

Comparing Health-Related Policies & Practices in Sports: The NFL and Other Professional Leagues

Chapter 4

Christopher R. Deubert I. Glenn Cohen Holly Fernandez Lynch

Petrie-Flom Center for Health Law Policy, Biotechnology, and Bioethics at Harvard Law School

Drug and Performance-Enhancing Substance Policies

This Chapter summarizes the policies of each of the leagues concerning performance-enhancing substances ("PES") and drugs of abuse. As explained below, the leagues differ at times in their categorizations and treatments of different drugs and substances. Where appropriate, we will separate our analysis of the leagues' policies by PES and drugs of abuse, but will collectively refer to the policies as the leagues' "drug policies."

Before analyzing the leagues' drug policies, there are a few concepts and issues that need to be discussed, including what is meant by a "PES" and a "drug of abuse"; the unique case of marijuana; the purpose for the drug policies; therapeutic use exemptions; and, the role of unions in drug policies.



1) MEANINGS OF PES AND DRUGS OF ABUSE

The leagues generally do not provide an overarching definition for PES but instead ban a long list of substances that have the potential to enhance a player's performance in ways that the league, sports community, and/or medical community has determined to be unfair, unnatural, and/or unsafe.¹ As will be shown below, PES are also sometimes referred to as "performance-enhancing drugs" ("PEDs"). This term is slightly outdated as the term PES now better captures a wider variety of substances that athletes might try to use to enhance their performance.

Drugs of abuse is a term generally used by the leagues in reference to illegal substances that do not have the potential to enhance a player's performance and which present serious health concerns. For example, MLB defines "drugs of abuse" to include marijuana, synthetic marijuana, cocaine, LSD, opiates, MDMA, GHB, and PCP.² Similarly, the NFL defines "substances of abuse" as all illegal drugs, including but not limited to, marijuana, cocaine, opiates, MDMA, and PCP.³ Legal substances, including alcohol and prescription medications, can also fall within the purview of the leagues' drugs of abuse policies if abused, as will be discussed below.

Finally, we use the terms "substance" and "drug" interchangeably. While they are not exactly analogous terms, the terms are often used interchangeably in the context of professional sports and thus serve our purposes here.

2) MARIJUANA

Before we get into the details of the various policies it is worthwhile to discuss the special case of marijuana, which we also generally include in the category of drugs of abuse. Marijuana is banned under federal law and is listed as a Schedule I controlled substance under the Controlled Substances Act, thus classifying it as a substance which, according to the Act, "has a high potential for abuse" and "has no currently accepted medical use[.]"⁴ Nevertheless, as of February 2017, 29 states have approved marijuana for medical use, and seven states (Alaska, Colorado, Massachusetts, Maine, Nevada, Oregon, and Washington) and the District of Columbia have approved it for recreational use in certain amounts.^{5,a} Moreover, there is a robust debate about what, if any, are the health and social consequences of marijuana use.⁶ Thus, the argument exists that marijuana should be treated differently from other "drugs of abuse."

Some of the leagues have explicitly recognized the uniqueness of marijuana. As will be shown below, the NFL and NBA treat marijuana differently, and the NBA *does not* classify marijuana as a drug of abuse. Moreover, some believe marijuana use is common among NFL players to help manage pain.⁷ Amidst at least some evidence that marijuana can be an effective pain management tool,⁸ in 2016, the NFLPA announced that it would study the issue.⁹ Nevertheless, the NFL has insisted that the legalization of marijuana in certain states (including those that are home to NFL clubs), does not change the NFL's position—a policy banning marijuana.¹⁰ However, the NFL has stated that it is willing to consider medically appropriate uses of marijuana, such as for pain management and treatment of concussions, if recommended by medical experts.¹¹

3) PURPOSE OF DRUG POLICIES

The case of marijuana raises the question about why certain drugs are banned, under either a PES or drugs of abuse policy. A list of reasons why specific drugs might be banned includes: (1) the drugs are associated with negative health consequences; (2) the drugs are illegal; and/or, (3) the drugs provide the player with an unfair competitive advantage.^b

