 23andMe to offer carrier tests for thirty-five other conditions.

While the future of DTC genetic testing in United States remains uncertain, several foreign companies have continued to offer sports-specific genetic tests. In 2005, an Australian professional rugby club tested eighteen

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126 Jennifer K. Wagner & Charmaine D. Royal, Field of Genes: An Investigation of Sports-Related Genetic Testing, 2 J. PERSONALIZED MED. 119, 122 tbl.1 (2012) (identifying 23andMe, Inc.; Advanced Health Care Inc.; American International Biotechnology Services; Asper Bio Tech; Athleticode, Inc.; Atlas Sports Genetics, LLC; Cosmetics DNA; CyGene Direct; DNA4U; Family Tree DNA; Genetic Technologies Limited; My Gene; and Warrior Roots as direct-to-consumer genetic testing companies).

127 Id. at 123-24 tbl. 2 (internal quotation marks omitted).


129 Id. Since then, the FDA has proposed draft guidance that, if adopted, would apply to direct-to-consumer tests. Framework for Regulatory Oversight of Laboratory Developed Tests; Draft Guidance for Industry, Food and Drug Administration Staff, and Clinical Laboratories; Availability, 79 Fed. Reg. 59776 (proposed Oct. 3, 2014).

130 Annas & Elias, supra note 128.


of its twenty-four players for eleven exercise-related genes. In 2011, an unidentified Premier League (one of the world’s leading professional soccer leagues) club was reported to have tested its athletes for genes related to injury risk. In March 2014, the British company DNAFit announced that it was conducting genetic testing of two Premier League soccer clubs and one “leading” European club, although the names of the clubs remained confidential. DNAFit’s testing would reportedly “disclose the players’ balance of speed and endurance genes, whether they have injury-prone genes, and the best nutrition to fit their DNA.” DNAFit has also provided genetic testing to British track athlete Jenny Meadows. Finally, in 2015, Uzbekistan’s Academy of Sciences began testing children for fifty genes to measure their athletic potential.

At present, genetic testing in elite or professional American sports has been more limited than abroad. For example, Major League Baseball (MLB), following prior incidents of fraud, now uses DNA testing in rare cases—and only with the player’s permission—to prove the identity and age of certain Latin American prospects. The National Collegiate Athletic Association (NCAA) currently requires that all Division I student–athletes be tested for the sickle cell gene trait or sign a waiver exempting the school and the NCAA from liability should he or she be harmed as a result of the trait. Sickle cell trait can cause problems for athletes during periods of intense exercise, and while a student-athlete will not be disqualified because of a positive test, he or she will be made aware of the possible complications and taught how to best avoid such complications. NFL clubs test for sickle cell as part of the standard preseason physical if the player has not previously been tested.
Genetic testing for certain conditions has been most controversial in the National Basketball Association (NBA), particularly regarding heart abnormalities. The Chicago Bulls refused to re-sign Eddy Curry based on the possibility that he had hypertrophic cardiomyopathy (HCM), a heart ailment responsible for the death of NBA star Reggie Lewis in 1993. Similarly, following a positive HCM test, the New York Knicks declared Cuttino Mobley unfit to play, leading him to retire. Mobley sued the Knicks for allegedly violating state antidiscrimination laws. After a federal court denied the Knicks’ motion to dismiss an amended complaint in March 2013, the parties settled the case on undisclosed terms in August 2013. Similarly, in 2014, NBA prospect Isaiah Austin withdrew from the draft and gave up his NBA dreams when a pre-draft physical revealed that he suffered from Marfan syndrome, a rare genetic disorder that can weaken the heart and cause it to rupture during strenuous activity.

Despite these public controversies, interest in genetic testing in sports remains extremely high. In 2012, ESPN, in collaboration with 23andMe, tested the DNA of 100 former and current NFL offensive linemen. The results did not indicate that the players had a higher number of genes thought to be associated with athletic performance than the general population. However, researchers have claimed that there are more than 200 genes associated with physical performance and that at least twenty of them might be tied to elite athletic performance. The purpose of this discussion is not to identify the genes that are (or might be) tied to athletic performance, but rather to point out that the possibility of linking genetics with athletic performance remains an area of interest for players and companies.
Analyzing how the NFL and its clubs evaluate player health and ability requires background on the various stakeholders in the NFL, as well as the types of evaluative technologies that are currently available. Having laid this groundwork, in Part II, we turn to the ways in which existing federal employment discrimination protections might regulate the ability of the NFL and its clubs to evaluate their current and aspiring players.

II. WHAT LAWS REGULATE THE USE OF HEALTH AND PERFORMANCE EVALUATIONS BY EMPLOYERS?

As explained above, NFL players are employees of their clubs.152 As employers, the clubs must comply with relevant state and federal employment laws. Additionally, at least one state trial court has found that the NFL (and not just the clubs) exercises the requisite control to be considered an employer of players pursuant to a state drug testing statute, though the decision is controversial.153 Thus, it is possible that courts may treat the NFL as an employer under certain circumstances as well. However, whether the league has an employment relationship with the players is an issue that courts likely decide on a case-by-case basis.

Furthermore, National Football Scouting, which runs the Combine, may also have to abide by certain employment-related laws. As noted in Part I, two-thirds of the NFL’s clubs jointly own and manage National Football Scouting.154 Thus, the Combine appears to be under substantial NFL control, and all of the league’s clubs significantly benefit from the medical exams conducted.155 While National Football Scouting is technically a separate corporate entity, it too might have to comply with employment discrimination legislation to the extent that it operates as an extension of the NFL and its clubs.156 In any event, the clubs use information obtained from the Combine to

152 Collective Bargaining Agreement, supra note 32, pmlb.
153 See Williams v. The Nat’l Football League, No. 27-CV-08-29778, slip op. at 16 (Dist. Ct. Minn. May 6, 2010) (finding that, for purposes of Minnesota’s Drug and Alcohol Testing in the Workplace Act (DATWA), an employment relationship exists between the players and the NFL). This case was appealed in 2011, and the appellate court agreed with the lower court’s conclusion on the issue, explaining, “The district court’s findings in this regard are not clearly erroneous, and we agree that the NFL is an employer, and appellants its employees, within the meaning of DATWA.” Williams v. The Nat’l Football League, 794 N.W.2d 391, 396 (Minn. Ct. App. 2011). But see Brown v. Nat’l Football League, 259 F. Supp. 2d 372, 383 (S.D.N.Y. 2002) (explaining that plaintiff, a former NFL player, was an employee of his specific club—and not the league—for the purpose of determining whether the mandatory arbitration provision of the Collective Bargaining Agreement applied).
154 See supra notes 43–45 and accompanying text.
155 See supra note 49 and accompanying text.
156 See Wilson v. MVM, Inc., 475 F.3d 166, 172-73 (3d Cir. 2007) (outlining multiple tests courts use to determine whether an employer that contracts with another employer exercises sufficient
make hiring decisions. Thus, regardless of National Football Scouting’s potential status as an arm of the clubs or the NFL, the clubs and the NFL cannot use the Combine as a mechanism to violate employment discrimination laws.

This Part outlines the existing law that applies to inquiring about, obtaining, and acting on information about employee health, with a particular focus on NFL players and the evaluative technologies described in Part I. Specifically, this Part explores the protections and the applicability of the employment portions of the ADA and GINA, which govern the ability of employers to collect and to consider applicants’ and employees’ health-related and genetic information. Given the players’ employment relationship with the clubs, as well as possibly with the NFL itself, these laws would apply when those entities evaluate players as described in Part I. While many individual states have their own legislation governing disability and genetic-information discrimination in employment, we focus on the federal protections for simplicity.

A. Americans with Disabilities Act

The first relevant federal employment discrimination provision is Title I of the ADA. With respect to NFL players, the most significant protections relate to discrimination and to medical examinations and inquiries. Importantly, the ADA also prevents employers and unions from engaging in collective bargaining that discriminates against individuals protected by the ADA.157

Title I prohibits covered entities from discriminating against qualified individuals on the basis of disability.158 Significantly, the ADA does not cover all employment-related relationships. Covered entities only include employment control over the latter’s employees so as to qualify as their employer as well). For example, in deciding whether the Rehabilitation Act, a law governing federal employees with disabilities, should apply to the employees of private security firms that contract with the federal government, some courts have applied the “joint employment test,” asking whether one employer while contracting in good faith with an otherwise independent company, has retained for itself sufficient control of the terms and conditions of employment of the employees who are employed by the other employer.” Id. at 173 (internal quotation marks omitted) (quoting NLRB v. Browning-Ferris Indus. of Pa., Inc., 691 F.2d 1117, 1123 (3d Cir. 1982)). Others use a multifactor balancing test to determine if the federal agency controls the “means and manner” of the employee’s performance. Id. (internal quotation marks omitted) (quoting Cmty. for Creative Non-Violence v. Reid, 490 U.S. 730, 751 (1989)).

157 See Condon A. McGlothlen & Gary N. Savine, Eckles v. Consolidated Rail Corp.: Reconciling the ADA with Collective Bargaining Agreements: Is This the Correct Approach?, 46 DEPAUL L. REV. 1043, 1044 (1997) (claiming that the ADA “obviously prohibits an employer and union from entering into a collective bargaining agreement which, for instance, restricts the hiring of persons with AIDS” or members of other protected classes).

158 See 42 U.S.C. § 12112(a) (2012) (“No covered entity shall discriminate against a qualified individual on the basis of disability in regard to job application procedures, the hiring, advancement, or discharge of employees, employee compensation, job training, and other terms, conditions, and privileges of employment.”).
agencies, labor organizations, joint labor-management committees, and employers with fifteen or more employees. While establishing that the defendant is a covered entity is usually rather straightforward, demonstrating that the plaintiff has eligibility to sue can be more complex.

While some ADA provisions apply to all individuals regardless of disability status, in other cases, a plaintiff must first show that he has a “disability” as defined by the statute and second, that he meets the legal definition of a “qualified individual.” The ADA defines disability as “(A) a physical or mental impairment that substantially limits one or more major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having such an impairment.” An individual is qualified if he can perform the essential job functions with or without reasonable accommodation. We discuss both the disability and qualified requirements at greater length later in this Part.

To sue for a violation of Title I, a plaintiff must have filed a complaint with the Equal Employment Opportunity Commission (EEOC) or the relevant state employment agency. A plaintiff can proceed to court only after exhausting these administrative remedies. Because the ADA largely relies on individual claimants filing complaints for enforcement, an employer can theoretically discriminate without consequence, as long as none of its applicants or employees take action. This reality is particularly salient in the hyper-competitive environment of the NFL and other professional sports, where players are likely to be extremely hesitant to do anything that would jeopardize their already slim chances of success. Hence, the ADA’s private enforcement mechanism, which requires self-selection, might explain why so few professional athletes have filed cases despite the presence of widespread potential violations.

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159 Id. § 12111(2).
160 Id. id. § 12111(5)(A)–(B).
161 Id. § 12102(1).
162 Id. § 12111(8).
163 Id. § 12111(8).
164 Id. § 12111(8).
165 See infra subsections II.A.2.a.i–ii.
166 THE BUREAU OF NAT'L AFFAIRS, INC., FAIR EMPLOYMENT PRACTICES MANUAL § 431:5 (2016). The ADA adopts the same pre-lawsuit procedures as Title VII of the Civil Rights Act with respect to its employment discrimination provisions. See Filing a Lawsuit in Federal Court, U.S. EQUAL EMP. OPPORTUNITY COMMISSION, https://www.eeoc.gov/federal/fed_employees/lawsuit.cfm (explaining that the “law requires that you first try to settle your discrimination complaint by going through the administrative complaint process” and noting that the same applies for Title VII claims).
To be clear, employees—including NFL players—cannot prospectively waive their legal rights under the ADA or GINA. For example, while the CBA and the players’ contracts contain clauses requiring arbitration of employment-related disputes, the EEOC will accept and process charges regardless of whether the complainant is bound by an arbitration clause. Indeed the EEOC “may pursue injunctive relief and seek any other relief not available in the arbitral forum even on behalf of a party that signed a pre-dispute arbitration agreement.”

We now turn to the types of claims available under Title I: (1) claims for unlawful disability-related inquiries and medical examinations and (2) claims for discrimination on the basis of actual, past, or perceived disability.

1. Medical Exams and Disability-Related Inquiries

The statute includes a section specifically governing “medical examinations and inquiries.” It prohibits employers from asking questions or ordering a medical examination to determine whether an applicant or an employee is a person with a disability. Importantly, Title I’s medical examination provisions...
apply with equal force to applicants and employees both with and without disabilities.\footnote{See Michelle A. Travis, Lashing Back at the ADA Backlash: How the Americans with Disabilities Act Benefits Americans Without Disabilities, 76 TENN. L. REV. 311, 337 (2009) (highlighting that the pre-offer medical examination provisions of the ADA refer to all “‘job applicant[s],’ rather than just to qualified individuals with a disability, as found in other ADA sections” (quoting 42 U.S.C. § 1211(d)(2)(A))}. As a result, an individual does \textit{not} have to establish a statutorily defined disability or show that he is a qualified individual when suing for an improper exam or inquiry.\footnote{See LEX K. LARSON, EMPLOYMENT DISCRIMINATION § 154.07(4)(a) (2d ed. 2011) (“Questions have arisen as to who has standing to enforce the ADA provisions governing the employer’s access to and the use of medical information. The few circuits addressing these questions have determined that to have standing under these provisions, a plaintiff need not establish that he or she is a qualified individual with a disability.” (citations omitted)). Larson specifically cites the Eighth, Ninth, Tenth, and Eleventh Circuits, and several district courts, as examples of courts without any such requirement. \textit{Id.}}

At the end of this Part, Table 1 summarizes the ADA provisions concerning medical examinations and disability-related inquiries.

a. \textit{Claims}

While the statute and its accompanying regulations do not contain a clear definition of a disability-related inquiry or medical examination, the EEOC has offered some guidance. According to the EEOC, a disability-related inquiry is a “question (or series of questions) that is likely to elicit information about a disability.”\footnote{EEOC, EEOC ENFORCEMENT GUIDANCE 915.002 (July 27, 2000), https://www.eeoc.gov/policy/docs/guidance-inquiries.html [https://perma.cc/6SXM-Y9BC] (emphasis omitted).} Disability-related inquiries include asking about information that would clearly be of interest to NFL clubs, such as whether an individual takes medication or if he has ever been disabled.\footnote{\textit{Id.}} Likewise, the EEOC guidance defines a “medical examination” as a “procedure or test that seeks information about an individual’s physical or mental impairments or health.”\footnote{\textit{Id.}}

The EEOC lists seven criteria for determining whether a particular evaluation constitutes a medical exam:

\begin{itemize}
    \item (1) whether the test is administered by a health care professional;
    \item (2) whether the test is interpreted by a health care professional;
    \item (3) whether the test is designed to reveal an impairment or physical or mental health;
    \item (4) whether the test is invasive;
    \item (5) whether the test measures an employee’s performance of a task or measures his/her physiological responses to performing the task;
    \item (6) whether the test normally is given in a medical setting; and,
    \item (7) whether medical equipment is used.\footnote{\textit{Id.}}
\end{itemize}
Examples include a wide range of familiar medical screenings and procedures like vision tests, blood pressure and cholesterol evaluations, range-of-motion tests designed to measure strength and motor function, psychological tests, and diagnostic procedures like MRIs and CAT scans.\textsuperscript{180}

Because the ADA covers both physical and mental disabilities, its medical inquiry and examination provisions apply with equal force to assessments of psychological health.\textsuperscript{181} The ADA, therefore, covers a wide range of evaluations, including many examinations and inquiries that are currently part of the Combine, as well as the NFL physicals described in Part I.\textsuperscript{182} Moreover, as mentioned, collective bargaining agreements cannot prospectively waive substantive antidiscrimination rights.\textsuperscript{183}

To summarize, to the extent that the CBA—or the common practices of the NFL, the clubs, and National Football Scouting—require players or prospective players to submit to medical examinations or answer questions that might reveal an impairment, those entities could be in violation of the ADA. Whether or not those evaluations are lawful will depend at least in part on the timing of the examination or inquiry because the law has different legal standards for similar practices: (1) pre-employment, (2) post-offer, and (3) during employment.

i. Pre-Employment

Title I forbids pre-employment medical exams or inquiries regarding whether an applicant is “an individual with a disability or as to the nature or severity of such disability.”\textsuperscript{184} However, the law explicitly allows “preemployment inquiries [but not medical exams] into the ability of an applicant to perform job-related functions.”\textsuperscript{185} For example, an employer might explain the physical rigors of the job to the prospective employee and then ask the applicant whether he or she could perform those functions, with or without reasonable accommodation. In addition to inquiring about specific job-related functions, an employer could also make a general inquiry regarding whether the individual has a physical or mental impairment that would prevent him or her from performing essential job

\textsuperscript{180} \textit{Id.}

\textsuperscript{181} NFL clubs are very concerned about the psychological health of prospects. \textit{See}, e.g., Mike Florio, \textit{Confusing Reports Emerge About Randy Gregory}, NBC SPORTS: PROFootballTalk (Apr. 29, 2015, 2:43 PM), http://profootballtalk.nbc sports.com/2015/04/29/confusing-reports-emerge-about-randy-gregory/ [http://perma.cc/P9UE-443U] (reporting that prospect Randy Gregory’s draft status was falling due to “concern about [his] ability to handle the mental rigors of professional football” (internal quotation marks omitted)).

\textsuperscript{182} \textit{See supra} subsection I.B.1.

\textsuperscript{183} \textit{See supra} note 168 and accompanying text.


\textsuperscript{185} \textit{Id.} § 12112(d)(2)(B). Unfortunately, the ADA does not explicitly define applicant, leaving some question about whether a participant at the Combine qualifies as an applicant for employment by the NFL or NFL clubs. We assume that the participant does.
functions. Thus, an employer might ask whether there is anything the applicant thinks could impede his or her ability to perform the job in question. Again, these provisions apply to all job applicants, not just qualified individuals with disabilities.

As will be discussed at greater length below, these provisions are particularly relevant to the activities of the NFL and its clubs at the Combine, which include a number of medical examinations before clubs draft or actually offer any of the prospects employment. The Combine is an invite-only recruiting event: approximately 300 of the best college players are invited to participate. Additionally, the authorizations the players sign before the Combine authorize parties to use the released information only in relation to the players “actual or potential employment in the National Football League.” Given the targeted and elite nature of the Combine, the screenings that take place are reasonably likely to be deemed pre-employment exams (in contrast to a step even before that), although the issue has never been litigated.

ii. Post-Offer (Employee Entrance Examination)

The ADA permits post-offer medical examinations when (1) they are imposed on all entering employees regardless of disability; (2) their results are kept confidential, meaning the information is collected and maintained in a medical file separate from the employee’s personnel file and not shared except for accommodation, first aid and safety, or compliance reasons; and (3) the information obtained is used only in accordance with the statute (i.e., not to screen out individuals with disabilities or otherwise discriminate unless related to job performance). While the results of the post-offer exam are confidential, an employer can require that an employee sign an authorization disclosing all of her health records as a condition of employment (with the exception of genetic

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187 See supra note 174 and accompanying text.
188 See infra subsection II.A.1.b.i.
189 See supra note 29 and accompanying text.
190 Online Appendix C, supra note 62, at 3, 7.
191 While Title I of the ADA applies to stages of review that are potentially earlier than pre-employment, such as open casting calls, remains unclear. Some, however, have advanced such an argument. See, e.g., Carley G. Mak, *Fame, Fortune, and . . . Fourteen-Hour Days? Open Casting Calls for Reality TV Contestants Are Pre-Employment Tests and Public Accommodations Under the Americans with Disabilities Act*, 26 LOY. L.A. ENT. L. REV. 523, 544 (2006) (arguing that the ADA’s pre-employment provisions apply to open casting calls for reality television programs).
193 Rothstein, supra note 186, at 41-42.
information pursuant to GINA, as discussed below. Put simply, an employer can condition an offer of employment on releasing otherwise private personal health information.

Technically, post-offer exams need not be job-related as long as they meet the three criteria above. However, if the employer revokes the offer of employment because an employee fails to fulfill a particular qualification standard, it must show that the exclusionary qualification standard is job-related and consistent with business necessity. For instance, a truck driving company might condition job offers on the candidate having 20/20 vision. As long as all employees have to pass a vision test, the results of the exam are confidential, and the company does not use them to violate the ADA, the examination is lawful under the ADA's medical exam provisions. But if an employee who fails the vision test sues, the employer would have to demonstrate that the standards for passing that exam are job-related and consistent with business necessity. In other words, the truck driving company would have to prove that 20/20 vision relates to driving trucks and that the vision test serves a legitimate business purpose in assuring that the company runs safely and efficiently. During litigation, the employee may be able to establish that 20/40 vision—not 20/20 vision—is sufficient for driving a truck. Thus, while the vision test might not be an unlawful medical exam, the underlying qualification standard could violate the ADA. Ironically then, the law technically allows employers to obtain information during preplacement examinations that cannot ultimately be used to make decisions.

iii. During Employment

Title I also regulates medical exams and inquiries after the employment relationship has been established. With respect to current employees, it provides,

A covered entity shall not require a medical examination and shall not make inquiries of an employee as to whether such employee is an individual

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194 See infra notes 341–42 and accompanying text.
195 See 29 C.F.R. § 1630.14(b)(3) (2015) ("Medical examinations conducted in accordance with this section do not have to be job-related and consistent with business necessity. However, if certain criteria are used to screen out an employee or employees with disabilities as a result of such an examination or inquiry, the exclusionary criteria must be job-related and consistent with business necessity, and performance of the essential job functions cannot be accomplished with reasonable accommodation as required in this part."); see also EEOC, supra note 176 (stating these conditions to answer the question of whether "an employer [may] ask an employee for documentation when s/he requires a reasonable accommodation" (emphasis omitted)).
196 See Mark A. Rothstein et al., Limiting Occupational Medical Evaluations Under the Americans with Disabilities Act and the Genetic Information Nondiscrimination Act, 41 AM. J.L. & MED. 523, 541 (2015) ("The preplacement rules established by the ADA lead to the anomalous result that employers are legally permitted to obtain health information that they are not legally permitted to use in the decision-making process.").
with a disability or as to the nature or severity of the disability, unless such examination or inquiry is shown to be job-related and consistent with business necessity.\footnote{42 U.S.C. § 12112(d)(4)(A).}

Generally, an employer-mandated medical inquiry is both “job-related” and “consistent with business necessity” if the employer “has a reasonable belief, based on objective evidence, that: (1) an employee’s ability to perform essential job functions will be impaired by a medical condition; or (2) an employee will pose a direct threat due to a medical condition.”\footnote{EEOC, supra note 176, at n.40 (footnotes omitted) (internal quotation marks omitted).} Thus, job-relatedness requires that the inquiry pertain to the specific job in question, whereas business necessity speaks to whether the particular examination is necessary to achieve a legitimate business purpose.