Many drugs meet one or more of these criteria. The criteria most closely related with the particular drug generally determine whether the drug is banned under a PES policy

a Nineteen sports clubs play in these states and the District of Columbia: Denver Broncos (NFL); Colorado Rockies (MLB); Denver Nuggets (NBA); Colorado Avalanche (NHL); Colorado Rapids (MLS); New England Patriots (NFL); Boston Red Sox (MLB); Boston Cettics (NBA); Boston Bruins (NHL); New England Revolution (MLS); Portland Trail Blazers (NBA); Portland Timbers (MLS); Seattle Seahawks (NFL); Seattle Mariners (MLB); Seattle Sounders FC (MLS); Washington Nationals (MLB); Washington Wizards (NBA); Washington Capitals (NHL); and, D.C. United (MLS). The Washington football club is of course associated with Washington, D.C. but practices in Virginia and plays in Maryland.

b In addition the reasons why certain drugs are banned, many would also likely add that the leagues regulate drugs to: (1) protect clubs' investments in the players; and, (2) to avoid negative publicity that results when players suffer adverse health or legal consequences associated with drug use. See. e.a., Lee A. Linderman, A Congressional Carve Out: The Necessity for Uniform Application of Professional Sports Leagues' Performance-Enhancing Drug Policies, 84 S. Cal. L. Rev. 751, 772 (2011) ("Sports leagues have an obvious interest in preventing their athletes from severely damaging their own bodies through PED use. Leagues do not want their players-stars or otherwise-destroying their own bodies because such actions would bring negative publicity to the sport and force teams to deal with losing players to unnatural injuries."); Mark M. Rabuano, An Examination of Drug-Testing as a Mandatory Subject of Collective Bargaining in Major League Baseball, 4 U. Pa. J. Lab. & Emp. L. 439, 458 (2002) ("Within the League, the management-employer has a legitimate interest in controlling drug use to protect its investment and the job performance of its employees. Because the profitability of MLB is tied to the success of players and fan support, the preservation of League integrity through drug-testing is an issue that should thus be reserved for managerial prerogative.")

or a drugs of abuse policy. Drugs that provide an unfair competitive advantage would generally be those classified as a PES while illegal drugs would generally be considered drugs of abuse. Nevertheless, many PES are also illegal (or obtainable only with a prescription) and some illegal drugs of abuse can provide a competitive advantage (such as stimulants). Our analysis is focused on the health consequences of drug use rather than competitive advantage issues.

Finally, the health consequences of many of the drugs are a constant subject of debate and ongoing scientific assessment. Whether the positive purposes and effects of certain drugs sufficiently outweigh the negative consequences is a medical determination and beyond the scope of this Report, but this question does relate to the purpose of therapeutic use exemptions, an issue to which we now turn.

4) THERAPEUTIC USE EXEMPTIONS

Some prohibited substances might be appropriate or necessary for the treatment of specific medical conditions. Consequently, sports leagues generally permit what are known as therapeutic use exemptions ("TUEs"), that permit the player to use a banned substance without violating a drug policy. A good example of a TUE is the case of American Olympic sailor Kevin Hall. As a result of cancer, Hall needed testosterone injections to maintain normal levels of the hormone.¹² Hall received a TUE to take testosterone (normally a banned substance) so that he could participate in the 2004 Olympics.^{13,c}

The availability of TUEs also raises the prospect of players seeking them more for performance-enhancing purposes as opposed to medical. In 2006, MLB began to test for stimulants, a banned substance but one nonetheless long considered to be commonly used in MLB.¹⁴ In 2006, 28 players obtained a TUE for stimulants used to treat attention-deficit disorder ("ADD"), such as Adderall or Ritalin.¹⁵ The next year, 103 players obtained TUEs for ADD drugs, raising concerns that the TUE process was being abused.¹⁶ Nevertheless, the prevalence of TUEs for ADD drugs has remained fairly consistent: 119 in 2013; 112 in 2014;¹⁷ 111

in 2015,¹⁸ and 105 in 2016.¹⁹ Approximately 1,375 players played in a MLB regular season game in 2016.²⁰ Thus, an estimated 7.6% of them had a TUE for ADD drugs.^d

5) ROLE OF UNIONS

Each of the leagues' drug policies is the result of collective bargaining with the leagues' respective players unions. Indeed, drug testing is generally considered a mandatory subject of bargaining between employers and a union pursuant to the National Labor Relations Act.²¹ The union will look to protect the players' rights and interests in all respects when negotiating the drug policy, but what that means is not always clear.

Players have heterogeneous views concerning the most desirable drug policy. When it comes to drugs of abuse, some players likely do not want any testing out of concerns for their privacy or so that they can engage in drug-related behavior off of the field. Other players might be concerned with the adverse health and legal consequences associated with drugs of abuse and instead want robust testing. Similarly, some players intentionally take PES to try to improve their performance and thus would like to see minimal testing and discipline for their use. Conversely, some players believe that PES undermine the integrity and fairness of the game and should be subject to frequent testing and harsh punishment.

Regardless of the players' and unions' balancing of these views, the unions always work to protect a player's legal and procedural rights. A drug test can be an invasive and personal process. Drug tests are conducted via the collection of either urine or blood. Urine specimen collection requires a player to be naked from his knees up and then urinate into a cup with the specimen collector standing directly in front of him.²² Blood tests require blood to be withdrawn. Consequently, players and their unions generally seek to minimize the number of times players have to go through these uncomfortable experiences.

Additionally, the unions want to ensure that the drug tests are reliable in that testing procedures accurately determine whether a player has failed a drug test. In the 2011 CBA, the NFL and NFLPA agreed that the NFL would begin

c It is important to understand that if a player does not obtain a TUE before beginning use of the banned substance he is likely to be disciplined, regardless of whether the drug has been prescribed. NFL player Robert Mathis was suspended for the first four games of the 2014 season after testing positive for a banned substance that was in a fertility drug Mathis had been prescribed to help Mathis and his wife conceive a child. Darin Gantt, *Robert Mathis balancing professional guilt and personal joy*, Pro-FootballTalk (Jul. 31, 2014), http://profootballtalk.nbcsports.com/2014/07/31/robert -mathis-balancing-professional-guilt-and-personal-joy/, *archived at* http://perma.cc/C8DS-7VCA. Mathis failed to obtain a TUE for the drug and was thus subject to discipline. Mike Florio, *NFL responds to agent's statement regarding Robert Mathis*, *archived at* http://perma.cc/7JUH-ZS9H.

d It is hard to know how this usage compares to the general population. Our research did not reveal usage rates for a comparable control population. However, according to a national survey on drug use by the University of Michigan, in 2015, approximately 1.6% of people aged 19-30 reported using Ritalin, an ADD medication. Additionally, approximately 6.9% of people aged 19-30 reported using Adderall, also an ADD medication. However, the relationship between usage and prescriptions was not provided. See Lloyd D. Johnston et al., Monitoring the Future national survey results on drug use, 1975–2015: Volume 2, College students and adults ages 19–55 111 (2015), available at http://monitoringthefuture.org/pubs.html#monographs.

to test for human growth hormone ("hGH"), with the specifics to be worked out at a later date. Nevertheless, it took nearly three years for the NFL and NFLPA to agree on the procedures of hGH testing due, in part, to concerns about the scientific reliability of the blood tests available at the time.²³

Another procedural concern of the unions is "nonanalytical positives," *i.e.*, those situations where the player has not tested positive for a banned substance but has violated a drug policy in some other way, such as by possessing the drug, engaging in illegal conduct, manipulating the test, or being accused of having used a banned substance through the testimony of others. Without clear proof that a player has taken a banned substance (such as through a failed drug test), the unions want to ensure that players are not unfairly punished for circumstantial evidence.

Finally, unions want to ensure that players receive a fair appeals process, typically understood to include the right to challenge the validity of the alleged drug policy violation before a neutral arbitrator. The appeals process and a player's legal rights thereunder are important issues for players. Nevertheless, they are legally complicated and more tangential to player health than is our focus in this Report. Consequently, we do not discuss them here.

* * *

With this background, we turn to our analysis of the leagues' drug policies. Specifically, for each of the leagues, we will describe: (1) the substances prohibited; (2) the types of tests and prohibited conduct; (3) the number of tests; (4) the administration of the policies; (5) therapeutic use; (6) discipline; (7) treatment; and, (8) confidentiality.