The statute’s implementing regulations include certain exceptions, allowing “voluntary medical examinations and activities, including voluntary medical histories,”\footnote{29 C.F.R. § 1630.14(d).} in conjunction with employee health programs\footnote{Information obtained from these voluntary exams is subject to the same confidentiality requirements and exceptions as the results of the employee entrance exams described above. 42 U.S.C. § 12112(d)(4)(C). See supra note 192 and accompanying text for the requirements.} such as employer-provided wellness initiatives and “inquiries into the ability of an employee to perform job-related functions.”\footnote{42 U.S.C. § 12112(d)(4)(B).} Yet for reasons discussed below, we do not think this exception is especially relevant to our context.\footnote{See infra text accompanying notes 231–32.}

b. \textit{Specific NFL Evaluative Technologies}

The ADA’s disability-related inquiry and medical exam provisions apply to several of the kinds of evaluations described in Part I, including traditional medical examinations and athletic drills, as well as burgeoning nongenetic and genetic technologies.

i. Medical Examinations and Athletic Drills

The ADA could apply to many of the traditional medical examinations and athletic drills conducted by the NFL, the clubs, and National Football Scouting, both before and during a player’s employment. As discussed, pursuant to the EEOC’s guidance, medical examinations include vision, blood pressure, and range-of-motion tests.\footnote{See supra note 180 and accompanying text. For a detailed description of the various types of medical screenings covered by the ADA, see infra subsection II.A.1.a.} The statute covers most mental and physical
assessments. Moreover, questions related to a current or prospective player's health and fitness could constitute disability-related inquiries as they are "likely to elicit information about a disability." It is more likely that the ADA will apply to medical examinations and physicals, which assess health and fitness, as opposed to athletic drills, which principally assess skills and performance. However, given the EEOC's broad construction of medical examinations and inquiries, the ADA might cover an athletic drill that reveals or could reveal information about a potential disability. Whether an athletic drill could be construed as a disability-related inquiry or a medical examination would have to be evaluated on a case-by-case basis.

Of course, the ADA does not create an outright ban on these kinds of evaluations. It simply requires that they meet certain standards. For example, the NFL or a club could ask a prospective player about his health, as it pertains to his ability to play football—i.e., to perform "job-related functions." Similarly, the club may make disability-related inquiries and require medical examinations after making a conditional offer of employment, as long as it requires all entering employees to undergo the same evaluations and the results are kept confidential and are not used to discriminate. Finally, once a player begins employment, the NFL or a club can make disability-related inquiries and impose medical examinations that are job-related and consistent with business necessity.

The upshot of this analysis is that at present, various parts of the NFL scouting process may violate the ADA. As mentioned, the Combine includes pre-employment medical examinations, such as x-rays, MRIs, EKGs, and blood tests. Additionally, players may be asked sensitive questions during Combine interviews, including queries that relate to current or previous disabilities. Indeed, one of the principal purposes of the Combine is to determine whether a player is "injury prone." In reviewing other work from the Football Players Health Study, the NFL stated that the comprehensive medical examination at the

204. See supra note 178 and accompanying text.
205. EEOC, supra note 176; see also supra text accompanying note 176.
206. See supra note 185 and accompanying text.
207. See supra note 192 and accompanying text. Recall that an employer can lawfully condition an offer on passing a medical exam. Consequently, if a club has complied with ADA's employee entrance exam provisions but withdraws its employment offer after a prospective player fails a post-offer medical examination, that action would not violate the statute.
209. See supra note 52 and accompanying text.
211. Hunsinger Benbow, supra note 54.
Combine is “a traditional employer ‘fit-for-service’ examination, common across numerous industries.”\textsuperscript{212} While job-related inquiries are permissible, however, \textit{any pre-employment medical examinations violate the ADA}.\textsuperscript{213}

It might be argued that National Football Scouting’s status as a legally distinct entity\textsuperscript{214} could insulate it (and the NFL) from liability, as National Football Scouting itself does not employ players. Yet if a court determined that National Football Scouting is under the control of the NFL or some or all of its clubs (or—if short of actual control—its activities are legally imputed to those entities under the ADA), the evaluations conducted at the Combine would seem to constitute clear violations of the ADA’s ban on pre-employment medical exams. Moreover, even if National Football Scouting is not acting as an arm of the NFL or of the clubs, it nonetheless provides the venue for the NFL and the clubs to conduct activities that violate the ADA. The Combine allows the NFL and the clubs to obtain exactly the type of health-related information that the ADA is designed to regulate. It would defeat the purpose of the ADA’s medical exam and inquiry provisions if an employer could claim it did not violate the law because, instead of conducting the exam directly, it contracted with a third-party medical professional. Similarly, it would defeat the purpose of the ADA’s medical exam and inquiry provisions if the NFL and its clubs could place themselves outside the scope of the ADA by contracting with National Football Scouting to perform evaluations. While this particular issue has not yet been litigated—and may reflect a statutory gap—our view is that pre-employment exams conducted at the Combine likely violate the ADA.

Furthermore, the clubs’ post-offer customs might also violate the ADA in that they are not universal and confidential. Specifically, the clubs may violate the ADA to the extent that the post-offer medical examinations are not administered uniformly. Thus, any special screening of an individual player would be highly suspect. Moreover, the widely publicized nature of the results calls their confidentiality into question.\textsuperscript{215}

\begin{itemize}
\item \textsuperscript{212} Comments and Corrections from the Nat’l Football League, to I. Glenn Cohen & Holly Fernandez Lynch Concerning the Report, Protecting and Promoting the Health of NFL Players: Legal and Ethical Analysis and Recommendations (June 24, 2016) (on file with authors).
\item \textsuperscript{213} See supra note 185 and accompanying text.
\item \textsuperscript{214} See supra notes 43–45 and accompanying text.
\item \textsuperscript{215} A federal district court rejected the National Hockey League’s argument that player health information is not discoverable due to the ADA’s confidentiality provisions and implied that the league itself may be violating the ADA. See In re Nat’l Hockey League Players’ Concussion Injury Litig., 120 F. Supp. 3d 942, 951 (D. Minn. 2015) (“[T]he U.S. Clubs disclose players’ medical information to parties other than simply supervisors and managers, whether those parties are retained by the U.S. Clubs or are true third parties, such as the media. This redisclosure of players’ medical information by the U.S. Clubs themselves could arguably be violative of the ADA’s confidentiality provisions, applying the U.S. Clubs’ reading of the statute.” (citation omitted)).
\end{itemize}
ii. Nongenetic Technologies

The ADA’s limitations on medical examinations may also apply to some of the innovative, nongenetic technologies described in Part I. As a threshold matter, one must first determine if those evaluations constitute medical examinations within the meaning of the statute. Again, courts would likely assess these cases individually by assessing whether a particular technology meets the relevant criteria outlined by the EEOC.

Insofar as technology relies on traditional medical assessments, like blood testing or imaging techniques, they would appear to have at least some of the defining characteristics of ADA-covered medical examinations. However, with regard to wearable technologies like Catapult’s GPS device, Fatigue Science’s wristband, BioForce’s app, and X2’s sensors, the ADA’s applicability is less clear. This ambiguity revolves around the question of whether these sensors are medical devices (or are collecting medical or health-related data) when they monitor speed, force, movement, sleep, and heart rate.

Perhaps not surprisingly, the NFL and the NFLPA are currently in negotiations concerning whether the information collected by wearable sensors merely measures performance or is for “health and medical purposes.” Specifically, collecting data on “performance” is permissible under the CBA, whereas collecting data for “health or medical purposes” requires NFLPA consent.

Whether wearable technologies are deemed medical devices or found to collect health or medical information will determine if the ADA applies. Using these new technologies does not clearly meet the definition of a medical examination. They do not require the expertise of a healthcare professional and do not need to be employed in a medical setting. With some exceptions (such as the pill described earlier), many of the technologies are not invasive, nor are they obviously medical equipment. While some wearable technologies could reveal an impairment, devices that measure speed or heart rate are not designed for this purpose. Of the seven defining characteristics of ADA-regulated medical exams, wearable technology appears to consistently meet only one: it “measures an employee’s performance of a task or measures his/her physiological responses to performing the task.”

Although the EEOC’s criteria

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216 See supra subsection I.B.2.
217 See supra notes 178–80 and accompanying text.
218 For example, they could be administered and interpreted by healthcare professionals, capable of revealing impairments or measuring performance, and involve medical equipment.
219 This information was confidentially provided by the NFLPA on June 28, 2016.
220 Collective Bargaining Agreement, supra note 32, art. 51, § 13(c).
221 See supra subsection I.B.2.
222 EEOC, supra note 176.
weigh against designating these technologies as medical examinations, this area lacks robust precedent leading to a clear resolution.

In theory, assessing performance could detect the presence of an impairment, even if the technique being used is not considered medical. For example, having a player wear a monitor while sleeping could detect signs of previously undiagnosed sleep apnea. Additionally, collecting performance-related data over time could also lead to the discovery of an impairment if the player experiences subtle declines in ability that would have otherwise gone unnoticed. Thus, whether the ADA applies to the kinds of innovative technologies described in Part I would depend on how broadly courts apply the term “medical examination.”

iii. Genetic Tests

Although some genetic testing, such as paternity, ancestry, or forensic tests, do not relate to health, the varieties that would be of most interest to the NFL and its clubs include tests designed either to predict or enhance performance or to determine the propensity for injury. By revealing a player’s susceptibility to injury or disease, they arguably constitute medical examinations, thereby triggering the ADA’s restrictions on medical examinations and inquiries. As with other kinds of medical examinations, the ADA prohibits pre-employment genetic tests. Thus, a club that administers a pre-offer genetic test for the sickle cell disease or trait violates the law. Genetic testing would be ADA-permissible post-offer if everyone is tested, the tests are confidential, and the results are used in accordance with the statute.\footnote{223}{42 U.S.C. § 12112(d)(3) (2012).} Finally, genetic testing during employment would need to be job-related and consistent with business necessity.\footnote{224}{See id. § 12112(d)(4)(A).} However, as will be discussed below, GINA regulates genetic testing in employment far more strictly.\footnote{225}{See infra Section II.B.}

c. Possible Responses and Defenses

While the ADA’s protections appear robust at first blush, various exceptions and defenses may allow the NFL, the clubs, and National Football Scouting to lawfully obtain health-related information about current and prospective players. To illustrate, let us return to our hypothetical player, James, introduced at the beginning of this Article. Suppose that, as a prospective player, he went to the Combine and was asked to provide his family medical history, to agree to an EKG, to perform a running drill, to swallow a sensory pill, and to take a genetic test. Whether any—or perhaps all—of these kinds of evaluations would violate the ADA’s prohibition on pre-
employment disability-related inquiries and medical examinations depends on how the EEOC and the courts interpret the scope of the statute.

To start, if the court determines that National Football Scouting is completely distinct from the NFL and the clubs, National Football Scouting would not be a covered entity under Title I because it is not an employer of NFL players, an employment agency, a labor organization, or a joint-management committee. However, if a court determines that Title I of the ADA covers National Football Scouting, the statute would prohibit any pre-employment medical examinations at the Combine. Perhaps, National Football Scouting, the NFL, and the clubs could defend the request for family medical history as a job-related inquiry; however, the EKG and the genetic test would be strictly forbidden as medical examinations. Whether the running drills or the pill violate the ADA would depend on how expansively the court in question interpreted the meaning of a medical examination. The NFL and the clubs could, of course, argue that these measures indicate performance, not health, putting them outside the reach of the statute.

Given the level of fitness required to play professional football, a wide-range of health-related questions could potentially be related to a prospective player’s ability to perform job-related functions. Thus, the NFL and the clubs likely do not violate the ADA by asking interview questions that might reveal disability-related information before the individual has an employment offer; put differently, the NFL and its clubs could very likely defend most inquiries by establishing their relevance to an individual’s ability to play football. These inquiries could range from specific (e.g., the average wide receiver runs a forty-yard post route in under five seconds: is that something you would be able to do?) or general (e.g., is there anything that would impede your ability to perform the essential functions of an NFL football player?). If challenged, the NFL or the clubs could assert that the inquiries speak to the individual’s ability to play professional football. Recall, however, that this exception is for job-related inquiries, not medical exams. Pre-offer medical examinations are forbidden regardless of job-relatedness.

That said, pursuant to the ADA, the NFL and the clubs could conduct medical examinations of prospective players after those individuals receive employment offers from the clubs (since the Combine is pre-hiring, its medical examinations would always be pre-offer). Importantly, to comply with the law, the NFL and the clubs would have to ensure that the results of the post-offer medical examinations are kept confidential, that the post-offer medical examinations are universal, and that the results are only used in accordance with the ADA. However, news stories about medical examinations conducted during NFL free agency indicate that the results of at least some

players’ medical examinations are currently released to the press.\textsuperscript{227} As mentioned in Part I, players sign broad authorizations before participating in the Combine.\textsuperscript{228} While it is possible that the players are waiving their legally protected confidentiality right in the hopes of signing a particular contract, they cannot consent to violations of the law.\textsuperscript{229} Thus, to avoid running afoul of the ADA, the clubs likely need to institute more robust confidentiality protections for the results of post-offer medical examinations.

Thus, depending on how expansively the court interprets the meaning of a medical examination, the NFL or the clubs could perform those same five evaluations described above post-offer. (Of course if the drill and the pill are not considered “disability-related” or “medical,” the ADA would not apply and the NFL and the clubs could administer them at any time.) In fact, the NFL and the clubs could condition an individual’s offer on a prospective player’s passing a particular evaluation, as well as on releasing his medical records. However, insofar as the evaluations are not universal or confidential, the ADA would forbid them. Thus, should James be singled out for an EKG or have the results from the EKG released to the press, he could sue and the NFL and the clubs would not have a clear defense.

Finally, should the NFL or the clubs decide to evaluate players throughout their employment—which given the physical nature of the sport, they certainly will want to do so—they may conduct medical examinations that are job-related and consistent with business necessity. In other words, a wide variety of evaluations could relate to playing football. Because health and athletic performance are linked, those entities could easily argue that medical examinations of the players serve the legitimate business purpose of ensuring safe and effective play. This exception is broad enough to cover medical examinations following an injury because an injury could affect an individual’s ability to play (job-related), and treating the current injury, as well as preventing re-injury, are legitimate concerns for the player’s health and safety (business necessity). For example, a club could authorize an MRI of a player who suffered a knee injury. Thus, most medical examinations of current NFL players would most likely be allowed under the ADA, as they would tend to be both job-related and consistent with business necessity.

\textsuperscript{227} See, e.g., Stapleton, supra note 77.
\textsuperscript{228} See supra note 62 and accompanying text. For copies of these waivers, see Online Appendix C, supra note 62.
\textsuperscript{229} A player himself could certainly disclose his results to the press. See 1 GARY S. MARX WITH DEBORAH ROSS, DISABILITY LAW COMPLIANCE MANUAL § 3:40 (2d ed. 2016) (“The ADA does not prohibit an individual with a disability from voluntarily disclosing his or her own medical information to persons beyond those to whom an employer can disclose such information.”). However, his employer cannot pressure him to do so. Id.
As noted, applicants and employees cannot consent to violations of the law.\textsuperscript{230} While the statute does allow employees and applicants to volunteer health and medical information under certain circumstances, such as wellness programs designed to lower health insurance costs,\textsuperscript{231} none of the exceptions look like fertile ground for an argument that otherwise unlawful evaluations are voluntary. However, it is worth noting that a player could voluntarily offer medical information, for example to assuage the concerns of a club. Yet even if a prospective player voluntarily provides the NFL or the clubs with information regulated by the ADA, the voluntariness of the disclosure does not immunize the NFL or the clubs from the statute’s antidiscrimination provisions: they still could not use that information to discriminate on the basis of an actual, past, or perceived disability.\textsuperscript{232}

It is true that upon joining an NFL club (post-offer, and actually employed), players are required to make certain health-related disclosures pursuant to their contracts and the CBA. The standard NFL player contract contains a disclosure provision stating,

\begin{quote}
Player represents to Club that he is and will maintain himself in excellent physical condition. Player will undergo a complete physical examination by the Club physician upon Club request, during which physical examination \textit{Player agrees to make full and complete disclosure of any physical or mental condition known to him which might impair his performance under this contract and to respond fully and in good faith when questioned by the Club physician about such condition.} If Player fails to establish or maintain his excellent physical condition to the satisfaction of the Club physician, or make the required full and complete disclosure and good faith responses to the Club physician, then Club may terminate this contract.
\end{quote}

Further, the collectively bargained Notice of Termination lists “fail[ing] to make full and complete disclosure of your physical or mental condition during a physical examination” as an accepted ground for termination.\textsuperscript{234}

\textsuperscript{230} See \textit{LARSON}, supra note 175, § 157.06 (“Since the ADA enforcement procedures are taken from Title VII, and it is well-settled that under Title VII there can be no prospective waiver of an individual’s claims, there can be no prospective waiver of an individual’s ADA claims. However, the waiver of an ADA claim as part of a settlement or severance agreement will be considered valid provided that the waiver is knowing and voluntary, as evidenced by the totality of the circumstances.” (footnotes omitted)).

\textsuperscript{231} See supra note 200 and accompanying text.

\textsuperscript{232} See supra note 200.


\textsuperscript{234} \textit{id.} app. H (“You are hereby notified that effective immediately your NFL Player Contract(s) with the Club covering the football season(s) has (have) been terminated for the reason(s) checked below: . . . You have failed to make full and complete disclosure of your physical or mental condition during a physical examination.”).
These provisions put players in a difficult position, as they create an incentive to avoid being formally diagnosed with a condition to avoid triggering the obligation to disclose. But avoiding diagnostic tests and medical exams could delay treatment and lead to further harm as the illness or injury worsens over time. Additionally, the collectively bargained nature of these disclosures and releases creates additional pressure on the players, further undermining their purported voluntariness.

Moreover, a failure to adequately disclose can undermine a player's potential injury grievance. Because of the players' disclosure obligations, the CBA presumes that any player who passed the club physical is fit to play. Consequently, alleging that "the player failed to make full and complete disclosure of his known physical or mental condition when questioned during a physical examination by the Club" is a special defense that a club can raise in its answer to a player's injury grievance.

From a practical perspective, given the physical nature of the job, insofar as the ADA allows employers to make job-related inquiries (both before and during employment) and conduct medical exams post-offer and during employment, the NFL and its clubs would have a robust defense to demanding such inquiries and exams at the permissible times. That is not to say, however, that the NFL and its clubs can simply require any and all medical inquiries and examinations. While assessing the range of motion of a quarterback's arm quite clearly pertains to his ability to perform his job, conducting a dental exam appears less relevant. Courts would likely make these determinations on a case-by-case basis.

2. Discrimination

In addition to its medical examination and disability-related inquiry provisions, the ADA also forbids adverse employment actions against qualified individuals on the basis of a disability. At the end of this Section, Table 2 summarizes the ADA provisions concerning discrimination against qualified individuals with disabilities.

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235 An injury grievance is "a claim or complaint that, at the time a player's NFL Player Contract or Practice Squad Player Contract was terminated by a Club, the player was physically unable to perform the services required of him by that contract because of an injury incurred in the performance of his services under that contract." Id. art. 44, § 1.

236 See id. art. 44, § 12 ("If the player passes the physical examination of the Club prior to the preseason training camp for the year in question, having made full and complete disclosure of his known physical and mental condition when questioned by the Club physician during the physical examination, it will be presumed that such player was physically fit to play football on the date of such examination.").

237 Id. art. 44, § 3(a)(2).
a. Claims

Title I contains a rather lengthy description of what constitutes discrimination. Section 12112(a) states, “No covered entity shall discriminate against a qualified individual on the basis of disability in regard to job application procedures, the hiring, advancement, or discharge of employees, employee compensation, job training, and other terms, conditions, and privileges of employment.” The statute includes several subsections explaining how to construe its antidiscrimination mandate. Section 12112(b) explains that discrimination against a qualified individual with a disability covers a wide range of employer actions that both intentionally and unintentionally have an adverse effect on people with disabilities, including classifying individuals on the basis of disability; participating in discriminatory contracts or other agreements with employment-related entities; and adopting qualification standards that tend to screen out individuals with disabilities, unless those standards are job-related and consistent with business necessity.

i. Disability

Unlike the medical examination provisions, the ADA’s discrimination sections require litigants to establish that they are qualified individuals with disabilities. Recall that the ADA defines disability as “(A) a physical or mental impairment that substantially limits one or more major life activities of such individual; (B) a record of such an impairment; or (C) being regarded as having such an impairment.” It goes on to explain that

[a]n individual meets the requirement of “being regarded as having such an impairment” if the individual establishes that he or she has been subjected to an action prohibited under this chapter because of an actual or perceived physical or mental impairment whether or not the impairment limits or is perceived to limit a major life activity.