A drug test can be an invasive and personal process. Urine specimen collection requires a player to be naked from his knees up and then urinate into a cup with the specimen collector standing directly in front of him.

A) The NFL's Drug Policies

The NFL has two separate policies: (1) the Policy on Performance-Enhancing Substances ("PES Policy"); and, (2) the Policy and Program on Substances of Abuse ("Substance Abuse Policy"). Both policies were most recently amended in 2016. We will describe both policies for each issue of interest.

1) SUBSTANCES PROHIBITED a) PES Policy

The PES Policy prohibits specifically listed substances in the following categories: (1) anabolic agents, including anabolic/androgenic steroids, hormones (including hGH), Beta-2-agonists, anti-estrogenic agents, and selective androgen receptor modulators ("SARMs"); (2) masking agents, including diuretics, epitestosterone, and probenecid; and (3) stimulants.²⁴ Doping methods, including enhancement of oxygen transfer, chemical and physical manipulation, and gene doping are also all strictly prohibited.²⁵ The NFL and NFLPA may mutually agree to modify the prohibited substances list included in the PES Policy.²⁶

b) Substance Abuse Policy

The Substance Abuse Policy prohibits players "from the illegal use, possession, or distribution of drugs, including but not limited to cocaine; marijuana;^e opiates and opioids; methylenedioxymethamphetamine (MDMA); and phencyclidine (PCP)," as well as the "abuse of prescription drugs, over-the-counter drugs, and alcohol."²⁷ Other substances not enumerated may be prohibited if included in a treatment plan required by the Substance Abuse Policy (explained further below).²⁸

An important change concerning certain stimulants was made to the PES Policy and Substance Abuse Policy in 2014. Prior to 2014, several players tested positive for banned stimulants during the off-season.²⁹ Stimulants were banned under the PES Policy but provided the players no competitive advantage during the off-season. Instead, the players were using the stimulants as recreational drugs.³⁰ Under the revised PES Policy, if a player tests positive for a

e Synthetic marijuana was banned in 2016. Mike Florio, NFL, NFLPA agree on revised drug, PED policies, ProFootballTalk (Oct. 9, 2016, 8:40 AM), http://profootballtalk .nbcsports.com/2016/10/09/nfl-nflpa-agree-on-revised-drug-ped-policies/, archived at https://perma.cc/4BVM-WYMT.

stimulant during the off-season, he is deemed to have violated the Substance Abuse Policy and not the PES Policy.³¹ The change is dramatic in terms of the discipline to be imposed: four games for a first violation of the PES Policy versus no punishment under the Substance Abuse Policy, as will be explained below.

2) TYPES OF TESTS AND PROHIBITED CONDUCT

a) PES Policy

The PES Policy uses urine and blood tests.³²

A test is "positive" under the PES Policy if the test result reveals the presence of a prohibited substance in the player's sample "at the level required by the testing protocols."33 Players are also subject to punishment under the PES Policy for: (1) violations of law (demonstrated by convictions or player admissions) relating to the use, possession, acquisition, sale, or distribution of steroids, growth hormones, stimulants, or related substances, or conspiring to do so;³⁴ (2) using, possessing, or distributing PES as found through credible evidence;³⁵ (3) attempting to substitute, dilute, or adulterate a specimen;³⁶ and, (4) manipulating a test result.³⁷ While violations of law, non-analytical positives, attempts to substitute, dilute, or adulterate specimens, and test result manipulations are not expressly included in the definition of a "positive test," they are subject to discipline as will be explained below.

b) Substance Abuse Policy

The Substance Abuse Policy uses urine tests only.³⁸

For the Substance Abuse Policy, "[t]ests . . . will be deemed positive if they are confirmed by laboratory analysis at the identified urine concentration levels."³⁹ A player who fails to cooperate fully in the testing process or who attempts to substitute or adulterate a specimen, alter a test result, or engage in doping methods will be treated as if he produced a positive test.⁴⁰ Players who fail to appear for testing are subject to discipline, but not on the same schedule as those whose specimens result in positive tests.⁴¹