Consequently, to be a person “with a disability” pursuant to the ADA, an individual does not have to be currently experiencing a substantially limiting impairment if she has previously had such an impairment (record of) or is

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238 42 U.S.C. § 12112(a). At present, courts are split on the question of whether claimants must establish that the disability was simply a motivating factor or whether it must be a but-for cause of the discrimination. See LARSON, supra note 175, § 156.02 (citing the Second, Ninth, and Eleventh Circuits as examples of courts that have adopted the “widely recognized [view] that . . . it is not necessary . . . to demonstrate that the disability was the sole cause of the adverse employment decision” but noting that the Sixth and Tenth Circuits follow the sole cause standard).

239 42 U.S.C. § 12112(b).

240 See supra notes 174–75 and accompanying text.

241 42 U.S.C. § 12102(1).

242 Id. § 12102(3)(A).
perceived by her employer to be impaired (regarded as). Impairments cover a wide range of both physical and mental conditions, including addiction.

With respect to major life activities, in the ADA Amendments Act of 2008 (ADAAA), Congress added a nonexhaustive list to the statute. Accordingly, “major life activities include, but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working,” as well as “major bodily function[s].” Major bodily functions “include[e] but [are] not limited to, functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions.” These additions to the law were intended to counteract previously restrictive court interpretations of “major life activity.”

Lastly, the “regarded as” prong, as defined by the ADAAA, could potentially capture a wide range of conduct. This definition of disability is intentionally broad.

At first blush, it may seem counterintuitive that NFL players—elite athletes in peak physical condition—might meet the legal definition of “individuals with disabilities.” However, Congress used “disability” as a term of art in the statute with a specific meaning. In addition to players with chronic conditions like heart problems or diabetes, the ADA could potentially cover injured players, depending on the degree of the injury (actual impairment), the history of injuries (record of),

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243 See 29 C.F.R. § 1630.2(h)(1)–(2) (2012) (providing examples of physical and mental impairments).
244 See JOHN F. BUCKLEY, EQUAL EMPLOYMENT OPPORTUNITY: 2016 COMPLIANCE GUIDE § 7.08[A][3] (2016) (“Persons addicted to drugs, but who are no longer using drugs illegally and are receiving treatment for drug addiction . . . are protected by the ADA . . . on the basis of past drug addiction.”).
247 Id. § 12102(3)(B).
248 Id.
249 See Jessica L. Roberts, Healthism and the Law of Employment Discrimination, 99 IOWA L. REV. 571, 596 n.163, 597 (2014) (citing Toyota Motor Manufacturing, Kentucky, Inc. v. Williams, 534 U.S. 184, 200-01 (2002), superseded by statute, § 2(b)(4)–(5), 122 Stat. at 3554—which restricted the scope of major life activities to those "central to most people's daily lives," as opposed to "merely a task, or class of tasks, that are required for the claimant's job,” as an example of the kind of restrictive Supreme Court interpretation of disability that the ADAAA was meant to counteract).
251 See id. § 2(b)(4), 122 Stat. at 3553 ("[T]he holdings of the Supreme Court in Sutton v. United Air Lines, Inc., 527 U.S. 471 (1999) and its companion cases have narrowed the broad scope of protection intended to be afforded by the ADA.").
or the player’s risk of injury (regarded as). As a result, a player does not have to be experiencing an actual impairment to be considered an individual with a disability.

For example, imagine a player injures himself seriously but not permanently.\textsuperscript{252} Short-term impairments constitute disabilities when they are “sufficiently severe.”\textsuperscript{253} Hence, under existing law, he might be able to assert that his temporary injury is severe enough to qualify as a disability.\textsuperscript{254} However, courts will make these determinations on a case-by-case basis. For example, while the inability to walk for seven months could constitute a disability for ADA purposes, a torn ACL might not.\textsuperscript{255} Likewise, if a prospective or current player at some point had a substantially limiting impairment and subsequently healed, the history of injury would qualify as a disability under the “record of” prong.

Finally, the breadth of the “regarded as” provision means it could be particularly useful to NFL players. While “regarded as” may not apply to temporary disabilities,\textsuperscript{256} it would cover instances in which individuals are perceived as having disabilities, regardless of whether they are actually impaired or actually limited in a major life activity.\textsuperscript{257}

For example, Star Lotulelei, discussed above,\textsuperscript{258} was arguably “regarded as” being disabled after an echocardiogram detected a cardiovascular abnormality. A player who experiences a limitation in a major bodily function that might not directly affect his current ability to play, such as a congenital heart problem, diabetes, or cancer, could also qualify as an individual with a disability. For instance, a federal court found that professional golfer Stephen Barron had established a strong likelihood of success on his claim that he was disabled under the ADA based on low testosterone production.\textsuperscript{259} Consequently, the “regarded as” prong might be the most powerful avenue of relief for NFL

\footnotesize{\textsuperscript{252} If the injury is severe enough, he might acquire a permanent impairment.}
\footnotesize{\textsuperscript{254} Following the 2008 amendments, the ADA applies to some temporary impairments. See Summers v. Altarum Inst. Corp., 740 F.3d 325, 333 (4th Cir. 2014) (holding that an accident which left a plaintiff unable to walk for seven months was sufficiently severe to qualify as a disability following the ADAAA expansions).}
\footnotesize{\textsuperscript{255} See Koller v. Riley Riper Hollin & Colagreco, 850 F. Supp. 2d 502, 514 (E.D. Pa. 2012) (holding that the plaintiff failed to establish that his torn ACL, which required surgery, rose to the level of a disability under the statute).}
\footnotesize{\textsuperscript{256} See 42 U.S.C. § 12102(3)(B) (2012) (stating that the regarded as prong “shall not apply to impairments that are transitory and minor” and that “[a] transitory impairment is an impairment with an actual or expected duration of 6 months or less”).}
\footnotesize{\textsuperscript{257} Id. § 12102(3)(A).}
\footnotesize{\textsuperscript{258} Newton, supra note 68.}
\footnotesize{\textsuperscript{259} Barron v. PGA Tour, Inc., 670 F. Supp. 2d 674, 685 (W.D. Tenn. 2009). However, the court ultimately denied his request for a temporary restraining order to require the PGA tour to allow him to compete. Id. at 691.)}
players under the ADA. Even players who are completely free of impairments both past and present may be considered people with disabilities if they can establish that the NFL or the clubs treated them in a discriminatory manner. The regarded as prong may also be the most comfortable fit, as the players themselves loathe portraying themselves as impaired.

Still, it is not sufficient to show that one has a “disability” to proceed with a claim under the ADA’s antidiscrimination provisions.

ii. Qualified

Under Title I of the ADA, a “qualified individual” is “an individual who, with or without reasonable accommodation, can perform the essential functions of the employment position that such individual holds or desires.”\(^{260}\) In determining which job functions are essential, the statute gives deference to the employer.\(^{261}\) EEOC regulations define essential job functions as “the fundamental job duties of the employment position the individual with a disability holds or desires,” not including marginal functions.\(^{262}\) For example, the essential functions of an administrative assistant might include printing, filing, scanning, delivering mail, and moderate lifting.

The regulations go on to indicate that a job function could be “essential” for purposes of the ADA for at least three reasons:

(i) The function may be essential because the reason the position exists is to perform that function;

(ii) The function may be essential because of the limited number of employees available among whom the performance of that job function can be distributed; and/or

(iii) The function may be highly specialized so that the incumbent in the position is hired for his or her expertise or ability to perform the particular function.\(^{263}\)

Hence, whether a job function is essential depends on its importance and not its frequency.

Of course, in addition to establishing a disability, an individual who wishes to pursue an ADA claim must also establish that he is qualified. The “qualified individual” inquiry is especially challenging in the context of professional sports.

\(^{260}\) 42 U.S.C. § 12111(8).

\(^{261}\) See id. (“For the purposes of this subchapter, consideration shall be given to the employer’s judgment as to what functions of a job are essential, and if an employer has prepared a written description before advertising or interviewing applicants for the job, this description shall be considered evidence of the essential functions of the job.”).

\(^{262}\) 29 C.F.R. § 1630.2(n)(1) (2015).

\(^{263}\) Id. § 1630.2(n)(2).
where excellence, not mere competence, is the necessary standard. There is very little guidance or case law on this issue. The applicable regulations allow courts to look to written job descriptions and collective bargaining agreements when assessing which job functions are essential. The standard NFL player contract states that the “Club employs Player as a skilled football player.” It goes on to explain that “Player represents that he has special, exceptional and unique knowledge, skill, ability, and experience as a football player, the loss of which cannot be estimated with any certainty and cannot be fairly or adequately compensated by damages.” Additionally, the contract states,

Player understands that he is competing with other players for a position on Club’s roster within the applicable player limits. If at any time, in the sole judgment of Club, Player’s skill or performance has been unsatisfactory as compared with that of other players competing for positions on Club’s roster, or if Player has engaged in personal conduct reasonably judged by Club to adversely affect or reflect on Club, then Club may terminate this contract.

Thus, according to the standard contract, whether an individual is qualified to play NFL football is a relative—not an absolute—inquiry. Thus, the qualified individual inquiry likely is more of a moving target in the case of an elite athlete than it is in the case of an administrative assistant.

In terms of relevant case law, two cases potentially address how to determine essential job functions of professional athletes. First, in 2006, Roy Tarpley, a former basketball player whom the NBA banned for violating its drug and alcohol policies, filed an ADA claim with the EEOC after the NBA denied his request to reenter the league. The EEOC found reasonable cause that the NBA had violated his rights under the ADA and issued a right to sue letter, placing Tarpley “in an advantaged position, particularly [for] settlement talks.” Tarpley sued the league in a Texas federal court, but the case settled before the court made any substantive rulings. Nevertheless, documents indicate that Tarpley would have argued that the essential job functions of an NBA player include “not only the ability to play NBA

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264 Id. § 1630.2(n)(3).
266 Id. para. 3 (emphasis added).
267 Id. para. 11 (emphasis added).
269 Id. at 420.
270 Id.
basketball, but also the capability of being a role model." Given the language of the standard NFL player contract, there would be a strong argument that the essential functions of being an NFL player include exceptional skills and performance, as well as a behavioral element off of the field akin to being a role model.

The other potentially relevant case, PGA Tour, Inc. v. Martin, is actually a Title III (public accommodations) case, not a Title I (employment) case. Still, the Supreme Court analyzed the essential aspects of golf to determine whether the plaintiff’s request for a modification—that he be allowed to drive a golf cart during play—would “fundamentally alter the nature” of PGA Tour tournaments. In so doing, the Court looked to the “Rules of Golf” that govern both amateur and professional golf, the “Conditions of Competition and Local Rules” that govern the PGA’s professional tournaments, and the “Notices to Competitors” that issued for specific tournaments.

Thus, a court asked to assess whether an individual is qualified to play professional football would likely look to analogous sources like a player’s contract, the CBA, official NFL rules and regulations, and the descriptions of the player’s position from the NFL and its clubs. “Qualified” in these circumstances would necessarily mean performing at an elite, superior level. To be sure, the qualified inquiry for professional athletes is more complex than for traditional jobs. However, NFL clubs’ need to seek out the best available players does not necessarily mean that anyone less than the best must be unqualified per se. If that were true, the qualification standard would be meaningless given that every employer seeks the best available candidate. Again, whether a player is elite is a relative question—not an absolute one. For example, an individual whose level of skill and performance might have been elite in the past may no longer be qualified relative to the current group of players. Thus, NFL players challenging clubs or the league under the ADA may have difficulty establishing both the aspects of play that constitute “essential functions” of professional football and whether they can perform those essential functions with comparative excellence.

271 Id. However, it is questionable whether Tarpley would have been able to meet the first function because he had not played in the NBA for eight years and would have been—if reinstated—the second oldest player in the league. Moreover, he also had a history of serious knee problems. Id. at 420-21.

272 See 532 U.S. 661, 675-76 (2001) (“At issue now, as a threshold matter, is the applicability of Title III [of the ADA] to petitioner’s golf tours . . . .”).

273 Id. at 682 (internal quotation marks omitted). The Court ultimately explained that the use of carts to play golf is not inconsistent with the fundamental characteristic of the game and that the essence of golf is shotmaking. Id. at 683. Additionally, the Court explained that the PGA’s walking requirement for professional tournaments is likewise not an “indispensable feature” of tournament golf since the rule’s purpose is to fatigue players and Martin already tired more easily than his able-bodied opponents Id. at 685, 690.

274 Id. at 666-67.
b. Specific NFL Evaluative Technologies

We now apply these principles of the ADA to the various types of traditional NFL examinations and drills, as well as to the cutting edge evaluative technologies described in Part I.

i. Medical Examinations and Athletic Drills

The ADA prohibits adverse employment actions on the basis of an actual or perceived disability if the employee can still perform his or her essential job functions. If the person can no longer perform those essential job functions, he or she is not qualified and, therefore, cannot sue for discrimination. Thus, if the NFL or a club chooses not to hire, not to renew, or to otherwise disadvantage a player who can perform the essential job functions of playing football on the basis of medical or health-related information, they could be liable for discrimination.

For example, imagine that our hypothetical player, James, has diabetes but can still play at an elite level (i.e., the diagnosis does not affect his performance in any negative way). Pursuant to the ADA, it is unlikely that National Football Scouting could reject him from the Combine—nor could the NFL or the club fail to hire him on the basis of his diabetes—unless it could show some threat to his health and safety or to the health and safety of others. The same would be true for a player with a congenital heart defect, a player with a record of a severely limiting injuries, or a player, like Star Lotulelei, who had been perceived as having an impairment. Thus, for their qualification standards to be lawful, the NFL and the clubs must establish that their selection criteria are both "job-related" and "consistent with business

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275 See 42 U.S.C. § 12102(3)(A) (2012) (noting that the ADA applies to both actual and perceived impairments); id. § 12111(8) (defining a qualified individual under the ADA as one who can still perform the essential functions of the job).


277 See supra text accompanying note 258.

278 In 2015, a somewhat similar situation unfolded with wide receiver Bud Sasser. The St. Louis Rams drafted Sasser in the sixth round of the NFL Draft before learning that he had a heart condition. Since Sasser had not been invited to the Combine, his condition was not discovered until after he was drafted. The Rams’ doctors recommended that Sasser not play while Sasser’s agent declared that another doctor had cleared him. The Rams still signed Sasser to a contract commensurate with his draft position (including a $113,737 signing bonus) even though they were under no such obligation. Nevertheless, the club ultimately terminated the contract, leaving Sasser’s NFL future in doubt. Mike Florio, Agent Says Bud Sasser Has Been Cleared to Play, NBC SPORTS: PROFOOTBALLTALK (June 5, 2015, 7:44 AM), http://profootballtalk.nbcsports.com/2015/06/05/agent-says-bud-sasser-has-been-cleared-to-play/ [http://perma.cc/YFR9-LJZW].
necessity.” Even assuming that the NFL, the club, and National Football Scouting are performing medical examinations and athletic drills in accordance with the ADA’s restrictions on disability-related inquiries and medical exams (e.g., not conducting pre-offer examinations), they must still take care to not engage in illegal discrimination upon receipt of post-offer examination information.

It is worth pausing to emphasize that if a medical examination (post-offer or during employment) or inquiry (at any time) reveals that a person cannot perform the essential job functions of a professional football player, the NFL or the club can refuse to hire him or can terminate him lawfully since he is not “qualified” as required by the statute.

ii. Nongenetic Technologies

Should wearable technology reveal a disability, Title I’s antidiscrimination provision would prevent discrimination on the basis of that disability. That said, if a player’s performance declines so substantially that he can no longer meet the rigorous standards of professional football, he would no longer be qualified to play and would thus be outside the scope of Title I’s protection.280

If the technology only measures performance—without detecting impairment281—the ADA offers no meaningful protection. An adverse employment action based on performance data alone would not constitute discrimination on the basis of disability. To the contrary, it would most likely be justifiable if the performance data indicated that the individual was no longer capable of performing the essential functions of NFL football. Put another way, anything less than peak performance could be taken as an indication of the person’s relative inferiority as a player, making it an acceptable ground for an adverse employment action.

That said, given the often extensive injury history of NFL players, the line between performance data and impairment detection is a murky one. For example, a sensor that measures the amount of force a player creates might typically be construed as a performance metric, but if the player has a history of knee injuries, a reduction in force might be indicative of the player’s level of impairment. Courts will likely struggle to distinguish the two should these issues be litigated.

279 42 U.S.C. § 12112(b)(6).
280 See supra notes 274–75 and accompanying text.
281 See supra subsection II.A.1.b.i. for a discussion of the importance of the difference.
iii. Genetic Tests

The ADA’s antidiscrimination provisions might also apply to genetic tests. Arguably, to discriminate against an individual on the basis of genetic information is to regard that person as disabled. Moreover, recall that being regarded as disabled requires only that an individual face discrimination “because of an actual or perceived physical or mental impairment whether or not the impairment limits or is perceived to limit a major life activity.” Hence, a plaintiff could argue that in addition to discrimination on the basis of genetic information under GINA, he or she also faces discrimination on the basis of a perceived disability.

While the ADA may technically apply to scenarios related to genetic testing and genetic-information discrimination, GINA will likely be the primary legal tool for such circumstances. While GINA does not preempt the ADA—and claimants can and do assert violations of both statutes—it specifically includes genetic test results and excludes the type of manifested conditions that the ADA covers, thereby implying complementary protections.

c. Possible Responses and Defenses

In cases of alleged discrimination, the NFL or a club could use a multitude of defense strategies, such as arguing that the player is not qualified, that an exclusionary qualification standard is job-related and consistent with a business necessity, or that the player poses a direct threat to the health or safety of himself or others. One response to a discrimination claim is to assert that the plaintiff is not a qualified individual with a disability. Thus, the NFL or the club could challenge James regarding how much his alleged impairment currently limits him (substantially limiting impairment), has limited him in the past (record of), or whether he has ever been perceived as being disabled (regarded as). Although the ADAAA’s broader definition of disability makes it harder for employers to establish the absence of a disability, they can still assert that the person cannot perform essential job functions—even with reasonable accommodations—and is therefore not “qualified.” Since elite athletic ability is essential to playing professional football, this defense could be strong for the NFL or the clubs. The NFL or the club might then argue that while James is at an absolute level of excellence with respect to playing football, he still


\[284\] See infra notes 325–36.

\[285\] See supra notes 245–50 and accompanying text.
falls comparatively short compared to other aspiring professional players competing for the position.

Challenging whether an individual is disabled or qualified are responses that cut across the various definitions of discrimination in Title I. Yet, some of the specific constructions of discrimination found in § 12112(b) have their own separate statutory exceptions or defenses. Suppose James has established that he is qualified to play football at the elite level (as well as to conform to the necessary behavioral norms) and also that he is a person with a disability as defined by the ADA. In response to his claim for failing to accommodate a qualified individual with a disability, James’s employer could argue that the requested accommodation is not reasonable, or that even if the requested accommodation were reasonable, it would create an undue hardship. Say James has a learning disability and requests extra time than is normally provided for taking the Wonderlic test at the Combine. James would have to demonstrate that his request for additional time is reasonable; then the NFL or the clubs (through National Football Scouting) could argue his request would impose some kind of unacceptable burden.

The ADA includes specific statutory defenses to allegations that a qualification standard disproportionately screens out individuals with disabilities. Importantly, essential job functions (the touchstone for the qualified individual inquiry) are distinct from qualification standards. As noted, essential job functions are the fundamental duties of the job, while qualification standards are the selection criteria the employer uses to assess whether an individual is qualified. Thus, a person who could perform the essential functions of the job (i.e., is qualified) might be screened out by discriminatory qualification standards.

For example, playing elite football is an essential job function for an NFL player. In

286 42 U.S.C. § 12112(b).
287 See id. § 12111(8) (defining a qualified individual as one who, “with or without reasonable accommodation, can perform the essential functions” of the job (emphasis added)). To demonstrate that an accommodation is reasonable, a plaintiff “need only show that an ‘accommodation’ seems reasonable on its face, i.e., ordinarily or in the run of cases.” US Airways, Inc. v. Barnett, 535 U.S. 391, 401 (2002).
288 Illegal discrimination includes “not making reasonable accommodations” for “an otherwise qualified individual . . . unless [the employer] can demonstrate that the accommodation would impose an undue hardship on the operation of [its] business.” 42 U.S.C. § (b)(5)(A) (emphasis added). An “undue hardship” is “an action requiring significant difficulty or expense.” Id. § 12111(10)(A).
289 Prospective players with learning disabilities have not been given extra time to take the Wonderlic test at the Combine, as would be required by the ADA. See, e.g., Lowell Cohn, NFL Fails to Protect Player with Learning Disability, PRESS DEMOCRAT (Apr. 9, 2012), http://www.pressdemocrat.com/news/2310726-81/nfl-fails-to-protect-player [https://perma.cc/26EY-HK9X] (explaining that Morris Claiborne was not afforded any testing accommodations during his Wonderlic examination despite having a documented learning disability).
290 42 U.S.C. § 12113(a).
291 See supra note 262 and accompanying text.
292 See 42 U.S.C. § 12112 (b)(6) (noting that illegal discrimination includes using qualification standards that “screen out or tend to screen out an individual with a disability”).
screening for the most elite football players, the NFL or its clubs could theoretically adopt a hearing requirement due to a belief that the best football players need to be able to hear one another in a huddle, hear the officials’ whistles, and respond to verbal signals from the coach. While there might be some correlation between hearing and football playing, a hearing requirement could nonetheless screen out qualified players, such as former Seattle Seahawk Derrick Coleman, who is deaf.293

An employer can potentially defend a qualification standard that screens out individuals with disabilities by showing it is (1) job-related, (2) consistent with a business necessity, and (3) that the job cannot be accomplished with reasonable accommodation.294 Thus, the NFL or its clubs can adopt qualification standards that disparately impact people with disabilities as long as those standards relate to the job of playing football, further a legitimate business purpose, and have no viable reasonable accommodation. For example, if James failed a hearing test at the Combine and was not hired as a result of a hearing policy, the club would have to assert that a certain degree of hearing is job-related and consistent with business necessity and that James could not be adequately accommodated, say through hearing aids or by using sign language or some other visual means of communication.295

Additionally, the ADA allows employers to adopt qualification standards that require that “an individual shall not pose a direct threat to the health or safety of other individuals in the workplace.”296 The ADA defines a “direct threat” as “a significant risk to the health or safety of others that cannot be eliminated by reasonable accommodation.”297 According to the Supreme Court, the presence or absence “of a significant risk must be determined from the standpoint of the [discriminator], and the risk assessment must be based on medical or other objective evidence.”298 Thus, employers cannot invent hypothetical risks to invoke the defense.