A player also violates the Substance Abuse Policy if he commits a violation of law involving alcohol or drugs of abuse.⁴² In addition to a conviction, a violation of law will also be found where the player enters into a diversionary program, deferred adjudication, disposition of supervision, or similar arrangement, including *nolo contendere* pleas.⁴³

3) NUMBER OF TESTS a) PES Policy

Under the PES Policy, free agent rookies and veterans are subject to pre-employment urine tests, including testing at the NFL Combine.⁴⁴ All players are also subject to at least one annual urine test for prohibited substances to occur at training camp or whenever a player reports as part of the player's pre-season physical.⁴⁵ Additionally, ten players per club are randomly selected for urine testing each week during the pre-season, regular season, and postseason.⁴⁶ During the off-season, players under contract who are not otherwise subject to reasonable cause testing (discussed below) may be tested at the discretion of the Independent Administrator (subject to a maximum of six combined urine and blood tests).⁴⁷

The PES Policy also allows for blood testing under the following circumstances: (1) 20% of every club's roster will receive blood testing once annually; (2) each week during the pre-season, regular season, and postseason, five players from eight randomly selected clubs who are selected for urine testing will also receive blood testing;^f (3) 10% of every club's roster will receive blood testing in the off-season; and, (4) pre-employment blood tests may be administered to free agent rookies and veterans, including 30 players randomly selected at the Combine who will undergo urine and blood testing.⁴⁸ The Independent Administrator randomly selects the players to be tested.

Finally, the PES Policy allows for reasonable cause testing for players who have previously tested positive for PES or for whom there is sufficient credible evidence⁴⁹ of prior PES involvement (up to two football seasons prior to the player's applicable college draft).⁵⁰ In no circumstance may a player undergo more than 24 combined urine and/or blood tests per year.⁵¹

b) Substance Abuse Policy

Under the Substance Abuse Policy, players are subject to testing on the following terms: (1) a rookie or veteran player not under contract may be subject to a preemployment test if that player was not under contract to his last club on the date of its last game of the preceding season and the player has not had a test in the four-month period prior (excluding an NFL Combine test); (2) drafteligible players are subject to pre-employment tests during the NFL Combine; (3) all players under contract are subject to one annual test during the off-season; (4) all players

f In other words, for 8 of the NFL's 32 clubs, half of the ten players randomly selected for urine testing in any given week are also subject to blood testing.

in the Intervention Program⁵² will be required to provide specimens when determined by the Medical Advisor (discussed below in Section 4: Administration); and, (5) a club and player may agree that the player will submit to unannounced testing during the term of his contract if the club has a reasonable basis for such testing.⁵³

For players already in the NFL, it is fairly easy not to run afoul of the Substance Abuse Policy. Players are only tested for drugs of abuse during an off-season window that begins in April and ends in August.⁵⁴ So long as players do not use drugs of abuse during this time frame (or sufficiently in advance of this time frame), they will not test positive under the Substance Abuse Policy and can otherwise use drugs of abuse without detection or consequences under the Policy during the remainder of the year.⁵⁵ Moreover, the NFLPA issues a reminder about the drug testing dates to all players approximately a month before the drug testing window begins.⁵⁶ Because players should be able to avoid problems with the Substance Abuse Policy fairly easily, the off-season test is referred to even by NFL medical personnel as "an intelligence test."⁵⁷

4) **ADMINISTRATION** a) **PES Policy**

The Independent Administrator on Performance-Enhancing Substances, jointly selected by the NFL and the NFLPA, administers the PES Policy.⁵⁸ The current Independent Administrator is Dr. John Lombardo, an expert in PES.⁵⁹ Subject to limitations set in the PES Policy, the Independent Administrator is vested with the discretion to make determinations concerning, among other things, the method by which players will be subjected to testing each week, the selection of players to be tested each week, the number and frequency of reasonable cause and off-season tests to administer, the scheduling of medical evaluations associated with the use of prohibited substances, review and approval of therapeutic use exemptions, and finding and certifying violations for disciplinary action.⁶⁰