While, on its face, the statute only provides a defense when employing an individual with a disability that could harm others, the Supreme Court has

293 See Tom Friend, Derrick Coleman Misses Nothing, ESPN (Jan. 31, 2014), http://espn.go.com/nfl/playoffs/2013/story/_/id/10372203/super-bowl-xlviii-deafness-deter-seattle-derrick-coleman [http://perma.cc/PF3Z-75EL] (explaining that Coleman was the third deaf player in NFL history and the first to play offense, which requires more quick and last-minute communication with teammates than defense).
295 The NHL actually excludes players who are blind in one eye. See Bill Littlefield, David-Alexandre Beauregard: One Eye, 20 Years, 540 Goals, ONLY GAME (Dec. 21, 2013), http://onlyagame.wbur.org/2013/12/21/david-alexandre-beauregard-blind-hockey-player [http://perma.cc/TQJ3-5E4F] (discussing the twenty-year career of minor hockey player David-Alexandre Beauregard, who has never reached the NHL, in part due to a league rule prohibiting players who are blind in one eye).
296 42 U.S.C. § 12113(b).
297 Id. § 12113(3).
extended Title I’s direct threat defense to the employees themselves. In other words, employers can screen out individuals with disabilities to avoid putting those individuals at significant risk. In the leading Supreme Court case in this area, *Chevron U.S.A. Inc. v. Echazabal*, the Court held that Chevron could lawfully refuse to hire respondent Echazabal due to a medical exam that revealed liver damage, which Chevron’s doctors believed could be exacerbated by exposure to toxins while working in the refinery. Thus, one possible defense for the NFL and the clubs would be to argue that making decisions based on players’ actual, past, or perceived disabilities would in fact benefit the players themselves by keeping them out of harm’s way.

Imagine that James’s Combine EKG has revealed abnormal heart function, he is forced to leave the Combine, and—as a result—is not ultimately drafted or signed. James could allege discrimination based on an actual or a perceived cardiac impairment. However, the clubs could raise the direct threat defense, arguing that to employ an individual with compromised heart function as a professional football player would place him at a significant health risk and, given the nature of the sport, that the risk cannot be eliminated by a reasonable accommodation. Therefore, the direct threat defense is potentially powerful for these defendants with respect to health-related screenings because they can argue that adopting health-related qualification standards is necessary to avoid putting players at serious risk. But to succeed, they would have to demonstrate that the risk in question is “significant”—based on objective evidence—and that it cannot be eliminated through reasonable accommodation.

Spinal stenosis, a narrowing of the spinal canal, provides another useful hypothetical for the direct threat defense. David Wilson, a running back for the New York Giants, was advised by team doctors to retire based on his spinal stenosis. Ostensibly, the doctors based their advice on the belief that Wilson was endangering himself by continuing to play. However, while they may face greater risk of discomfort and ultimately decide that continuing to play is not worth it, at least one article reports “research shows that players with spinal stenosis are at no greater risk of devastating spinal cord injury.” Nonetheless, many players with that condition are encouraged to stop playing football. While perhaps well-meaning, recommendations to leave professional football because of

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299 See *Chevron U.S.A. Inc. v. Echazabal*, 536 U.S. 73, 76 (2002) (finding that an EEOC regulation “authoriz[ing] [a] refusal to hire an individual because his performance on the job would endanger his own health, owing to a disability,” was permissible under the ADA).

300 *Id.* at 76.


303 *Id.*
spinal stenosis are therefore based on perceived—not actual—risk. Thus, should a club dismiss a player on the basis of spinal stenosis, a direct threat defense would mostly likely fail due to the absence of an actual risk of heightened injury. Thus, the direct threat defense may be available in the context of professional football, but there are limits to its applicability.

3. ADA Summary

Navigating the goals of the ADA and its application to the NFL context is no easy feat, so we summarize it: Title I of the ADA could apply to the clubs or the NFL (1) by prohibiting certain medical examinations or inquiries and (2) by forbidding both intentional and unintentional adverse employment actions on the basis of an actual, past, or perceived disability. The NFL and its clubs could assert a variety of defenses. For example, they could assert that qualification standards or medical inquiries and exams for current employees are job-related and consistent with business necessity. For certain actions, they could challenge whether the individual is qualified or has a disability. Lastly, if a player is endangering himself or others, the club or the NFL may be able to use the direct threat defense.

304 While the NFL and the clubs might have multiple defenses, National Football Scouting's activities are exclusively pre-employment and only related to medical examinations and inquiries, not employment-related actions. See supra notes 43–45, 47–54 and accompanying text. This means that the only statutory exception available to it would be for pre-employment, job-related inquiries.
Table 1: Medical Examinations and Inquiries\textsuperscript{305}

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Types of Screening</th>
<th>Defenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>Pre-employment medical examinations</td>
<td>None</td>
</tr>
<tr>
<td>Applicants</td>
<td>Pre-employment inquiries</td>
<td>Inquiry is job-related</td>
</tr>
<tr>
<td>Applicants (post-offer)</td>
<td>Employee entrance exam</td>
<td>Exams must be (1) universal (all entering employees are subject); (2) confidential; and (3) used only in accordance with ADA</td>
</tr>
<tr>
<td>Current employees</td>
<td>Medical examinations and inquiries</td>
<td>Exams and inquiries must be (1) job-related and (2) consistent with business necessity</td>
</tr>
</tbody>
</table>

Table 2: Discrimination Against Qualified Individuals with Disabilities\textsuperscript{306}

<table>
<thead>
<tr>
<th>Violations</th>
<th>Defenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limit, segregate, or classify on the basis of disability\textsuperscript{311}</td>
<td>• No disability</td>
</tr>
<tr>
<td></td>
<td>• Not qualified</td>
</tr>
<tr>
<td></td>
<td>• Did not discriminate / adversely affect</td>
</tr>
<tr>
<td>Failure to accommodate\textsuperscript{308}</td>
<td>• No disability</td>
</tr>
<tr>
<td></td>
<td>• Not qualified</td>
</tr>
<tr>
<td></td>
<td>• Accommodation not reasonable</td>
</tr>
<tr>
<td></td>
<td>• Undue hardship</td>
</tr>
<tr>
<td>Discriminatory qualification standards\textsuperscript{310}</td>
<td>• No Disability</td>
</tr>
<tr>
<td></td>
<td>• Not Qualified</td>
</tr>
<tr>
<td></td>
<td>• (1) Job-related; (2) consistent with business necessity; and (3) cannot be eliminated with reasonable accommodation\textsuperscript{311}</td>
</tr>
<tr>
<td></td>
<td>• Direct threat\textsuperscript{311}</td>
</tr>
</tbody>
</table>

\textsuperscript{305} The information contained in the table summarizes 42 U.S.C. § 12112(d)(1)–(4) (2012).

\textsuperscript{306} Unless otherwise noted, the statutory support for the defenses included in the table corresponds with the provision describing the violation. These provisions apply to all qualified individuals with disabilities at all stages of employment. 42 U.S.C. § 12112(a).

\textsuperscript{307} Id. § 12112(b)(1).

\textsuperscript{308} Id. § 12112(b)(5).

\textsuperscript{309} Id. § 12112(b)(6).

\textsuperscript{310} Id. § 12113(a).

\textsuperscript{311} Id. § 12113(b).
B. Genetic Information Nondiscrimination Act

Apart from the ADA, the Genetic Information Nondiscrimination Act is another federal statute that could apply to the collection and use of players’ health-related information.

Title II of GINA prohibits both acquiring and acting on genetic information in employment. The law applies to various types of employers covered by other federal statutes such as Title VII, as well as employment agencies, labor organizations, and training programs. The sections most relevant to NFL players are the employer and labor organization provisions. Like the ADA, GINA does not exempt sports-related employers. To the contrary, proponents of the law cited Eddy Curry’s story as evidence of the need for legal regulation. Both GINA’s prohibitions on genetic discrimination and its restrictions on requests for genetic information could apply to efforts of the NFL or its clubs to evaluate and monitor player health. As is the case under the ADA, plaintiffs must exhaust their administrative remedies before pursuing a lawsuit, and they cannot prospectively waive their claims.

The statute adopts a fairly expansive definition of genetic information. GINA defines an individual’s “genetic information” as “information about—(i) such individual’s genetic tests, (ii) the genetic tests of family members of such individual, and (iii) the manifestation of a disease or disorder in family members...
of such individual.”325 The statute focuses exclusively on genetic testing, not other health-related tests. Although the statute does not explicitly state that family medical history constitutes genetic information, the inclusion of manifested conditions of family members has been read to extend the statute to family medical history,326 a rather common type of health-related information.

Regarding the family member provision, the plain language of neither the statute nor the regulations restrict the scope to conditions with specific hereditary components.327 Nonetheless, some courts have read this provision more restrictively, finding that GINA does not cover family medical history lacking a genetic component.328 Regardless, family medical history—and not genetic test results—have been the most frequent basis for GINA claims to date.329

Importantly, while the statute covers the manifested conditions of a person’s relatives, GINA does not cover an individual’s own manifested genetic conditions.330 The law’s primary focus is therefore pre-symptomatic or asymptomatic individuals. The EEOC regulations define the terms “manifestation” or “manifested” to mean “that an individual has been or could reasonably be diagnosed with the disease, disorder, or pathological condition by a health care professional with appropriate training and expertise in the field of medicine involved” and specifies that “a disease, disorder, or pathological

326 Rothstein et al., supra note 196, at 526-27.
327 The EEOC regulations define “family member” to include dependents through marriage—including spouses and stepchildren—and adoption. 29 C.F.R. § 1635.3(a)(1) (2015). Moreover, in issuing its final rule on employer-provided wellness programs, the EEOC clarified that a spouse “is a ‘family member’ under GINA.” Genetic Information Nondiscrimination Act, 81 Fed. Reg. 31,143, 31,144 (May 17, 2016) (quoting 42 U.S.C. 2000ff(4)(a)(iii)). The regulations themselves explain that “[a] program is not reasonably designed to promote health or prevent disease if it imposes a penalty or disadvantage on an individual because a spouse’s manifestation of disease or disorder prevents or inhibits the spouse from participating or from achieving a certain health outcome,” which indicates that a spouse’s manifested condition qualifies as genetic information. 29 C.F.R. §1635.8(b)(2)(i)(A) (2016). The inclusion of stepchildren, adopted children, and spouses in the definition of family member indicates that the EEOC understands GINA’s family member disease manifestation prong to encompass more than just hereditary risk.
328 See, e.g., Poore v. Peterbilt of Bristol, L.L.C., 852 F. Supp. 2d 727, 731 (W.D. Va. 2012) ("[T]he fact that an individual family member merely has been diagnosed with a disease or disorder is not considered 'genetic information' if 'such information is taken into account only with respect to the individual in which such disease or disorder occurs and not as genetic information with respect to any other individual” (quoting H.R. Rep. No. 110-28, pt. 2, at 27 (2007))); see also Maxwell v. Verde Valley Ambulance Co., No. CV-13-08044-PCT-BSB, 2014 WL 4470512, at *16 (D. Ariz. Sept. 11, 2014) (citing Poore for that proposition); Allen v. Verizon Wireless, No. 3:12-cv-482(JCH), 2013 WL 2467923, at *23 (D. Conn. June 6, 2013) (also citing Poore for that proposition).
329 Rothstein et al., supra note 196, at 553-54.
condition is not manifested if the diagnosis is based principally on genetic information. Yet even with this clarification, ambiguities remain. While seemingly logical to Congress, drawing the line at manifestation is far more challenging in practice. Consider symptomatic individuals who go on diagnostic odysseys searching for answers and finally discover an atypical genetic variation that could be responsible. Those people have “manifested” the condition in the sense that it caused impairment, but healthcare professionals were unable to provide answers without genetic testing.

Marfan syndrome, the disease that likely ended Isaiah Austin’s professional basketball career, provides a useful example. Physicians with experience in connective tissue disorders can diagnose that condition with a physical exam, but genetic testing can be helpful in some cases. How much protection would GINA offer? Individuals with Marfan syndrome are already experiencing the deleterious effects of the disease; in that sense, it is manifested. However, in certain circumstances, doctors may be unable to confirm the exact diagnosis without the aid of genetic technology. In that case, is the diagnosis “based principally on genetic information,” meaning that it is not manifested as defined by that statute? Or can Marfan syndrome always be reasonably diagnosed by other means, meaning the condition has manifested? These questions will remain unanswered until the courts weigh in on these kinds of cases.

Furthermore, the statute expressly allows covered entities to acquire, use, and disclose medical information that is not genetic. It specifies that covered entities do not violate the statute by “the use, acquisition, or disclosure of medical information that is not genetic information about a manifested disease, disorder, or pathological condition of an employee or member, including a manifested disease, disorder, or pathological condition that has or may have a genetic basis.” Of course, any acquisition, use, or disclosure of nongenetic information would have to be in accordance with other governing statutes, such as the ADA and perhaps the Health Insurance Portability and Accountability Act (HIPAA).

Genetic information, as defined by the statute, is of potential interest to the NFL and its clubs. First, basic medical examinations, such as preseason physicals, involve collecting information about family medical history.

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331 29 C.F.R. § 1635.3(g) (2015).
332 See supra note 148 and accompanying text.
334 29 C.F.R. § 1635.3(g).
337 See infra note 357 and accompanying text.
which implicates an individual's genetic information. Additionally, while the NFL and its clubs seemingly have not used genetic testing as aggressively as the NBA,338 they could at some point adopt such tests to screen players for genetic risk. As discussed in Part I, genetic tests purporting to evaluate athletic potential are already on the market and could also be of interest to the NFL and its clubs.339

GINA includes both privacy and antidiscrimination protections. Unlike the ADA, GINA does not have specific statutory defenses for safety and job-relatedness. Still, it does include a number of provisions related to the valid acquisition of genetic information.340

1. Privacy

This subsection outlines GINA's privacy protections, applies them to professional football, and explores the possible exceptions or responses to a claim for the unlawful acquisition of genetic information.

a. Claims

GINA contains protections for privacy and confidentiality. Title II's privacy protection prohibits employers from "request[ing], requir[ing], or purchas[ing] genetic information with respect to an employee or a family member," regardless of whether the employer actually acquires the information.341 The accompanying EEOC regulations further explain that there is no exception for medical examinations related to employment:

The prohibition on acquisition of genetic information, including family medical history, applies to medical examinations related to employment. A covered entity must tell health care providers not to collect genetic information, including family medical history, as part of a medical examination intended to determine the ability to perform a job, and must take additional reasonable measures within its control if it learns that genetic information is being requested or required. Such reasonable measures may depend on the facts and circumstances under which a request for genetic information was made,

338 See, e.g., Adi Joseph, Isaiah Austin, NBA Draft Prospect, Has Career-Ending Genetic Disorder, USA TODAY (June 22, 2014, 3:03 PM), www.usatoday.com/story/sports/nba/draft/2014/06/22/isaiah-austin-genetic-disorder-marfan-syndrome-baylor-bears/11236699/ [https://perma.cc/E74Z-UABT] (explaining how the discovery of Isaiah Austin’s Marfan syndrome following pre-draft genetic testing ended his basketball career); Rice, supra note 144 (explaining that the Bulls refused to re-sign Eddy Curry until he received a genetic test to determine whether he had a heart condition).

339 See supra subsection I.B.3.

340 See 42 U.S.C. § 2000ff-7(d) (laying out exceptions to the prohibition on employers requesting, requiring, or purchasing genetic information).

341 Id.
and may include no longer using the services of a health care professional who continues to request or require genetic information during medical examinations after being informed not to do so.\textsuperscript{342}

Thus, even the employment-related inquiries and examinations that are lawful under the ADA would violate GINA if they involved requests for genetic testing or family medical history.

GINA’s privacy provision is unique.\textsuperscript{343} Other federal employment discrimination statutes contain no comparable language; in fact, the closest parallel is the ADA’s medical inquiry and examination provisions,\textsuperscript{344} discussed above.\textsuperscript{345} However, GINA’s enforcement and remedy provisions mirror those of Title VII.\textsuperscript{346} Thus, while claimants can recover for pure privacy violations without associated adverse employment actions, the remedies available in such cases will remain unclear until the case law is more established.\textsuperscript{347}

GINA also includes a stand-alone confidentiality provision, separate from its antidiscrimination sections. It provides that if a defendant possesses “genetic information about an employee . . . , such information shall be maintained on separate forms and in separate medical files and be treated as a confidential medical record of the employee or member.”\textsuperscript{348} GINA further provides that an employer “shall be considered to be in compliance with” the Act by treating the relevant genetic information “as a confidential medical record under section 12112(d)(3)(B) of [42 U.S.C.].”\textsuperscript{349}

\textsuperscript{342} 29 C.F.R. § 1635.8(d) (2015) (emphasis added).
\textsuperscript{343} See Jessica L. Roberts, Protecting Privacy to Prevent Discrimination, 56 WM. & MARY L. REV. 2097, 2130-31 (2015) (describing GINA as “atypical” given its ban on requesting, requiring or purchasing genetic information and distinguishing it from “the vast majority of federal [antidiscrimination] law” that merely prohibits adverse employment actions on the basis of the protected trait without “prohibit[ing] employers from seeking—or even disclosing—information related to [the trait].”).
\textsuperscript{344} See id. at 2131 (“The statute provides that, pre-employment, . . . ‘a covered entity shall not conduct a medical examination or make inquiries of a job applicant as to whether such applicant is an individual with a disability or as to the nature or severity of such disability.’” (quoting 42 U.S.C. 12112(d)(2)(A))).
\textsuperscript{345} See supra subsection II.A.1.
\textsuperscript{347} One, if not the first, of these cases resulted in a very generous award to the plaintiffs. See Lowe v. Atlas Logistics Grp. Retail Servs. (Atlanta), LLC, 102 F. Supp. 3d 1360, 1362-63, 1370 (N.D. Ga. 2015) (finding that defendant warehouse operator violated GINA by requiring employees to provide genetic information as part of its attempt meant to identify which employees had been defecating in the warehouse, even though plaintiff employees were not deemed a match and no adverse employment action was ultimately taken); Gina Kolata, Georgia: 52.2 Million Penalty for Illegal DNA Testing, N.Y. TIMES (June 22, 2015), http://www.nytimes.com/2015/06/23/us/georgia-dollar2-2-million-penalty-for-illegal-dna-testing.html [https://perma.cc/PE5M-HS55] (reporting that the jury in Lowe awarded $2,225,000 to the plaintiffs).
\textsuperscript{349} Id.
The statute states that covered entities cannot disclose an individual's genetic information except to the individual himself—or the family member who is the receiving genetic services—with the individual's written request; a researcher doing lawful research; government officials for compliance purposes; a public health agency if it relates to a deadly contagious disease or life-threatening illness; or to respond to a court order or comply with the relevant family medical leave laws.\textsuperscript{350} In many respects, the allowable disclosures mirror the privacy section's exceptions governing acceptable requests for and acquisitions of genetic information.

GINA also complicates occupational medical recordkeeping. Recall that after a conditional offer of employment, the ADA permits employers to request access to an individual's full medical records.\textsuperscript{351} However, under GINA, employers must exclude genetic information from those requests.\textsuperscript{352} While this requirement may, at first blush, seem relatively straightforward, it is far more complex. Given the broad definition of genetic information and its potential to appear throughout an individual's health records, Professor Mark Rothstein deems it “practically impossible for custodians of health records to comply with GINA's disclosure limitations.”\textsuperscript{353} Thus, even employers that make their best efforts to comply with both the ADA and GINA may still violate GINA's privacy provisions.

b. Specific NFL Evaluative Technologies

While more limited in its application than the ADA since it concerns only genetic information, GINA is nonetheless relevant to a number of the evaluating technologies that the NFL or its clubs could use to evaluate the health of both current and aspiring players.

i. Medical Examinations and Athletic Drills

Routine physical exams or medical questions could trigger GINA's Title II protections to the extent they entail asking players to provide family medical history, which constitutes an unlawful request for genetic information.\textsuperscript{354} The extent of liability will depend on the specific circumstances, how broadly the courts construe the scope of protected family medical history (i.e., whether it is limited to information about genetic risk), and the scope of the applicable exceptions.

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{350} Id. § 2000ff-5(b).
\item \textsuperscript{351} See Rothstein, supra note 186, at 44.
\item \textsuperscript{352} Id.
\item \textsuperscript{353} Id.
\item \textsuperscript{354} See 29 C.F.R. § 1635.8(d) (2015) (noting that GINA's prohibition on the acquisition of genetic information includes family medical history).
\end{itemize}
\end{footnotesize}
To illustrate how the existing practices may be unlawful, consider the following passage from a 2001 book describing the medical treatment and evaluation of NFL players: “It says here that you have a family history of heart trouble.” “Well yeah, that’s right . . . in my family.” “Well, what exactly kind of heart trouble is that? A heart murmur?” “No, sir.” “Some congenital condition?”

While such questions may have been lawful when the book was published in 2001 (assuming those inquiries are job-related pursuant to the ADA), they would clearly violate GINA today. Again, it is important to emphasize that the law prevents physicians from asking prospective and current players about family medical history, regardless of whether such questions relate to the player’s ability to play football. Thus, the NFLPA, the NFL, the clubs, and likely National Football Scouting as well are prohibited from asking players to provide family medical history. In contrast, the Standard Minimum Preseason Physical Examination, as outlined in the CBA, expressly includes the collection of family medical history as part of the general medical examination. By requiring players to provide genetic information in the form of family medical history, the CBA would seem to violate GINA.

As with medical examinations under the ADA, individuals cannot prospectively waive their legal rights under GINA. Hence, the fact that the NFLPA agreed to a standard physical that involves requests for family medical history does not insulate the NFL or its clubs from potential liability. Similarly, the fact that the NFLPA has made such an agreement could itself give rise to a GINA Title II claim against the NFLPA. With respect to other employment discrimination statutes, such as Title VII, courts have held that unions cannot collectively bargain to violate the law. Thus, insofar as the NFLPA collectively bargained to violate GINA, albeit inadvertently, the union may be found to have violated Title II.

While traditional medical examinations or physicals might trigger GINA as requests for family medical history, the statute would not apply to athletic drills. Since those metrics generally measure individual performance, they do not deal with genetic testing or family medical history and therefore do not constitute requests for genetic information. We discuss below how GINA would apply to

356 See supra note 342 and accompanying text.
357 Collective Bargaining Agreement, supra note 32, app. K.
358 See supra note 342.
360 See 42 U.S.C. § 2000ff-3(c) (2012) (prohibiting labor organizations from requesting or requiring genetic information with respect to a member).
circumstances in which National Football Scouting, the NFL, or its clubs choose to adopt genetic tests in conjunction with medical exams or physicals.\textsuperscript{361}

ii. Nongenetic Technologies

Given the very specific definitions of “genetic information” and “genetic test,”\textsuperscript{362} GINA would most likely not apply to the wearable technologies described in Part I.\textsuperscript{363} While genetic material can be obtained in a number of different ways—such as through buccal swabs, blood, semen, and other bodily materials and tissues—collecting and analyzing data relating to speed, agility, impact, sleep patterns, and heart rate does not involve DNA, RNA, chromosomes, proteins, or metabolites and would not independently reveal information about the content of an individual's genotype. Thus, the innovative, nongenetic technologies described in Part I are squarely outside the scope of GINA's protections. James would be unable to challenge them under GINA.

iii. Genetic Tests

If National Football Scouting, the clubs, or the NFL develop a further interest in genetic information (i.e., for injury prevention or enhancement through target training), assuming no exception applies, GINA \textit{prevents those organizations from requesting or requiring players to take genetic tests}, even if the tests would reveal information related to playing elite football.\textsuperscript{364} Thus, requesting that James provide his family medical history or take a genetic test would violate GINA on its face.

Although GINA does allow occupational monitoring, it does so only with respect to toxic substances.\textsuperscript{365} Additionally, the wellness program exception, detailed below,\textsuperscript{366} is also unlikely to apply. Thus, even if protecting players from future injury were the sole purpose, National Football Scouting, the NFL, or its clubs may not be able to mandate genetic testing, regardless of the possible benefits to player health. Furthermore, even if National Football Scouting, the NFL, or a club lawfully obtained genetic information through

\textsuperscript{361} \textit{See infra} subsection II.B.1.b.iii.

\textsuperscript{362} \textit{See supra} subsection I.B.2.

\textsuperscript{363} \textit{See infra} subsection II.B.1.b.iii.

\textsuperscript{364} \textit{See 29} C.F.R. \textsection 1635.8(d) (2015) (explaining that GINA does not contain an exception for examinations related to employment).

\textsuperscript{365} \textit{See supra} subsection I.B.2.

\textsuperscript{366} \textit{See infra} note 375 and accompanying text.
an expansive reading of the exceptions, the statute’s antidiscrimination provisions still forbid acting on that knowledge.

c. Possible Responses and Defenses

GINA’s privacy protection is particularly salient with respect to the interests of both the NFL and its clubs in player health. This point is worth emphasizing: the clubs and the NFL could violate GINA simply by requesting genetic information, including family medical history. Unlike the ADA, under GINA’s outright prohibition, even job-related genetic tests that serve a legitimate business purpose are unacceptable. Thus, even genetic testing that comports with the ADA would still violate GINA. Similarly, the labor organization and training program provisions include prohibitions on requesting, requiring, or purchasing the genetic information of an employee or her family member. However, GINA does include some possible exceptions and defenses that merit discussion.

Let us again return to James at the Combine and the example of him providing his family medical history, submitting to an EKG, performing a running drill, swallowing a sensory pill, and taking a genetic test. The first potential line of defense against a GINA claim would likely be that the information does not meet the statute’s definition of “genetic information” such that James cannot challenge the EKG, the running drill, or the pill under GINA. But genetic testing quite clearly implicates genetic information. In the context of family medical history, the clubs and the NFL could use recent case law to assert that the requested family medical history is not genetic information because it does not demonstrate genetic risk per se. James could, of course, respond by arguing that a plain reading of the statute and the regulations support the contrary, or by attempting to establish that the requested family medical history does in fact implicate genetic risk.

Regarding requesting, requiring, or purchasing genetic information, the clubs and the NFL could argue that their actions fall within one of the statute’s several exceptions. A covered entity does not violate GINA in the following six circumstances: (1) when the employer inadvertently requests or requires the family medical history of an employee or an employee’s family member; (2) when the employer offers health or genetic services—such as in the context of a wellness program—and participation is voluntary and any individually identifiable genetic information is only disclosed to the

367 See supra note 342 and accompanying text.
369 See id. § 2000ff(4)(A)(i) (listing an individual’s genetic tests as part of the definition of “genetic information”).
370 See supra note 328 and accompanying text.
371 See supra note 327 and accompanying text for examples of arguments that he could make.
employer in the aggregate; (3) when the employer requests family medical history to comply with family and medical leave laws; (4) when the employer purchases commercially and publicly available documents (i.e., newspapers but not medical databases or court records) that include family medical history; (5) when the employer requests the information for genetic monitoring of toxic substances in the workplace and follows the appropriate procedures for such monitoring; and finally, (6) when the employer conducts DNA analysis for law enforcement purposes or to identify human remains and requires employee genetic information for quality control reasons.\textsuperscript{372} None of these exceptions clearly apply to the NFL or the clubs in the contexts discussed herein. The statute further provides that the use of any genetic information acquired lawfully under one of these exceptions is still governed by GINA’s antidiscrimination and confidentiality provisions.\textsuperscript{373}

Of GINA’s six exceptions, the wellness program exception has the greatest potential applicability. Like the ADA,\textsuperscript{374} GINA allows employers to obtain health-related information when providing voluntary health services. The statute sets out a number of criteria for lawfully acquiring genetic information.\textsuperscript{375} While this exception arguably seems primarily geared toward the kinds of wellness programs encouraged by the Affordable Care Act,\textsuperscript{376} the language of the statute might be read to indicate that if an employer provides medical services, it can ask for genetic information. Yet for several reasons, the clubs and the NFL are unlikely to be able to use this exception. This exception targets wellness programs, not the occupational kind of medicine—medical examinations done for the benefit of the employer—that is provided at the Combine and by the NFL and its clubs. Moreover, the exception requires “prior, knowing, voluntary, and written authorization.”\textsuperscript{377} Recall that in addition to the broad authorizations signed before participating in the Combine,\textsuperscript{378} a player, upon joining a club, is required by his contract and the CBA to make various health-related disclosures.\textsuperscript{379} Failing to make those disclosures is grounds for termination and

\textsuperscript{372} 42 U.S.C. § 2000ff-1(b)(1)–(6).
\textsuperscript{373} Id. § 2000ff-1(c).
\textsuperscript{374} Id. § 12112(d)(4)(B).
\textsuperscript{375} See id. § 2000ff-1(b)(2) (conditioning the wellness program exception upon the individual’s consent; the information being limited to the individual, her family, and the healthcare professional; and the information being provided to the employer only in aggregate terms).
\textsuperscript{378} See supra note 62 and accompanying text.
\textsuperscript{379} See supra notes 233–34 and accompanying text.
could undermine a player’s injury grievance. Far from voluntary disclosure, these requirements contractually obligate a player to disclose and seem to directly conflict with GINA’s prohibition on requesting or requiring genetic information. Further, the exception provides that only the individual or an authorized family member and the healthcare professional can receive individually identifiable genetic information. The employer can only receive that information in the aggregate, and the regulations imply that an employer that seeks to disaggregate employee genetic information violates GINA. In sum, James would have strong GINA claims for the requests for family medical history and genetic testing, and the clubs and the NFL would have little means to counter those claims.

As noted, individuals cannot prospectively waive their GINA claims by consenting to discrimination. But, the aforementioned exceptions to GINA’s privacy provision could nonetheless allow the lawful disclosure of genetic information. Of course, even if the NFL or its clubs could lawfully obtain genetic information as part of health or genetic services that it offers, Title II’s antidiscrimination provision would still restrict the ability to act on that information.

While the above arguments could potentially shield an employer from liability under GINA, the employer would face the additional obstacle of justifying its actions in accordance with the ADA.

2. Discrimination

GINA’s antidiscrimination provision forbids employers from taking adverse employment actions on the basis of genetic information. Specifically, it makes it unlawful for an employer

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380 See supra note 237 and accompanying text.
382 See 29 C.F.R. § 1635.8(b)(2)(i)(D) (2015) (“Any individually identifiable genetic information . . . is not disclosed to the covered entity except in aggregate terms that do not disclose the identity of specific individuals . . . .”).
383 See id. (“[A] covered entity will not violate the requirement that it receive information only in aggregate terms if it receives information that, for reasons outside [its control], makes the genetic information of a particular individual readily identifiable with no effort on the covered entity’s part . . . .” (emphasis added)).
384 See supra note 324.
385 While no court has yet addressed whether GINA covers mixed-motive claims, some scholars speculate that genetic information must be the “but-for” cause of the discrimination. See, e.g., Brian S. Clarke, Grisly Restricted Pleading: Twombly/Iqbal, Gross, and Cannibalistic Facts in Compound Employment Discrimination Claims, 2010 UTAH L. REV. 1101, 1125-26 (2010) (arguing that GINA should be interpreted as requiring a showing of but-for causation since it prohibits discrimination “because of” genetic information (emphasis in original) (internal quotation marks omitted) (quoting 42 U.S.C. § 2000ff-1(a))).
to fail or refuse to hire, or to discharge, any employee, or otherwise to discriminate against any employee with respect to the compensation, terms, conditions, or privileges of employment of the employee, because of genetic information with respect to the employee; or

(2) to limit, segregate, or classify the employees of the employer in any way that would deprive or tend to deprive any employee of employment opportunities or otherwise adversely affect the status of the employee as an employee, because of genetic information with respect to the employee.

Unlike the ADA, GINA does not cover disparate impact (i.e., facially neutral policies that disproportionately exclude individuals on the basis of their genetic information). GINA does, however, include an anticlassification provision, which could limit both negative and positive differential treatment. For example, if a club or the NFL decides to dictate which positions individuals play based in part on their genetic information, the players could arguably challenge the policy as an unlawful classification. Thus, if a defendant differentiates between current or prospective players on the basis of genetic tests results or family medical history, that entity would run afoul of the statute, even if the genetic information in question speaks to the individual’s ability to play professional football. Additionally, GINA prevents labor organizations from discriminating on the basis of genetic information. It forbids them from “caus[ing] or attempt[ing] to cause an employer to discriminate against a member in violation of [the Act].” GINA also prohibits discrimination and classification in the context of training programs.

a. Specific NFL Evaluative Technologies

Given this background on GINA’s antidiscrimination provisions, we now turn to how those protections would apply to the use of evaluative technologies in professional football.

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387 See id. § 12112(b)(6) (prohibiting employers from adopting qualification standards that “tend to” screen out individuals with disabilities).
388 See id. § 2000ff-7(a) (clarifying that “disparate impact . . . on the basis of genetic information does not establish a cause of action under this Act”).
390 See Bradley A. Areheart, GINA, Privacy, and Antisubordination, 46 GA. L. REV. 705, 709-10 (2012) (“GINA . . . does not allow the strategic consideration of genetic information to counter future genetic subordination . . . . Nor does the statute allow any positive consideration of genetic information through programs like genetic diversity initiatives.”).
392 Id. § 2000ff-3(a)(3).
393 Id. § 2000ff-4.
i. Medical Examinations and Athletic Drills

GINA’s antidiscrimination provision prevents any adverse employment actions on the basis of genetic information, even when the information is lawfully obtained. Hence, even if the NFL or the clubs could legally obtain family medical history or genetic test results, they still could not act on that knowledge. James would therefore be able to challenge any job-related decision based on his genetic information, such as whether to hire him, whether to terminate him, or where to play him. Moreover, the NFL and the clubs have fewer legal responses at their disposal for GINA claims because the statute lacks the job-relatedness and direct threat defenses of the ADA. As with violations of genetic privacy, GINA would not prohibit adverse employment actions based on information obtained through athletic drills, leaving James without actionable GINA claims related to those evaluations.

ii. Nongenetic Technologies

Turning now to the nongenetic technologies from Part I, physiological data, even insofar as it might reveal a genetic defect, would not be considered genetic information because the condition would already have manifested. For example, imagine that BioForce’s heart rate monitoring technology over time revealed an athlete’s genetic heart condition. While the heart condition might have been caused by a genetic variation, it would have already manifested in the particular athlete in order to be detected by the technology. Thus, while the condition might constitute an actual or perceived disability pursuant to the ADA, it would fall outside of GINA’s definition of genetic information. GINA therefore offers little protection with respect to wearable technologies. James’s best strategy would be to argue that these evaluations were medical examinations under the ADA.

iii. Genetic Tests

As already discussed, genetic test results unequivocally constitute genetic information. Thus, any employment-related decision by the NFL or one of its clubs based on the results of genetic tests would be challengeable pursuant to GINA.

b. Possible Responses and Defenses

Should James allege that he suffered an adverse employment action on the basis of genetic information, such as being dismissed from the Combine or not being hired as a player, the club or the NFL could argue that the
information they used was not genetic or that the action they took did not rise to the level of an adverse employment action. As mentioned, data from traditional medical examinations, athletic drills, or wearable technologies are outside the scope of GINA. With respect to what constitutes an adverse employment action, say a club wanted to use James's lawfully obtained genetic information to construct a training and eating plan designed to maximize his potential. If James challenged the plan as an unlawful classification, the club could respond that the specialized training and eating plan does not adversely affect his status as an employee.

Significantly, GINA does not restrict its coverage to qualified individuals, unlike the ADA's employment discrimination protections that only apply to individuals who can perform the essential functions of the job despite having a disability. Thus, GINA litigants can avoid the potential issue of establishing which aspects of NFL football constitute essential functions and whether they can perform those functions with comparative excellence.

GINA also does not include statutory defenses designed to ensure safety or efficiency. Title II has no equivalent to the ADA's direct threat or job-related / business necessity defenses. It likewise does not include a bona fide occupational qualification (BFOQ) defense found in statutes like Title VII of the Civil Rights Act. Thus, even if genetic information relates to an individual's ability to safely perform a particular job, at present, a covered entity cannot use that fact to defend a decision to act on that person's genetic information.

395 See 42 U.S.C. § 12111(8) (defining a qualified individual under the ADA as one who "can perform the essential functions" of the job).

396 Wagner, supra note 170, at 92 & n.72. While our focus is on NFL players, it is worth noting that GINA potentially poses unique challenges with respect to the practice of occupational medicine. Occupational physicians providing care to players (rather than exams only) would likely request family medical history and possibly genetic testing and act on the information to improve player care. However, GINA prevents them from doing so, even when the genetic information could speak to the employee's health and safety. Not surprisingly, then, the American College of Occupational and Environmental Medicine (ACOEM) has expressed concern that GINA could place occupational physicians in ethical quandaries. In a position statement on genetic screening in the workplace, it explained,

It seems reasonable to expect that, in the future, some forms of genetic testing will provide a basis for more effective methods to ensure the health of individual workers, but that preventive actions taken on the basis of such testing might violate GINA. In such situations, both acting on the basis of genetic information to better protect the worker and not acting on that information, and thereby failing to protect the worker, would violate standards of ethical conduct. ACOEM hopes that such potential conflicts can be preemptively resolved without recourse to litigation and the federal court system.

3. GINA Summary

To summarize, Title II of GINA has two relevant kinds of protections: privacy and antidiscrimination. From the perspective of litigating these claims, NFL players would probably enjoy more success under GINA because, unlike the ADA, it lacks both a qualification requirement and job-relatedness and direct threat defenses. At the same time, GINA’s coverage of genetic information is far narrower than the ADA’s coverage of current, past, and perceived disabilities, so instances of genetic-information discrimination would likely be less frequent. For example, GINA would only apply to two of the hypothetical evaluations James was asked to agree to—providing family medical history and taking a genetic test—but he could argue that the ADA should cover most, if not all of them, including submitting to an EKG, performing a running drill, and swallowing a sensory pill. The applicability of and possible defenses under GINA are summarized in Table 3.

Table 3: Genetic-Information Protection

<table>
<thead>
<tr>
<th>Coverage</th>
<th>Protections</th>
<th>Defenses</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Genetic test results</td>
<td>Protection against discrimination</td>
<td>Not genetic information</td>
</tr>
<tr>
<td>(2) Genetic test results of family members</td>
<td></td>
<td>Did not discriminate / adversely affect</td>
</tr>
<tr>
<td>(3) Manifested disease or disorder in family members (i.e., family medical history)</td>
<td>Protection of privacy</td>
<td>Not genetic information</td>
</tr>
</tbody>
</table>
| | | Statutory exceptions

Current law appears to limit the ability of the NFL, its clubs, and National Football Scouting to obtain and act on information related to player health. Both the ADA and GINA include limitations on acquiring and using knowledge that relates to either disability or genetic information, respectively. With regard to acquisition, the ADA’s medical examination and inquiry provisions and GINA’s ban on requesting, requiring or purchasing genetic information, limit the ability of the NFL and its clubs to seek information, even if it could speak to an individual’s ability to play football. Both

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398 Id. § 2000ff-1(a)–(b).
399 Id. § 2000ff-1(b)(1)–(6).
statutes allow applicants and employees to volunteer health-related information under certain circumstances. However, prospective and current players, as well as the NFLPA, cannot simply waive all of the relevant protections. With regard to discriminatory actions, the ADA contains some health- and safety-related exceptions that the NFL or the clubs could use to obtain pertinent information and to act on it in the name of health and safety. GINA, by contrast, contains fewer exceptions and defenses. Thus, the NFL and its clubs should consider whether their actions and policies violate one or both of these federal employment discrimination statutes.

III. GOING FORWARD

When we began working on this project, we imagined its chief import would be to help determine which, if any, of the new types of wearable technologies and genetic testing that are being considered or currently used in the NFL (among other professional sports leagues) violate existing laws, in particular GINA and the ADA. This concern remains an important part of the project, but we were surprised in our research: first on the way in which the testing of professional sports players violates or accords with these laws and second, to learn that even more basic and “lower tech” testing mechanisms that have been in place for a long time in the NFL may be problematic. For that reason, our recommendations going forward pertain both to the new technologies as well as their predecessors still in place.

Admittedly, antidiscrimination claims—a category that includes those alleged under the ADA or GINA—are notoriously hard to win and frequently do not make it past summary judgment.\footnote{See Denny Chin, Summary Judgment in Employment Discrimination Cases: A Judge’s Perspective, 57 N.Y. L. SCH. L. REV. 671, 673 (2012–2013) (“Summary judgment [in favor of defendants] was granted, in whole or in part, in employment discrimination cases approximately seventy-seven percent of the time . . . .”).} Moreover, the ADA may well be especially pro-defendant.\footnote{See Sharona Hoffman, Settling the Matter: Does Title I of the ADA Work?, 59 ALA. L. REV. 305, 308 (2008) (“Numerous studies have confirmed that plaintiffs experience extremely low win rates in cases decided under Title I of the ADA.”).} We have no reason to believe that professional athletes would fare any better than other litigants. We do however think litigation by players is special because even if it proves ultimately unsuccessful, filing a case against very public entities like the NFL and its clubs—with attendant media coverage—may be more likely to cause policy change than a typical employment discrimination lawsuit. Moreover, regardless of an individual’s ability to prevail in court, we believe all employers—including the NFL and its clubs—should comply fully with the current law. To that end, our recommendations center around four “C”s: compliance, clarity, circumvention, and changes to existing statutory schemes as
applied to the NFL (and perhaps other professional sports leagues). In making all
of these recommendations, we believe our suggestions to be the best solutions to
the problems we have identified, but we also recognize that the current state of
politics makes implementing some of our proposals challenging. Thus, it is not our
goal to provide definitive solutions to the issues identified throughout the Article
but to begin a conversation that we hope will benefit NFL players and perhaps also
the rest of the working population.

A. Compliance

The first upshot of our analysis is that it appears that some of the existing
testing of NFL players, both at the Combine and once drafted and playing
for a club, seem to violate existing federal employment discrimination laws.
Specifically,

(1) the medical examinations at the Combine potentially violate the ADA's
prohibitions on pre-employment medical exams;

(2) post-offer medical examinations that are made public potentially violate
the ADA's confidentiality provisions;

(3) post-offer medical examinations that reveal a disability and result in
discrimination—e.g., the rescission of a contract offer—potentially violate
the ADA provided the player can still perform the essential job functions;

(4) Combine medical examinations that include a request for a player's
family medical history potentially violate GINA; and

(5) the preseason physical's requirement that a player disclose his family
medical history potentially violates GINA.

While we discuss the possibility of an exemption for professional sports
below, the ADA and GINA currently apply to professional football. Accordingly, the NFL, its clubs, and National Football Scouting should not
wait for lawsuits alleging violations but should instead proactively work to
bring themselves in compliance with the law. In particular, we believe it is
essential for the NFL, the clubs, and National Football Scouting to ensure
they comply with the statutes’ confidentiality requirements so that current
and prospective players do not have private health information about
themselves and their families released to the press. We also believe it is
important to amend the CBA to no longer require players to disclose their
family medical history as part of physicals.

402 See infra subsection III.D.1.
B. Clarity

Beyond this set of practices that seem to contravene the ADA and GINA, there is another set of practices for which there is ambiguity in the application of the existing legislative and regulatory standards, with many issues left untested by litigation. It would therefore be useful for the EEOC or even Congress to weigh in on several different legal issues. Additionally, the NFL itself could issue official statements explaining its position on how to best resolve these ambiguities.