The PES Policy also employs a chief forensic toxicologist jointly selected by the NFL and NFLPA. The toxicologist, among other things, audits the operation of testing laboratories, reviews and certifies lab results, and provides advice to the NFL and NFLPA on anti-doping. The PES Policy also includes a jointly selected collection vendor to implement a training and certification process for all persons involved in the collection of samples under the PES Policy.⁶¹

b) Substance Abuse Policy

The NFL and NFLPA jointly select a Medical Director, who is responsible for developing and implementing all aspects of the Substance Abuse Policy that relate to the treatment of players.⁶² The NFL and NFLPA also jointly select a Medical Advisor, who has the responsibility of serving as medical review officer and overseeing selection and testing under the Substance Abuse Policy's treatment program, known as the Intervention Program and discussed in detail below.⁶³ Additional administrators for the Substance Abuse Policy include treating clinicians,⁶⁴ team substance abuse physicians,⁶⁵ a chief forensic toxicologist,⁶⁶ collection vendor(s),⁶⁷ and club physicians.⁶⁸

5) THERAPEUTIC USE

Therapeutic use exceptions ("TUEs") are available for players under both the PES Policy and the Substance Abuse Policy by applying to the Independent Administrator of the PES Policy and the Medical Advisor for the Substance Abuse Policy.⁶⁹ "The TUE application should be filled out and submitted by the player's treating physician and should include all pertinent medical records documenting the diagnosis."⁷⁰ The NFL applies the following guidelines to all TUE requests:

- The medication must be necessary and indicated for treatment of the specific medical problem for which it has been requested;
- Acceptable alternative treatments with medications that are not prohibited were attempted but failed, or reasons for not prescribing these alternative treatments have been presented;
- Appropriate evaluation has been completed and all medical records documenting the diagnosis have been submitted for review; and,
- 4. The applicant may not begin use of the prohibited substance until after the TUE is granted.⁷¹

6) TREATMENT

Some of the sports leagues' drug policies provide for the player to undergo treatment concerning his drug use in lieu of or in addition to punishment. We thus analyze that issue across the leagues, beginning here with the NFL.

a) PES Policy

The PES Policy does not provide for any treatment. Nevertheless, treatment might be available through the player's club-funded health insurance policy.

b) Substance Abuse Policy

According to the Substance Abuse Policy, "[t]he cornerstone of th[e] Policy is the Intervention Program."⁷² "Under the Intervention Program, Players are tested, evaluated, treated, and monitored for substance abuse."⁷³ The Intervention Program consists of three possible stages of treatment. If the player complies with his treatment and does not fail any tests, he will be discharged from the Intervention Program. However, if the player does not comply or fails drug tests, he will be advanced into more aggressive stages of treatment and be subject to increasing discipline.

A player can enter the Intervention Program in three ways: (1) a positive test result; (2) "[b]ehavior (including but not limited to an arrest or conduct related to an alleged misuse of Substances of Abuse occurring up to two (2) football seasons prior to the Player's applicable scouting combine) which, in the judgment of the Medical Director, exhibits physical, behavioral, or psychological signs or symptoms of misuse of Substances of Abuse"; and, (3) "Self-Referral: Personal notification to the Medical Director by a Player of his desire voluntarily to enter Stage One of the Intervention Program prior to his being notified to provide a specimen leading to a Positive Test Result, and prior to behavior of the type described above becoming known to the Medical Director from a source other than the Player."⁷⁴

Once in the Intervention Program, the players are referred to the appropriate clinical professionals to develop a treatment plan for the player.⁷⁵ The Medical Director must then

approve the treatment plan.⁷⁶ Additionally, once in the Intervention Program, the player is subject to additional testing at the discretion of the Medical Director.⁷⁷

If a player complies with his treatment plan, he can be discharged from the Intervention Program in as little as 90 days.⁷⁸ If the Medical Director believes the player needs additional treatment or if the player fails to comply with his treatment plan, such as by failing a test, the player will advance to Stage Two of the Intervention Program.⁷⁹ In Stage Two, a player can be subject to as many as ten unannounced drug tests per month.⁸⁰

If a player complies with his treatment plan in Stage Two, he can be discharged from the Intervention Program in as little as 12 months.⁸¹ However, again, if the Medical Director believes the player needs additional treatment or if the player fails to comply with his treatment plan, such as by failing a test, the player will advance to Stage Three of the Intervention Program and be subject to additional treatment and evaluation.⁸²

A player's path through the Intervention Program is detailed further in Figure 4-A on page 143.