As noted in the Compliance section, the legality of the various employment-related medical examinations is our primary concern. Many of the evaluations performed at the Combine appear to be exactly the kind that the ADA (and possibly GINA) prohibit. Similar open questions relate to the defenses available to employers for post-offer (employee entrance) examinations, done by the clubs themselves after a player has been drafted. Recall that employers can conduct post-offer exams as long as they are universal, confidential, and the results are used in accordance with the ADA. Thus, insofar as the clubs target particular players for additional medical screening, or release the results of the examinations to the press, they are not complying with the ADA. But certain ambiguities render these judgments difficult. We therefore invite the various stakeholders to offer clarification with respect to professional football as employment, the independence of National Football Scouting, the scope of ADA-covered medical examinations, and the scope of GINA’s definition of family medical history.

1. Job-Relatedness and Qualified Individual

Playing for the NFL is not a typical job. Hence, the meaning of legal terms that are intuitive or self-evident in most employment claims becomes stubbornly difficult to define in the context of professional football. Two such examples are essential job functions and what it means for a particular inquiry or qualification standard to be job-related or consistent with business necessity.

Recall that the ADA allows both pre-employment inquiries regarding whether an applicant can “perform job-related functions” and medical examinations and inquiries during employment, so long as they are “job-related and consistent with business necessity.” Moreover, if an employer complies with the statute’s requirements for lawful employee entrance exams, it can legally withdraw an offer of employment if the prospective employee cannot meet a

403 See supra Section III.A.
405 Id. § 12112(d)(2)(B).
qualification standard that is “job-related and consistent with business necessity.” And finally, the ADA’s employment discrimination provisions apply only to “qualified individuals with disabilities,” that is, individuals who can perform “the essential functions of the employment position.” Thus, understanding the scope of the job and which functions are job-related and essential is crucial for applying the ADA.

The statutory text suggests that defining the contours of a particular job is a threshold matter. With a clear definition of the core functions of the specific job in question, an employer can go on to design inquiries or examinations that relate to those core functions, and any individual who cannot meet that basic threshold cannot sue for discrimination. But what are the essential, job-related functions of an NFL player?

The NFL or its clubs might define the essential job function of playing professional football as “being the best—the strongest, the fastest, the healthiest, etc.,—possible player,” making any health- or performance-related inquiry or examination job-related (and also perhaps consistent with business necessity). Moreover, if “being the best” is an essential job function, then any person who is not the highest performing player on his club, or perhaps in the league, will arguably not be a qualified individual entitled to the ADA’s antidiscrimination protections. Thus, under that reading, the clubs or the NFL could lawfully take adverse employment actions against all but a handful of players. Finding the best possible players appears to be what the clubs are really after in the Combine. But adopting a relativist definition of a given job position—i.e., wanting only the best—poses problems for the ADA. Its statutory requirements are transsubstantive across industries, such that absent sports-specific amendments to the law, whatever definition applies to the NFL will apply equally in all other employment settings.

To show why a relativist job description could be problematic, it may be helpful to go outside the NFL context for a moment. Suppose that Stanford Law School asked prospective law professors for medical information during the Association of American Law Schools (AALS) Faculty Recruitment Conference. When challenged that its actions violate the ADA or GINA, Stanford could adopt a relativist definition and defend its practices as job-related. It could argue that as an elite law school, it only wants the best professors who will perform at the highest level for the duration of their
careers. Thus, an applicant’s family medical history of Alzheimer’s could speak to the quality of a candidate’s scholarship across her lifetime appointment; the strength of her heart and her chance of cardiac arrest could speak to her chances of having to miss a semester due to a heart attack; and so on. Similarly, if “being the best” is an essential job function and a current professor suffers a heart attack or a stroke that lowers her productivity—causing it to fall below that of her colleagues—she would no longer be qualified, as she is no longer the best. Arguably, Stanford could then terminate her, even if she were still able to write and teach. Just like NFL clubs, Stanford has a limited number of available slots and would have an understandable preference to fill those slots with the absolute best possible candidates—not only those who will produce the best scholarship and be the best teachers, but those who will also be productive for the longest amount of time with the fewest distractions, health-related or otherwise. As this example indicates, if jobs are defined in terms of one’s ability to be the “best possible” person for the job and not simply as the ability to meet a certain basic threshold of performance, the job-related exceptions for medical examinations and inquiries will swallow the rule that prohibits them, and the ADA’s employment discrimination provisions will lose their teeth. In other words, the ADA’s protections would essentially disappear.

For this reason, we think the “threshold” model reading of the statute is the better fit. The ADA demands that employers define job positions and their requirements in absolute, not relative terms. That is not to say that an NFL club (or indeed a law school) cannot look at the “whole player,” but they need to do so in a way that is specific and defensible: they should articulate specific standards for the questions they ask at the Combine, identify a threshold value, and defend that value as related to a function of the job. In this way there is no “blank check” for asking any medical question a club may find useful. Instead, the law should require them to generate a carefully articulated and justified list of acceptable inquiries that invade the medical privacy of the player to the least extent possible.

Of course, any threshold requirements for being a professional football player would have to be carefully constructed. Every position is different, and the players are of different sizes and skill levels and fit within their teams differently. Thus, to be useful, any description of the essential, job-related functions of football would have to account for these variations. Although professional football is unique as an occupation, other professions with physical requirements that may want to recruit the best employees have adopted threshold physical requirements and designed their pre-employment and post-offer screenings accordingly. For example, fire departments tend to include extensive descriptions of the physical, mental,
and interpersonal requirements. Essential job requirements include knowledge of firefighting and good communication skills, as well as physical abilities. In Mesa, Arizona, specific physical essential job functions, for example, include “[w]ear[ing] personal protective equipment weighing approximately 70 pounds . . . in high humidity (up to 100 percent) situations . . . [while] rel[y]ing on [a] self-contained breathing apparatus for respiratory ventilation.” In Farmington, New Mexico, the job description includes both general requirements related to physical ability—such as being “frequently required to stand; walk; use hands to finger, handle, or operate objects, tools, or controls; and reach with hands and arms” and “occasionally [being] required to sit; climb or balance; stoop, kneel, crouch, or crawl; talk or hear; and taste or smell”—and specific requirements regarding lifting ability and vision. Thus, while defining specific baselines for physical performance in highly selective and physical jobs may be challenging, it is not impossible. Consequently, to fully comply with the law, the NFL and its clubs may require some clarification regarding how to apply basic employment law concepts like essential job functions and job-relatedness to professional football.

2. Independence of National Football Scouting

Another difficulty warranting further clarification is the way in which the Combine is run. Many of the evaluations described above are not being directly administered by the NFL, or the individual clubs. Instead, National Football Scouting functions as a separate corporate entity, which enters into a contractual agreement with the NFL for the operation of the Combine. The Combine is a scouting service used by the clubs and the NFL to make hiring decisions. It obtains information those entities can use when assessing prospective players. Moreover, while IU Health doctors test players at the Combine, clubs (and their medical staffs) also perform their own examinations and interviews.

However, it is not clear whether National Football Scouting itself independently qualifies as an employer, an employment agency, a labor organization, or a joint labor-management committee. Thus, to argue liability under the ADA or GINA, one would have to assert that National Football

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411 Firefighter, supra note 410; Lateral Firefighter, supra note 410.
412 Firefighter, supra note 410.
413 Lateral Firefighter, supra note 410.
414 See supra notes 43–45 and accompanying text.
415 See supra note 49 and accompanying text.
416 See supra note 51 and accompanying text.
Scouting is effectively operating as an agent or an extension of the NFL and its clubs. As mentioned above, if the NFL or the clubs maintain sufficient control over the operation of the Combine, National Football Scouting may likewise be bound by the applicable employment discrimination laws. As we discuss below in our Section on “Circumvention,” we would find any determination that employers can circumvent the ADA’s or GINA’s protections by outsourcing the prohibited examinations to be problematic. We therefore need clarity regarding whether the separate corporate status of National Football Scouting and the existing setup of the Combine immunize the clubs and the NFL from liability.

3. Scope of Medical Examinations and Inquiries (ADA)

Additionally, fully understanding how the ADA applies to professional football also requires clarification regarding how the statute defines medical examinations and disability-related inquiries, particularly with respect to the new technologies outlined above. Certain athletic drills and wearable technologies could reveal the presence of an impairment. If the results of these evaluations convey disability-related information to the NFL or the clubs, could they be considered medical examinations or inquiries covered by the ADA? If they are medical in nature, the ADA would restrict when and how the NFL, the clubs, or National Football Scouting may administer the drills or use the technologies. If they are not medical, the ADA would not regulate their use.

We can again return to firefighters as an illustrative example. The firefighter application process in Houston includes a pre-employment physical ability test that involves various simulations, such as a ladder raise, a dummy drag, and a mile-and-a-half run. After an applicant completes the physical ability test, a civil service exam, and an interview, she may receive an offer of employment contingent on her successful completion of a drug screening and medical and physical exams. Because the physical ability test is not considered a medical examination, fire departments can administer them pre-employment. Likewise, assuming athletic drills and use of wearable technologies are not medical, the NFL, the clubs, and National Football Scouting could require them even before a prospective player has an employment offer. Thus, whether the ADA applies to drills or wearable technologies that reveal impairments is another area that could benefit from further clarification.

417 See supra text accompanying notes 155–56.
418 See infra Section III.C.
The relationship between the ADA and GINA could also be clarified. Genetic tests appear to meet the ADA's definition of a medical examination. Yet in addition to abiding by the ADA's medical examination provisions, employers must follow GINA's prohibition of requests for genetic information. Thus, if an employer offers genetic testing, it would simultaneously violate both statutes. The relationship becomes somewhat more ambiguous regarding discrimination on the basis of genetic test results. In such cases, GINA would provide a clear remedy. However, a claimant could also argue that an adverse employment action based on her genetic information constitutes discrimination on the basis of a perceived disability. It would be useful to clarify whether the ADA provides concurrent protection in those cases.

4. Scope of Family Medical History (GINA)

Lastly, it would be helpful to have a definitive statement on the scope of GINA's protections for family medical history. As discussed above, the definition of genetic information includes "the manifestation of a disease or disorder in family members of such individual." Neither the statute nor the accompanying regulations restrict this provision to diseases or disorders proven to have a genetic component. Instead, the regulations focus on who is a family member. Perhaps Congress's decision not to cabin GINA's protections to family medical histories that communicate a known genetic risk was a strategic decision, as researchers constantly discover genetic risk factors for more and more conditions. Regardless, the courts have taken it upon themselves to limit the statute's coverage of family medical history to violations dealing only with manifested genetic diseases or disorders. Thus, it

421 See EEOC, supra note 176 (defining a "medical examination" as a "procedure or test that seeks information about an individual's physical or mental impairments or health").
423 See supra note 327 and accompanying text.
425 See supra note 328 and accompanying text.
would be useful for Congress or the EEOC to specifically address these interpretations. This clarification would be useful in the context of professional football and beyond.

C. Circumvention

Again, National Football Scouting is not technically owned or operated by the NFL but is rather a scouting service that is owned and managed by approximately two-thirds of the league’s clubs.426 Indeed, all thirty-two NFL clubs consider the medical examinations, performed by IU Health doctors and club physicians, to be the most important aspect of the Combine.427 It is worth reiterating that while employers can make job-related inquiries pre-employment, the ADA bans all pre-offer medical examinations,428 rendering what happens at the Combine a clear violation. Although some of the Combine’s interview questions might arguably fall within a broadly construed job-relatedness exception, all of the Combine’s medical examinations would seem to violate the ADA, as the statute applies to the clubs, and National Football Scouting appears to be acting as their agent when running the Combine.

Although we have no evidence to suggest that the corporate structure of National Football Scouting or the Combine in relation to the NFL and the clubs has been intentionally structured in order to circumvent the applicability of the ADA and of GINA, that may nonetheless be the effect. The end result is that through the Combine, the NFL clubs are getting the exact kinds of health-related information that the ADA and GINA seek to prohibit. Should these laws’ protections be rendered toothless because of this contractual end run? We think the answer is no. It would frustrate the purpose of those statutes to allow the corporate and contractual structure of the Combine to immunize misconduct.

A non-football example is informative, especially given that the laws in question are not football-specific. To return to the market for law professors, imagine that AALS set up its own combine—the “AALS Scouting Combine”—as a separately owned and incorporated organization to run a three-day event where all prospective law professors were subjected to medical examinations and inquiries of the kind done by the NFL. Should that be lawful if an individual law school could not do the same testing or ask the same questions due to the ADA’s or GINA’s protections? In other words, should the corporate formality of this combine not being organized by the law schools themselves—even if they send their own doctors and rely on medical reports done by combine

426 See supra note 43 and accompanying text.
427 See supra note 48 and accompanying text.
doctors—immunize the parties from ADA or GINA liability? We think that if the rules restricting medical examinations under the ADA or requests for genetic information pursuant to GINA are to mean anything, such corporate or contractual arrangements cannot be immunity-conferring.

The better rule, and the one for which we would advocate, would discourage any potential circumvention of these protections. It is often said one should “follow the money,” but in this context, one should “follow the data.” Our approach eschews the formalism of corporate organization and contractual relationships in favor of examining who is seeking medical data and to what end it is being sought. Regardless of National Football Scouting’s separate corporate status, the Combine is organized for the benefit of the clubs—a fact made clear given that they even send their own club doctors to interview and examine players there. The data is flowing to the clubs and aiding in their decisionmaking as to whom to hire.

Nor is it any answer to these concerns that players voluntarily go to the Combine and consent to these evaluations. Participating significantly increases a player’s chances of playing NFL football. To say that NFL hopefuls have freely chosen to participate adopts a truncated view of what freedom means. Consenting freely to one activity may mean inadvertently agreeing to subsequent activities, some in which—all things held equal—the person would not have otherwise chosen to do. Hence, when an aspiring NFL player consents to participate in the Combine, he also finds himself consenting to the public release of sensitive medical information—a condition to which, absent the Combine, he might not have agreed. The ADA’s and GINA’s prohibitions were put in place in part to prevent a race to the bottom and to prevent individual employees from facing a choice between consenting to such medical examinations and being beaten out for jobs by other employees who do. If such a purpose is to be effectuated, the design of the corporate form cannot circumvent the underlying obligation.

D. Changes

While we advocate for both compliance and clarification under the current law, we also recognize that playing NFL football—as well as professional sports generally—is not a typical occupation and, therefore, could warrant special treatment under the law. Thus, we propose three possible professional sports exceptions to the ADA and GINA. Additionally, we suggest a general reform to GINA designed to better protect employee safety.

429 See Jim Reineking, Notable Current NFL Players Who Weren’t Invited to the Combine, NFL (Feb. 16, 2016, 12:51 PM), http://www.nfl.com/photosays/oap30000006630659 [https://perma.cc/Z3YC-YZ6] (noting that 83.6% of players selected in the 2016 NFL Draft had attended the Combine and that no player who did not attend was drafted before the fourth round).
1. General Professional Football (Sports) Exemption

As mentioned throughout this Article, the ADA and GINA apply with equal force to professional sports as they do to traditional occupations. But perhaps they should not. Given the very exceptional nature of NFL football—the salaries, the selectivity, the degree of physical performance, the risk of serious injury, etc.,—health-related and medical information takes on an added level of relevance not present when hiring a factory worker or perhaps even a firefighter. While giving the NFL, the clubs, and National Football Scouting access to information that relates to disability or to genetic makeup opens the door for subsequent discrimination, the benefits may outweigh the risks. From the perspective of the clubs and the NFL, those entities want as much information as possible and to be able to make a decision about whether to invest in a particular player. From the perspectives of the players themselves, they also could have reasons for wanting to give the clubs, the NFL, and National Football Scouting medical or genetic information to allow them to make decisions based on that information. Since professional football is so physical, it may be in the interest of players to give as much medical information as possible—and to permit the NFL and the clubs to use that knowledge for work-related decisions, including injury-prevention purposes. Furthermore, medical and health-related information could be used to enhance performance and to help the players reach new levels of play. However, because of the restrictions on medical examinations and requests for genetic information, the NFL and the club may not be able to obtain data that could be used to enhance performance. Moreover, even if they could lawfully gain access to that information via one of the ADA's or GINA's exceptions, the statutes' anticlassification provisions could restrict the ability to act on it. Congress could therefore consider adding a professional sports exemption to the ADA and GINA.

But with that said, the NFL is a workplace like all others. People have as much a right to be free from disability and genetic-information discrimination there as elsewhere. The ADA builds in myriad defenses for an employer, and it is not clear that the NFL or the clubs warrant an extra privilege that is denied to every other employer in America. Thus, if Congress chooses to revisit the applicability of the ADA and GINA to professional sports organizations, it should first conduct extensive fact-finding regarding the benefits and the dangers of such a broad exemption, including the views of current and former players.

2. Exception to Medical Examination Provisions (ADA)

Another possibility would be a more narrow exception for just the ADA's disability-related inquiry and medical examination provisions, as opposed to an exception to the entirety of Title I of the ADA and Title II of GINA. Pre-
employment medical examinations are the most significant, especially given the central role the Combine plays in hiring. A very narrow professional sports exception might lift the outright ban on pre-employment medical examinations and instead require professional sports employers to conform with the universality, confidentiality, and antidiscrimination requirements imposed on employee entrance exams. Such an exception would leave the ADA’s antidiscrimination protections in place and still outlaw discrimination on the basis of disability that is not job-related and consistent with business necessity and that falls short under the direct threat defense. It would also leave intact the full panoply of GINA’s Title II protections.

3. Exception for Family Medical History (GINA)

Similarly, Congress could adopt a narrow exception that would allow professional sports employers to obtain and consider family medical history when it is relevant to a player’s risk of injury or could be used to improve performance. Such an exception would have to apply to both GINA’s privacy and antidiscrimination provisions. To allow access to potentially useful information about family medical history but prohibit the clubs or the NFL from acting on that information would undermine the potential benefit of such an exception.

4. Need for a Direct Threat Defense (GINA)

There is another respect in which we think GINA is too protective. As discussed above, the ADA provides employers a defense to charges of discrimination relating to threats to self or others.430 As mentioned, GINA has no equivalent defense available for employers who wish to protect the health and safety of their employees. In cases of direct threats to others, we think the fact that such a defense is unavailable in the GINA context is problematic. To be sure, because of the definition of “genetic information” within GINA—which requires that the disorder has not yet manifested at the time of the discrimination431—cases involving direct threats to others within the meaning of the statute are likely to be few in number. But if such a case arose—for example, if an NFL club determined through a genetic test that a player was likely to pose a direct threat to the safety of other players—we think that the club ought to have a defense if it refused to employ the player. Whether there ought to be a similar exception under GINA for cases where a player alleges he was discriminated against because he posed a direct threat to himself is a closer question. To see how this might come about, imagine a genetic

430 42 U.S.C. § 12113(b).
431 See supra note 330 and accompanying text.
test was developed to determine which players are at higher risk of chronic traumatic encephalopathy (CTE) after suffering a concussion. Such a test would reveal a susceptibility—not a manifested condition, and if the information was genetic in nature, it would fall within GINA’s antidiscrimination protections.

Should the NFL clubs nonetheless be given a prerogative to discharge a player if presented with this information? Our tentative assessment, with one important caveat, is yes. To illustrate, imagine a parallel case involving a susceptibility that had manifested: a player who was already showing signs of cognitive impairment and whom—for that reason—doctors were confident might suffer further (due to second impact syndrome) if he took another hit. Under the ADA, the employer might have a direct threat defense should that player be discharged. Now imagine that a potential player has not yet been injured but has a clear genetic susceptibility to traumatic brain injury. Why should we want a different rule in the context of genetic information? In both cases, the law has made a decision to overrule the autonomy of the player to decide whether or not to continue to play because there is a direct threat to his health that cannot be resolved by a reasonable accommodation. It seems to us the cases should be treated symmetrically, though we acknowledge that the matter is closer.

The caveat we want to emphasize is one about uniformity of application, a kind of equal protection notion. Because the direct threat defense is raised on a case-by-case basis, a club could in theory permissively dismiss one player due to a predisposition to CTE but not dismiss a similarly situated player. Such cherry-picking could be used to unfairly target certain players. That is, if the NFL or the club seeks to defend a discharge on this ground, the player

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432 This example is provided only as a simplified illustration. We recognize that the science of concussions and CTE is complicated and evolving and that there are disagreements on many things, including the causal pathway from football to CTE.

433 Second Impact Syndrome, BRAINANDSPINALCORD.ORG, http://www.brainandspinalcord.org/second-impact-syndrome/ [https://perma.cc/F4YV-7FC8] (“Second impact syndrome is a very rare condition in which a second concussion occurs before a first concussion has properly healed, causing rapid and severe brain swelling and often catastrophic results.”).


435 Perhaps some readers will think that neither the ADA nor GINA should overrule the player’s autonomy in this case, and that the direct threat to self-defense should be eliminated. That is an argument worth discussing at length, though not here. For now, our only point is about symmetry: conditional on believing that such a defense should exist, it is implausible to have it in the ADA but not GINA.
should be able to challenge that defense by showing that it has not been consistently applied to similarly situated players. This strategy has enjoyed at least some success in other employment contexts. For example, a diabetic police officer sued her employer for removing her from patrol duties following her diabetes diagnosis, arguing that the police department did not similarly remove other diabetic officers. The court rejected the employer’s direct threat defense and denied its motion for summary judgment on her ADA claim, and the case later settled. A showing that the employer treated some players one way while others a different way (perhaps based on their perceived support among fans, for example) could demonstrate that the offered defense is pretextual for discrimination, and thus forfeited. Yet even with a clearer uniformity requirement, an employer could still attempt to defend its actions by distinguishing between the two employees’ relevant risks or abilities to safely perform the job.

* * *

A player’s health and fitness directly impact his ability to play professional football. However, at present, federal employment discrimination laws—mainly the ADA and GINA—apply to the NFL’s, the clubs’, and perhaps National Football Scouting’s use of both old and new evaluative technologies. To that end, we first advocate compliance with the current law. Next we request clarity regarding how these statutes apply to the exceptional context of NFL football. We also seek to avoid circumvention of the law’s goals through clever corporate structuring. Finally, we suggest changes that could better balance the interests of the players and of the NFL and its affiliates.

CONCLUSION

As our analysis reveals, several of the accepted practices of the NFL, the clubs, and National Football Scouting could implicate current and prospective players’ rights under the ADA and GINA. First and foremost, we encourage the NFL, the clubs, and National Football Scouting to comply with the

437 See Jackson v. City of New York, No. 06-CV-1835, 2011 WL 1527935, at *1 (E.D.N.Y. Apr. 22, 2011) (adopting the magistrate judge’s recommendation in its entirety, which rejected the direct defendants’ threat defense).
438 Stipulation and Order of Settlement and Discontinuance at 1, Jackson v. City of New York, No. 06 CV 1835 (E.D.N.Y. Dec. 19, 2012).
439 Pugh v. City of Attica, 259 F.3d 619, 626 (7th Cir. 2001) (applying the McDonnell Douglas burden-shifting approach to ADA claims, which includes an analysis of whether the employer’s proffered reason for its adverse employment decision is pretext for illegal discrimination).
existing law. We invite lawmakers and regulators—specifically Congress and the EEOC—as well as stakeholders in professional football, to offer clarification about how those statutes apply to professional football players. We discourage circumvention of the law through clever corporate forms. And finally, we suggest possible legal reforms, including a broad professional sports exemption or more modest statutory exceptions.

While NFL players have been the exclusive focus of this Article—and we have emphasized time and again the players’ uniqueness as individuals and the uniqueness of their job—this Article has implications beyond professional sports. Many jobs include some physical element or the risk of potential injury. While the physical requirements of being a firefighter might be immediately apparent, administrative assistants must sometimes lift heavy boxes and nurses must help move patients.

Furthermore, employers have a number of reasons for being interested in the health of their employees, such as keeping the costs of providing health insurance down (especially now in the wake of the employer mandate\footnote{See ObamaCare Employer Mandate, OBAMACARE FACTS, http://obamacarefacts.com/obamacare-employer-mandate/ [https://perma.cc/L8HU-JN6Y] (‘ObamaCare’s ‘employer mandate’ is a requirement that all businesses with 50 or more full-time equivalent employees . . . provide health insurance to at least 95% of their full-time employees . . . ’).}) and avoiding lawsuits and workers’ compensation claims. Thus, while the NFL may be particularly interested in the health of its employee players, health risk and injury prevention are of interest to a wide range of employers for a variety of reasons.

As a result, some of our recommendations have implications outside the realm of professional sports. Specifically, clarifications regarding whether essential, job-related functions can be relative—as opposed to absolute; whether the ADA’s construction of medical examinations includes wearable technology or genetic tests; and whether GINA’s family medical history protections only cover manifested conditions with genetic components would be of use to many if not all kinds of work. Moreover, adding a direct threat defense to GINA could further employee health beyond professional sports, and requiring uniformity in an employer’s invocation of the direct threat defense for both the ADA and GINA could avoid using risk as a pretext for discrimination. Thus, while NFL football is unique, it provides a valuable analytical lens for exploring the intersections of employment, medical care, privacy, and antidiscrimination.
**Online Appendix A: Average Height and Weight of NFL Players**

<table>
<thead>
<tr>
<th>Position</th>
<th>Height</th>
<th>Weight (pounds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Offense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarterback</td>
<td>6'3&quot;</td>
<td>223.8</td>
</tr>
<tr>
<td>Running Back</td>
<td>5'11&quot;</td>
<td>215.3</td>
</tr>
<tr>
<td>Wide Receiver</td>
<td>6'1&quot;</td>
<td>202.6</td>
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<tr>
<td>Tight End</td>
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<tr>
<td>Offensive Tackle</td>
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<td>313.5</td>
</tr>
<tr>
<td>Guard</td>
<td>6'4&quot;</td>
<td>314.5</td>
</tr>
<tr>
<td>Center</td>
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<tr>
<td>Defense</td>
<td></td>
<td></td>
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<tr>
<td>Defensive Tackle</td>
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<td>Defensive End</td>
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</tr>
<tr>
<td>Safety</td>
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<td>207.6</td>
</tr>
</tbody>
</table>

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ONLINE APPENDIX B: EVALUATIVE TECHNOLOGIES

Preface: In our descriptions of the below evaluative technologies, we include potential benefits and risks to players that could result from use of these technologies. Nevertheless, for several of these technologies, it is unclear if they have ever been used in the potentially beneficial or detrimental manners described.

A. Company: Catapult Sports (Catapult)¹

**Headquarters Location:** Australia²

**Technology Category:** Player Tracking and Force

**Available Technologies:** Catapult provides matchbook-sized GPS devices, which are housed in straps worn around the player’s chest or in a pocket in the player’s shirt.³ The devices contain inertia sensors capable of measuring and collecting data about the player’s performance, including agility, force, and acceleration.⁴ The data is transmitted by radio to cloud-based software for analysis.⁵

**FDA Status:**⁶ A review of the FDA’s Medical Devices database does not reveal that Catapult has received FDA approval for these devices.⁷

**Current Use in the NFL:** Catapult’s technology is currently used by seventeen NFL clubs (the Atlanta Falcons, Buffalo Bills, Cleveland Browns,  

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⁴ Id.

⁵ Id.

⁶ Note that some of the technologies discussed herein may not require FDA approval. Additionally, while we have searched the FDA’s Medical Devices database to determine whether a company’s product has obtained FDA approval, we cannot be certain that the technologies are not FDA–approved.


Benefits and Risks to Players: Presently, the devices are used during practices but not during games.9 Clubs are principally focused on using the device to prevent injuries.10 By measuring the forces exerted by players during each practice, clubs can identify which players exerted high or excessive amounts of force and, as a result, have them participate less or at a lower intensity in future practices.11 Additionally, the clubs are able to use the data to design practices that are more efficient and less damaging to players, as well as create practice regimens that suit the needs of each position.12

The devices could also be used to the detriment of players. The data recorded also shows which players are moving slower and less forcefully than others, which could cause a club to terminate those players’ contracts.

Current Use in Other Professional Sports: Catapult’s technology is being used by ten NBA clubs (the Dallas Mavericks,13 Golden State Warriors, Houston Rockets, Memphis Grizzlies, New York Knicks, Orlando Magic, Philadelphia 76ers, Sacramento Kings, San Antonio Spurs and Toronto Raptors); two NHL clubs (the Buffalo Sabres and the Philadelphia Flyers); and dozens of foreign sports organizations including those in soccer, rugby, hockey, and rowing.14

B. Company: Zebra Technologies, Inc. (Zebra)15

Headquarters Location: Lincolnshire, Illinois16
Technology Category: Player Tracking

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10 Id.
11 Id.
12 Id.
14 See Clients, supra note 8.
Available Technologies: Zebra’s MotionWorks sports tracking technology is a wearable real time location system (RTLS). Zebra places quarter-sized, radio-frequency identification (RFID) transmitters “inside the shoulder pads of each player to capture precise location measurements, in real time, during the game.” The data is then transmitted to devices located throughout the stadium. Zebra’s technology collects “data such as position, speed, and distance that [is] registered and compiled into a database.” Zebra’s technology does not use GPS.

FDA Status: A review of the FDA’s Medical Devices database does not show that Zebra has received FDA approval for its device.

Current Use in the NFL: Zebra is “[t]he Official On-Field Player-Tracking Provider” of the NFL. In July 2014, the NFL announced that it would install Zebra’s technology in seventeen stadiums during the 2014 NFL season. Specifically, the NFL planned to install the technology in the fifteen stadiums that hosted Thursday Night Football games, as well as in Detroit and New Orleans. In 2016, the NFL and Zebra announced that Zebra’s technology would be deployed in all NFL stadiums in the United States. In addition, the NFL planned to install Zebra technology in Camping World Stadium in Orlando, in Wembley and Twickenham Stadiums in London, and in Estadio Azteca in Mexico City. The announcement also noted that for the first time, the NFL used Zebra’s RFID tags in every football during the
In addition, starting in the 2016 season, the NFL provided data generated by Zebra's technology to each NFL club.

Benefits and Risks to Players: The principal purpose of Zebra's technology is for entertainment purposes. Beginning with the 2014 season, the NFL has broadcasted the data from the Zebra sensors in real time during the games, showing how fast players are moving and how far they are running. Because the sensors track player speed and movement, the data could also be used by clubs to analyze player performance and make related roster decisions.

Zebra's technology offers little benefit to players. Unlike Catapult’s devices, the Zebra technology does not measure force to help players avoid injury. Theoretically, players could use the data to understand and thus improve their performance, including their speed and positioning on the field, but this data seems to largely duplicate the data derived from game tapes that players already watch.

Current Use in Other Professional Sports: Zebra’s technology is also used in NASCAR and in Chinese women’s soccer.

C. Company: Omegawave

Headquarters Location: Finland

Technology Category: Readiness

Available Technologies: Omegawave’s technology is used prior to practice to measure an athlete’s “[r]eadiness” for activity. The process begins with the athlete wearing a heart rate monitor band and two Omegawave sensors, which are electrodes placed on the athlete’s forehead and hand, for two to five

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28 Id.
29 Id.
31 See The NFL Is Finally Tapping into the Power of Data, WIRED (Jan. 13, 2016, 6:55 AM), https://www.wired.com/2016/01/the-nfls-impending-data-revolution [https://perma.cc/V8P4-EWCF] (explaining that currently, “the Zebra system can’t directly measure deceleration force at the head, because the sensors are in the shoulder pads” but noting that the addition of a “Bluetooth-connected accelerometer to helmets is well within current capabilities”).
33 Partners in Innovation, supra note 23.
minutes. The sensors measure the electrical activity generated by the body and purport to determine the “readiness” of the athlete’s central nervous, cardiac, energy supply, neuromuscular, and sensorimotor systems for physical activity. The data is transmitted to Omegawave’s cloud technology through the athlete’s smartphone. The athlete or his coaches then receive Omegawave’s analysis via smartphone and can adjust the athlete’s workout based on his readiness, including reducing the workout to prevent injuries.

FDA Status: A review of the FDA’s Medical Devices database does not reveal that Omegawave has received FDA approval for its device.

Current Use in the NFL: The only NFL clubs reportedly using Omegawave’s products are the New England Patriots and Philadelphia Eagles.

Benefits and Risks to Players: Omegawave’s technology could be useful to players and help them avoid injuries. If the product works as intended, this technology could help players understand the limitations of their bodies and to structure and conduct their workouts accordingly.

Omegawave’s technology appears to have limited downside to players. While coaches obtain data that might show a player is physically ill-prepared for practice and thus think less of the player, presumably if the player is not prepared that will be demonstrated during practice anyway.

Current Use in Other Professional Sports: Omegawave’s technology is also being used by an uncertain number of NHL, MLB, and MLS clubs. In addition, the technology is popular among professional endurance athletes such as runners, cyclists, and triathletes.

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37 FOMIN & NASEDKIN, supra note 35 at 14.
38 Id.
39 Id.
41 The FDA’s Medical Devices database revealed no entries for Omegawave’s devices. See 510(k) Premarket Notification, supra note 7.
42 Kamenetzky, supra note 40.
43 On Omegawave’s website, one can request scientific literature Omegawave asserts validates its products. See Welcome to Omegawave Knowledge, OMEGAWAVE, http://www.omegawave.com/knowledge [https://perma.cc/T85G-7LSM].
D. Company: Polar

Headquarters Location: Finland

Technology Category: Heart Rate

Available Technologies: Polar is one of the world’s leading heart rate monitor companies, having first developed the technology in 1977. Athletes wear heart rate monitor straps around their chest, and the straps wirelessly transmit data to a wristwatch.

FDA Status: A review of the FDA’s Medical Devices database does not reveal that Polar has received FDA approval for these devices.

Current Use in the NFL: In 2011, Polar became the “official heart rate training system” for the Atlanta Falcons. Polar outfitted the Falcons with their monitors to allow the coaches to monitor the intensity of the players’ workouts and their ability to recover. As of 2013, Polar products are reportedly used by five NFL clubs.

Benefits and Risks to Players: Polar’s products promise to help players and their clubs. Heart rate can be a useful measure of an athlete’s exertion levels. By knowing a player’s heart rate, the player and/or his coach can increase or decrease the intensity of the workout as appropriate.

A foreseeable concern for players relates to the diagnostic potential of the technology. Heart rate monitors enable a club to learn medical information about a player that may cause it to reconsider the player’s short-term or long-term employment. At the same time, they inform the player of a medical condition (such as an irregular heartbeat) that he should perhaps take steps to address.

Current Use in Other Professional Sports: Polar heart rate monitors are also used in the NHL and European soccer leagues. Additionally, heart rate monitors are standard equipment for endurance athletes such as runners, cyclists, and triathletes.

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46 [Polar Origins](https://www.polar.com/us-en/about_polar/who_we_are/polar_origins [https://perma.cc/N27M-WHXK]).
47 [Who We Are](http://www.polar.com/us-en/about_polar/who_we_are [https://perma.cc/DQ3B-4MSD]).
48 The FDA’s Medical Devices database revealed no entries for Polar’s devices. See 510(k) Premarket Notification, supra note 7.
52 Ledbetter, supra note 50.
Evaluating NFL Player Health and Performance

E. Company: Fatigue Science

Headquarters Location: Vancouver, British Columbia
Technology Category: Sleep
Available Technologies: Fatigue Science offers a wrist-worn device called Readiband that is worn while sleeping and collects data about an athlete’s sleep, including quality, quantity and timing. The Readiband captures “actigraphy” data, measurements of the tiny movements in the wearer’s wrist. Readiband takes sixteen measurements per second and processes the data through an algorithm to determine when someone is sleeping or awake.

FDA Status: Approved

Current Use in the NFL: The Seattle Seahawks are the only NFL club known to be utilizing Fatigue Science’s technology.

Benefits and Risks to Players: Fatigue Science’s technology can be beneficial to players. The importance of sleep from a medical and scientific viewpoint is well-established, and studies link sleep to athletic performance. Thus, if players have more accurate data about their sleep, they can take steps to sleep better and improve their health and performance.

Fatigue Science’s technology should have limited adverse effects on NFL players. One possible downside is that clubs could learn that a player is failing to get enough sleep because of his own poor behaviors, such as staying out late.

Like Polar’s heart rate monitoring devices, Fatigue Science’s technology could have complications for players if used diagnostically. While a player might learn of a medical condition that he should perhaps take steps to address, the club might learn medical information about the player that causes them to reconsider the player’s short-term or long-term employment. For example, a club could learn of a

53 Contact, FATIGUE SCI., https://www.fatiguescience.com/contact/ [https://perma.cc/MHX8-EU4H].
56 Id.
57 The FDA’s Medical Devices database revealed relevant entries for Fatigue Sciences’s devices. See 510(k) Premarket Notification, supra note 7.
59 See, e.g., Cherie D. Mah et al., The Effects of Sleep Extension on the Athletic Performance of Collegiate Basketball Players, 34 SLEEP 943, 946 (2011) (explaining the improvements to athletic performance demonstrated by members of the Stanford men’s basketball team after increasing their nightly sleep time); Roger S. Smith et al., The Impact of Circadian Misalignment on Athletic Performance in Professional Football Players, 36 SLEEP 1999, 1999 (2013) (“Sleep deprivation can impair performance in athletes . . .”).
player’s sleep apnea, from which 34% of offensive linemen (the biggest players on the club) suffer, according to a 2003 study.60

Current Use in Other Professional Sports: Fatigue Science’s technology is also used by the Seattle Mariners and the Chicago Cubs of MLB and the Seattle Sounders of the MLS.61

F. Company: Proteus Digital Health, Inc.

Headquarters Location: Redwood City, California62
Technology Category: Heart Rate and Body Temperature
Available Technologies: Proteus’s technology involves a pill and a wearable sensor.63 When an athlete swallows a Proteus pill, stomach fluids activate an edible communications device contained in the pill, sending wireless signals through the body to a sensor the athlete wears.64 The technology is able to track and record physiologic information, including “heart rate, respiration rate, skin temperature, activity, body posture and other associated metrics.”65 The data can be uploaded to a smartphone for review.66

FDA Status: Approved67
Current Use in the NFL: There are no reports of any NFL clubs using Proteus’s technology.

Benefits and Risks to Players: Proteus’s technology could help players understand their current condition and adjust their training appropriately. The

61 Predictive Fatigue Management for Industry and Elite Sport, supra note 58. Fatigue Science’s technology is also used by military organizations and the heavy industry and transportation industries. Id.
64 Id.
66 Kesterton, supra note 63.
67 The FDA granted Proteus’s “de novo petition for the Proteus Personal Monitor including Ingestion Event Marker” in 2012. Evaluation of Automatic Class III Designation (De Novo) for Proteus Personal Monitor Including Ingestion Event Marker, U.S. FOOD & DRUG ADMIN. (May 7, 2012), http://www.accessdata.fda.gov/cdrh_docs/reviews/k113070.pdf [https://perma.cc/VC5K-NM4E]. The personal monitor was classified as a Class II device. Id. Classification is determined by “the risk the device poses to the patient and/or the user is a major factor in the class it is assigned,” with the lowest risk devices assigned to Class I and devices with the greatest risk assigned to Class III. Classify Your Medical Device, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/ClassifyYourDevice/ [https://perma.cc/pSV6-MX4B] (last updated July 29, 2014).
technology is potentially most useful during summer training camps when overheating is a major concern that has had fatal consequences, including the death of Minnesota Vikings’ offensive lineman, Korey Stringer, in 2001.68

Similar to Fatigue Science’s technology, it is unclear to what extent Proteus’s technology could be used diagnostically and thus provide both medical information that could benefit the player but also potentially harm him in his employment.

Current Use in Other Professional Sports: There are no reports of any professional sports leagues using Proteus’s technology.

G. Company: BioForce HRV (BioForce)

Headquarters Location: Kirkland, Washington69
Technology Category: Heart Rate and Readiness
Available Technologies: “BioForce HRV” is a web and smartphone application that collects heart rate data to measure heart rate variability (HRV).70 BioForce claims that HRV is a measure of an athlete’s “readiness and fatigue.”71 The company sells the software and a membership.72 While the company offers a Bluetooth chest strap and HRV finger sensor, the software is also designed to work with other heart rate monitors, such as Polar’s, discussed above.73

FDA Status: A review of the FDA’s Medical Devices database does not show that BioForce has received FDA approval for its software or devices.74

Current Use in the NFL: BioForce’s website asserts that several NFL clubs are using the product.75 The product was developed by Joel Jamieson, a former strength and conditioning coach for the Seattle Seahawks.76

71 How BioForce HRV Works, supra note 70.
72 Bioforce HRV Sales, supra note 70.
73 Id.
74 The FDA’s Medical Devices database revealed no entries for BioForce HRV devices. See 510(k) Premarket Notification, supra note 7.
76 See HRV Explained Part 3: How to Measure HRV, HRVTRAINING (Jan. 20, 2012), http://hrvtraining.com/2012/10/20/hrv-explained-part-3-how-to-measure-hrv/ [https://perma.cc/4XS7-B6H] (mentioning that product was developed by Jamieson, a “former NFL strength coach”); see also Don Ruiz, Sounders Have Faith in High-Tech Drills, KITSAP SUN (Bremerton, Wash.), Nov. 6, 2009, 2009 WLNR 30313819 (mentioning Jamieson’s prior work with the Seahawks).
Benefits and Risks to Players: As with Polar’s heart rate monitors, understanding a player’s heart rate can help the player and the club modify practice intensity as necessary. Yet, the product could potentially cause problems if used diagnostically. While a player might learn of a medical condition that he should perhaps take steps to address, the club might learn medical information about the player that causes them to reconsider the player’s short-term or long-term employment.

Current Use in Other Professional Sports: BioForce also asserts that its product is being used by NBA, MLB, NHL and MLS clubs, as well as in the UFC.77


Headquarters Location: Bellevue, Washington78
Technology Category: Hydration
Available Technologies: Atago offers a device known as the PEN-Urine S.G. that is a handheld device used to measure the specific gravity of urine by dipping the tip of the device into a urine sample.79 The specific gravity of urine is generally indicative of the athlete’s hydration level.80

FDA Status: A review of the FDA’s Medical Devices database does not reveal that Atago has received FDA approval for its device.81

Current Use in the NFL: Research has not revealed that the PEN-Urine S.G. is being used by any NFL clubs. However, there have been reports of NFL clubs using unidentified hydration measurement devices (some of which may be the PEN-Urine S.G.).82

77 The Future of Personal Training Has Arrived, supra note 75.
81 While the FDA reviewed Atago’s notice of intent to market its device in 2002 and allowed the company to do so “subject to the general controls of the [Federal Food, Drug, and Cosmetic Act],” the Agency did not grant FDA approval. Letter from Alan E. Williams, Dir., Div. of Blood Applications, to Guy McFarland, Chairman, VEE GEE Sci., Inc. (Jan. 2, 2002), http://www.fda.gov/BiologicsBloodVaccines/BloodBloodProducts/ApprovedProducts/SubstantiallyEquivalent510kDeviceInformation/ucm088923.htm [https://perma.cc/N8LQ-5KEZ].
Benefits and Risks to Players: The PEN-Urine S.G. could help ensure that players are properly hydrated during practices and games, particularly during the hot summer training camps. The PEN-Urine S.G. could assist clubs in preventing dehydration and related conditions, including cramping and potentially fatal heatstroke.

The PEN-Urine S.G. could, however, also have concerning interplay with the NFL–NFLPA Policy on Performance-Enhancing Substances (PES Policy) and the NFL–NFLPA Policy and Program on Substances of Abuse (Drug Policy).

The PES Policy sets a minimum level for the specific gravity of a urine specimen. Specific gravity below the minimum threshold is considered an indication of the player having used a diuretic, which is banned by the PES Policy. The Drug Policy also sets a minimum level for the specific gravity of a urine specimen. Specific gravity below the minimum threshold is considered a diluted specimen, in violation of the Drug Policy.

Although the Drug Policy and PES Policy contain limitations on the amount of testing the NFL can perform, the PEN-Urine S.G. could potentially reveal some of the same information sought by testing under those policies. Violations of either the Drug Policy or the PES Policy can subject players to fines and

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84 Nat’l Football League & Nat’l Football League Players Ass’n, Policy and Program on Substances of Abuse (2016) [hereinafter Policy and Program on Substances of Abuse].


87 See Policy on Performance-Enhancing Substances, supra note 83, at 13 (“The use of so-called ‘blocking’ or ‘masking’ agents is prohibited by this Policy. These include diuretics or water pills, which have been used in the past by some Players to reach an assigned weight.”).

88 Edward J. Cone et al., Normalization of Urinary Drug Concentrations with Specific Gravity and Creatinine, 33 J. ANALYTICAL TOXICOLOGY, Jan./Feb. 2009, at 1, 1 (“Methods utilized in drug testing programs to minimize the effect of excessive dilution frequently include measuring specific gravity and creatinine. ‘Dilute’ urine specimens are defined . . . as those specimens whose specific gravity is > 1.0010, but < 1.0030 and their creatinine concentration is ≥ 2.0, but < 20.0 mg/dL.”); Policy and Program on Substances of Abuse, supra note 84, at 10 (defining a “dilute specimen” as “urine specimen that has a specific gravity value less than 1.003 and a creatinine concentration of less than 20 mg/dL”).

89 See Policy and Program on Substances of Abuse, supra note 84, at 11-12 (“A Player who . . .

90 See Policy and Program on Substances of Abuse, supra note 84, at 9 (limiting testing for players under contract to once during the preseason unless the player has previously failed a test); Policy on Performance-Enhancing Substances, supra note 83, at 5 (providing for ten players per club to be tested each week of the preseason, regular season, and postseason); id. at 12 (limiting blood tests for HGH to six times per calendar year).
suspensions; therefore, they potentially have reason to be concerned about the usage of the Pen-Urine S.G. test.

**Current Use in Other Professional Sports:** Research has not revealed that the PEN-Urine S.G. is being used in any other professional sport.

### I. Company: PUSH

**Headquarters Location:** Toronto, Canada

**Technology Category:** Force

**Available Technologies:** “PUSH” is a wearable armband that includes both an accelerometer and a gyroscope to measure an athlete's power (in watts) and velocity while weightlifting. The data is transmitted wirelessly to the athlete's smartphone where it can be analyzed by the athlete and coaches.

**FDA Status:** A review of the FDA's Medical Devices database does not reveal that PUSH has received FDA approval for its device.

**Current Use in the NFL:** PUSH is being used by the San Francisco 49ers.

**Benefits and Risks to Players:** PUSH can provide data to players that can be useful in decreasing or increasing the intensity of strength training workouts. Such information could also help prevent players from overtraining and injuring themselves.

There is no clear downside for players’ use of PUSH. Players already lift weights and have that information monitored by the club. Thus, while PUSH provides a new type of weightlifting data, the clubs already know the relative strengths of each player and can make any related decision accordingly.

**Current Use in Other Professional Sports:** PUSH is being used by the Dallas Stars (NHL) and by international rugby and soccer teams.
J. Company: EliteForm

Headquarters Location: Lincoln, Nebraska

Technology Category: Force

Available Technologies: EliteForm combines 3D camera technology mounted on weightlifting racks with software that provides athletes results in real time, capturing the metrics of every repetition completed and storing it online. Specifically, EliteForm measures an athlete’s power and velocity.

FDA Status: A review of the FDA’s Medical Devices database does not reveal that EliteForm has received FDA approval for its device.

Current Use in the NFL: The only NFL club reported to have used EliteForm is the Philadelphia Eagles.

Benefits and Risks to Players: EliteForm’s technology is similar to that of PUSH and offers the same potential benefits and concerns to players.

Current Use in Other Professional Sports: EliteForm has been used by major college football and basketball programs, but there are no reports of it being used by other professional sports clubs.

K. Company: HQInc.

Headquarters Location: Palmetto, Florida

Technology Category: Body Temperature

Available Technologies: HQInc. offers an ingestible sensor, known as “CorTemp,” that wirelessly transmits an athlete’s core body temperature as the sensor travels through the digestive tract. The sensor’s signal passes through the body to the CorTemp Data Recorder worn on the outside of the body. The sensor is silicone coated and contains a micro battery, quartz crystal, communication coil and circuit board, all encapsulated in medical grade epoxy. Once ingested, the crystal sensor vibrates at a frequency relative to the body’s internal temperature, produces a magnetic flux and transmits a...
low-frequency signal harmlessly through the body,” which is sent to a data recorder. The sensor passes through the body at the athlete’s normal rate of digestion and is used only once.

**FDA Status:** HQInc.’s website says that CorTemp has been FDA-approved, however, a review of the FDA’s Medical Devices database does not reveal any FDA approval for its device.

**Current Use in the NFL:** The Jacksonville Jaguars, Philadelphia Eagles, and Minnesota Vikings have been identified as clubs using CorTemp.

**Benefits and Risks to Players:** Players’ body temperatures—particularly during training camp—are a major concern. Thus, the CorTemp product can provide useful, real-time data to ensure that players’ body temperatures are kept in a safe range. Assuming the product operates as advertised, there are no apparent downsides to players using CorTemp.

**Current Use in Other Professional Sports:** CorTemp has been used in race car driving, as well as by college football teams. NFL clubs have been using CorTemp since approximately 2003.

### L. Company: X2 Biosystems (X2)

**Headquarters Location:** Seattle, Washington

**Technology Category:** Head Impact Sensors

**Available Technologies:** X2 offers two types of sensors designed to measure the force of hits sustained by players and transmit that data wirelessly to mobile devices. The first sensor is embedded into the player’s mouthguard and the

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108 Id.

109 Id.

110 See About Us, supra note 105 (stating that CorTemp product is FDA approved).

111 As of November 2016, the FDA’s Medical Devices database revealed no entries for HQInc.’s devices. See 510(k) Premarket Notification, supra note 7.


115 Contact, X2 BIOSYSTEMS, https://www.x2biosystems.com/x2_contact/ [https://perma.cc/ZAQ4-3LMS].

second is worn as a patch behind the player’s ear. X2 also offers a concussion evaluation software that can gather data to help diagnose concussions.

**FDA Status:** A review of the FDA’s Medical Devices database does not reveal that X2 has received FDA approval for its device.

**Current Use in the NFL:** Beginning with the 2013 season, NFL clubs were provided with X2’s software to use in the evaluation of possible concussions. Around the same time, the NFL commissioned a study of X2’s mouthguard for potential use during NFL games. In February 2015, the NFL announced that it would delay implementation of the X2 mouthguard during games because studies had shown them to be unreliable at the present time.

**Benefits and Risks to Players:** If X2’s products can accurately and reliably assist in the diagnosis of concussions, then the products will be incredibly useful in protecting the health of players.

However, players and the NFLPA have expressed resistance to the sensors. Players are concerned that, if the data is not reliable, it could be used to remove from the game players who do not need to be removed. Additionally, players are concerned that the data will be used by clubs to avoid employing players with a history of concussions.

**Current Use in Other Professional Sports:** The NHL and MLS also use X2’s concussion evaluation and management software.

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118 *Id.*


120 The FDA’s Medical Devices database revealed no entries for X2’s devices. See 510(k) Premarket Notification, supra note 7.


123 *Id.*

124 *Id.*

125 *Id.*

126 *Id.*

M. Company: Riddell and its Subsidiary Simbex

Headquarters Location: Rosemont, Illinois (Riddell)\textsuperscript{128} and Lebanon, New Hampshire (Simbex)\textsuperscript{129}

Technology Category: Head Impact Sensors

Available Technologies: Riddell, the leading football equipment manufacturer, developed what is known as the Head Impact Telemetry System (HITS)\textsuperscript{130}. HITS is a system of sensors housed within football helmets which are intended to measure and record the location, magnitude, duration, and direction of head impacts.\textsuperscript{131} Data from the sensors can be uploaded to computers for analysis.\textsuperscript{132}

FDA Status: A review of the FDA’s Medical Devices database does not reveal that Riddell has received FDA approval for its device.\textsuperscript{133}

Current Use in the NFL: In 2014, the NFL commissioned a study of the effectiveness of HITS with the intention of possibly implementing it into NFL games in 2015.\textsuperscript{134} However, after the study showed the data to be unreliable, the NFL indefinitely postponed use of HITS.\textsuperscript{135}

Benefits and Risks to Players: The possible benefits and concerns of HITS are the same as those of X2’s head impact sensors.

Current Use in Other Professional Sports: HITS was designed exclusively for football so it is not currently being used in any other professional sports.
NATIONAL INVITATIONAL CAMP, INC.

AUTHORIZATION FOR USE AND DISCLOSURE OF RECORDS AND INFORMATION

Name: ________________________________  D.O.B.: __________________________

Address: ______________________________

City: __________________ State: _______ Zip: __________________________

1. Persons/Entities Authorized to Release and Disclose Information:

I hereby authorize and give my permission to the following persons and/or entities to release and disclose my medical records, medical information, and/or “protected health information” (as defined under the Health Insurance Portability and Accountability Act, as amended, and the regulations thereunder (“HIPAA”)), altogether, my “PHI”, in the manner described in this Authorization:

National Football Scouting, Incorporated, the National Football League and each of its member Clubs, as now existing or at any time in the future (“NFL”), the National Football League Drug Advisers and Medical Advisors, National Invitational Camp, Inc., the advisors to the National Football League’s Policy and Program on Substances of Abuse, the advisors to the National Football League’s Policy on Anabolic Steroids and Related Substances, the advisors to the National Football League’s Prescription Drug Program and Protocol, any NFL Club medical staff members, team physicians, athletic training staff members, committees, panels, programs and boards commissioned by the NFL for player health and safety initiatives, Quintiles, Inc., or any successor entity engaged by the NFL to provide data-related analytics and other services (including services intended to support player health and safety initiatives), any outside or third-party physicians, physician groups, hospitals, clinics, laboratories, consulting physicians, specialists, pharmacies, and/or healthcare professionals engaged by National Football Scouting, Inc., National Invitational Camp, Inc., the NFL or any NFL Club(s) for the purpose of providing medical care to the releasor, and any present and future electronic medical record vendors and/or prescription networks used
by the NFL or any NFL Club(s), including, but not limited to, eClinicalWorks, Inc., Intelemage, LLC, and/or Infiniti, Inc., and their respective representatives, agents, and/or employees, officers, servants, staff members, and contractors of the foregoing.

2. Personal Health Information to Be Used and Disclosed:

I hereby authorize the following medical records and/or PHI to be used and disclosed as described in this Authorization to the Authorized Parties (defined below):

My entire health or medical record and/or PHI relating to any injury, sickness, disease, mental health condition, physical condition, medical history, medical or clinical status, diagnosis, treatment or prognosis from any source, including without limitation all written and/or electronic information or data, clinical notes, progress notes, discharge summaries, lab results, pathology reports, operative reports, consultations, physicals, physicians’ records, athletic trainers’ records, diagnoses, findings, treatments, history and prognoses, test results, laboratory reports, x-rays, MRI, and/or imaging results, outpatient notes, physical therapy records, occupational therapy records, prescriptions, and any and all other information pertaining to my past, present, or future medical condition, diagnosis, treatment, history, and prognosis. This Authorization expressly includes all records and PHI relating to any mental health treatment, therapy, and/or counseling, but expressly excludes psychotherapy notes.

3. Persons/Entities Authorized to Receive and Use:

I hereby authorize the following persons and/or entities to receive and use my medical records and/or PHI only for the purposes that are permitted under this Authorization. These persons and entities will be referred to as the “Authorized Parties”:

National Football Scouting, Inc., the National Football League and each of its member Clubs, as now existing or at any time in the future (“NFL”), the National Football League Drug Advisers and Medical Advisors, National Invitational Camp, Inc., the advisors to the National Football League’s Policy and Program on Substances of Abuse, the advisors to the National Football League’s Policy on

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Anabolic Steroids and Related Substances, the advisors to the National Football League’s Prescription Drug Program and Protocol, any NFL Club medical staff members, team physicians, athletic training staff members, the NFL Players Association Executive Committee, Medical Advisors and designated legal counsel, committees, panels and boards commissioned by the NFL or NFLPA for player health and safety initiatives, Quintiles, Inc., or any successor entity engaged by the NFL to provide data-related analytics and other services (including services intended to support player health and safety), any outside or third-party physicians, physician groups, hospitals, clinics, laboratories, consulting physicians, specialists, pharmacies, and/or healthcare professionals engaged by National Football Scouting, Inc., National Invitational Camp, Inc., the NFL or any NFL Club(s) for the purpose of providing medical care to the releasor, and any present and future electronic medical record vendors and/or prescription networks used by the NFL or any NFL Club(s), including, but not limited to, eClinicalWorks, Inc., and/or Infinitt, Inc., and their respective representatives, agents, and/or employees, officers, servants, staff members, and contractors of the foregoing.

4. Purpose of the Disclosure:

This Authorization for Use and Disclosure of Records and Information is only for purposes relating to: (a) my actual or potential employment in the National Football League, including for the provision of healthcare, evaluation, consultation, treatment, therapy, and related services, which purposes are limited to reviewing, discussing, transmitting, disclosing, sharing, and/or using my medical records and PHI between and among: (i) any of the Authorized Parties and (ii) any of my healthcare providers and/or mental health providers, for: (b) employment-related injury reports; (c) the activities of the National Football League Drug Advisors, the advisors to the National Football League’s Policy and Program on Substances of Abuse, and/or the advisors to the National Football League’s Policy on Anabolic Steroids and Related Substances, specifically limited to due diligence and audit activities, investigations of possible violations of the Policies or eligibility for a “therapeutic -use” exception under either Policy; (d) ophthalmic examinations, consultations or treatment; (e) NFL player health and safety initiatives and projects, in accordance with the August 4, 2011 Collective Bargaining Agreement and amendments to it, including without limitation the Side Letter Agreement regarding the Injury Surveillance System and Player Health

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Information Analysis, Dissemination and Research, dated December 2014 (“CBA”).

Notwithstanding anything to the contrary, I hereby permit my medical information and PHI to be used and disclosed as expressly permitted or required under the CBA.

5. **Expiration Date:** This Authorization will expire two (2) years from the date of signature below.

6. **Photocopy:** A photostatic copy of this Authorization shall be considered as effective and valid as the original.

7. **Signature:** By my signature below, I acknowledge that I have read this Authorization, understand my rights as described herein, understand that I am allowing medical and mental healthcare providers, and others set forth in Section 1 above, to disclose my PHI, and have had any questions answered to my satisfaction. I also acknowledge and understand that this Authorization has been collectively bargained for by the National Football League and the National Football League Players Association.

Signature: ___________________________ Date: __________________

**NOTICE:** You are entitled to a copy of this Authorization after you sign it. You have the right to revoke this Authorization any time by presenting a written request to National Invitational Camp, Inc., except to the extent that any Authorized Party has relied upon it. Revocation will not apply: 1) to information that has already been released in connection with this Authorization, 2) during a contestability period under applicable law, or 3) if the Authorization was obtained as a condition of obtaining insurance coverage. We may not condition treatment, payment, enrollment, or eligibility for benefits on your execution of this Authorization, except for the purpose of creating protected health information for disclosure to a third party on provision of Authorization. Information disclosed pursuant to this Authorization may be re-disclosed by the recipient(s) and no longer protected by certain federal or state privacy laws or regulations. Information disclosed pursuant to this Authorization may include records created by a healthcare provider or mental healthcare provider other than the disclosing party, unless access to such PHI has been restricted as permitted under HIPAA or other federal or state law, or unless such provider has expressly prohibited such re-disclosure.

Revised: February 2015
NATIONAL INVITATIONAL CAMP, INC.

AUTHORIZATION FOR RELEASE & DISCLOSURE
OF MEDICAL & MENTAL HEALTH RECORDS

Player Name: ___________________________ Date of Birth: ____________

School Name: __________________________

1. Persons/Entities Authorized to Release and Disclose Information. I hereby authorize, empower, request, and direct all healthcare providers, physicians, hospitals, mental health providers, counselors, therapists, clinics, schools, universities, colleges, student health services, dispensaries, sanatoriums, any other agencies, NFL Clubs, professional football teams, athletic trainers, all other amateur or professional teams or organizations, facilities, and/or entities that may possess my medical records, my medical information and/or my protected health information (“PHI”) (as defined under the Health Insurance Portability and Accountability Act, as amended, and the regulations thereunder (“HIPAA”)), altogether, my “Health Information”: (1) to release, disclose, and to make these records and other Health Information freely available to the persons and entities identified on this Authorization as the Authorized Parties; and (2) to discuss the contents of these records and other Health Information with the Authorized Parties and their representatives.

2. Persons/Entities Authorized to Receive and Use the Information. I hereby authorize, empower, and give permission to the following persons and/or entities and their representatives to receive, inspect, copy, obtain copies, examine, and/or use of any and all medical records and other Health Information described in this Authorization. These persons and entities will be referred to as the “Authorized Parties”:

   National Football Scouting, Inc., the National Football League and each of its member Clubs, as now existing or at any time in the future, the National Football League Drug Advisers, National Invitational Camp, Inc., the advisors to the National Football League’s Policy and Program on Substances of Abuse, the advisors to the National Football League’s Policy on Anabolic Steroids and Related Substances, respective representatives, agents, and/or employees, owners, officers,
servants, staff members, and contractors, any NFL Club medical staff members, team physicians, athletic training staff members, as well as any outside or third-party physicians, physician groups, hospitals, clinics, laboratories, consulting physicians, specialists, and/or healthcare professionals engaged by National Football Scouting, Inc., National Invitational Camp, Inc., the NFL or NFL Clubs, and any present and future electronic medical record vendors used by the NFL or NFL Clubs, including, but not limited to, eClinicalWorks, Inc., Intelemage, LLC, Infinitt, Inc., and/or Surescripts.

3. **Description of the Information to be Released and Disclosed.** I hereby authorize, empower, direct, and give permission for the following Health Information to be released and disclosed to the Authorized Parties:

My entire health or medical record and Health Information about me relating to any injury, sickness, disease, mental health condition, physical condition, medical history, medical or clinical status, diagnosis, treatment or prognosis from any source, including without limitation all written and/or electronic information or data, clinical notes, progress notes, discharge summaries, lab results, pathology reports, operative reports, consultations, physicals, physicians’ records, athletic trainers’ records, diagnoses, findings, treatments, history and prognoses, test results, laboratory reports, x-rays, MRI, and/or imaging results, outpatient notes, physical therapy records, occupational therapy records, prescriptions, and any and all other information pertaining to my past, present, or future medical condition, diagnosis, treatment, history, and prognosis. This Authorization applies to any and all Health Information, including medical records and other Health Information which the Persons/Entities Authorized to Release and Disclose Information may have received from another provider, unless access to such Health Information has been restricted as permitted under HIPAA or that provider has expressly prohibited re-disclosure.

This Authorization expressly includes all records and other Health Information relating to any mental health treatment, therapy, and/or counseling, but expressly excludes psychotherapy notes.
4. **Purpose of the Disclosure.** For purposes relating only to my actual or potential employment in the National Football League including the provision of healthcare, evaluation, consultation, treatment, therapy, and related services, which purposes are limited to reviewing, discussing, transmitting, disclosing, sharing, and/or using my Health Information: (a) between and among any of the Authorized Parties; (b) with any of my healthcare providers and/or mental health providers; (c) for employment-related injury reports; (d) for the activities of the National Football League Drug Advisors, the advisors to the National Football League’s Policy and Program on Substances of Abuse, and/or the advisors to the National Football League’s Policy on Anabolic Steroids and Related Substances, specifically limited to due diligence and audit activities, investigations of possible violations of the Policies or eligibility for a “therapeutic-use” exception under either Policy; (e) for ophthalmic examinations, consultations or treatment; and/or (f) with respect to disclosure to the National Football League, this authorization shall not be used by the NFL or its member Clubs to obtain documents, evidence, or material for purposes of litigation, grievances, or any dispute with the National Football League or its member clubs, except as contemplated by the August 4, 2011 Collective Bargaining Agreement (CBA), and as is necessary for the NFL and its member Clubs to fulfill their obligations under the CBA.

5. **Expiration Date.** This Authorization will expire two (2) years from the date of signature below.

6. **Photocopy.** A photostatic copy of this Authorization shall be considered as effective and valid as the original.

7. **Signature.** By my signature below, I acknowledge that I have read this Authorization, understand my rights as described herein, understand that I am allowing medical and mental healthcare providers to disclose my Health Information, and have had any questions answered to my satisfaction. I expressly and voluntarily authorize the release, disclosure, and use of my Health Information as described in this Authorization. I also acknowledge and understand that: this Authorization has been collectively bargained for by the National Football League and the National Football League Players Associations.

__________________________  ______________________________
Signature                        Date

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If a personal representative signs this Authorization on behalf of the Player, complete the following:

Personal Representative's Name: ____________________________________________

Relationship to Individual: ____________________________________________

NOTICE: You are entitled to a copy of this Authorization after you sign it. You have the right to revoke this Authorization any time by presenting a written request to the Club’s Head Athletic Trainer or his designee, except to the extent that any Authorized Party has relied upon it. Revocation will not apply: 1) to information that has already been released in connection with this Authorization, 2) during a contestability period under applicable law, or 3) if the Authorization was obtained as a condition of obtaining insurance coverage. We may not condition treatment, payment, enrollment or eligibility for benefits on your execution of this authorization, except for the purpose of creating protected health information for disclosure to a third party on provision of Authorization. Information disclosed pursuant to this Authorization may be re-disclosed by the recipient(s) and no longer protected by federal privacy laws or regulations. Information disclosed pursuant to this Authorization may include records created by a healthcare provider or mental healthcare provider other than the disclosing party, unless access to such PHI has been restricted as permitted under HIPAA or such provider has expressly prohibited such re-disclosure.