7) DISCIPLINE⁹ a) PES Policy

On the first violation, the PES Policy provides for different punishment based on the type of violation. All violations are treated similarly in the second and third instances, as illustrated in Table 4-A below.⁸³

g In all of the leagues, suspensions are without pay except in rare circumstances.

Table 4-A:

NFL PES Policy Discipline Schedule

Type of Violation	First Violation	Second Violation	Third Violation
Violation of Law or Sufficient Credible Evidence ⁸⁴	6 games	10 games	2 years
Positive Test (Diuretic or Masking Agent)	2 games	10 games	2 years
Positive Test (Stimulant or Anabolic Agent)	4 games	10 games	2 years
Positive Test (Prohibited Substance Plus Diuretic, Masking Agent, Attempt to Adulterate, or Attempt to Manipulate)	6 games	10 games	2 years

In 2016, approximately 19 NFL players were suspended for violating the PES Policy,⁸⁵ an increase from 13 players in 2015, and 16 players in 2014.⁸⁶

In addition to the fines and suspensions described above, players potentially face contractual consequences for violating the PES Policy. When a player has violated the PES Policy, his club is entitled to proportional forfeiture of bonuses previously paid.⁸⁷ For example, if a player received a \$10 million signing bonus for a five-year contract, and the player then fails a PES test after the second season, the player could be required to return \$6 million of the signing bonus to the club.⁸⁸ Similarly, if a player is entitled to have his Paragraph 5 (*i.e.*, base) salary guaranteed in his second season, but fails a PES test between the first and second seasons, the contract might contain a clause permitting the club to void the guarantee in the second season.⁸⁹ Because NFL compensation is generally not guaranteed, these financial punishments can be more harmful to a player than the suspensions listed above.

b) Substance Abuse Policy

Players are not disciplined for initial positive test results under the Substance Abuse Policy. Instead, players are entered into the Intervention Program, discussed above. Provided players comply with their treatment programs under the Intervention Program, they will not be disciplined.

However, players who fail to comply with the Intervention Program are subject to increasing levels of discipline. Figure 4-A on the next page demonstrates a player's potential path and discipline through the Intervention Program.







Additionally, a player who voluntarily enters the Intervention Program cannot be disciplined so long as he complies with his treatment plan.⁹⁰ In reality, this safe harbor provision is limited by the general tenuousness of NFL players' contracts and careers, which are often terminated for a variety of reasons. Because NFL players will look to avoid anything that sheds negative light on them—including voluntarily entering the Intervention Program—it is questionable how often players ever take advantage of the Substance Abuse Policy's safe harbor provision.

In 2016, approximately 26 players were suspended for violating the Substance Abuse Policy,⁹¹ a decrease from 29 players in 2015, but more than the 23 players suspended in 2014.⁹² Many more players were likely fined, but these statistics are not publicly available pursuant to the Policy's confidentiality provisions, discussed next.

Players are also subject to discipline for violations of law involving alcohol or drugs of abuse.

A player's first offense involving alcohol will generally result in a two-game suspension.⁹³ If there are "aggravating circumstances, including but not limited to felonious conduct, extreme intoxication (BAC of .15% or more), property damage or serious injury or death to the Player or a third party, and/or if the Player has had prior drug or alcohol-related misconduct, increased discipline may be imposed."⁹⁴ A second offense involving alcohol results in an eight-game suspension.⁹⁵

A player who voluntarily enters the Intervention Program cannot be disciplined so long as he complies with his treatment plan. In reality, this safe harbor provision is limited by the general tenuousness of NFL players' contracts and careers. A player's first offense involving drugs of abuse will generally result in a four-game suspension.⁹⁶ Discipline may be increased if there are aggravating circumstances similar to those discussed above.⁹⁷ A second offense involving drugs of abuse results in a six- to ten-game suspension.⁹⁸

Finally, players who violate the Substance Abuse Policy are subject to the same potential contractual penalties as those discussed above arising out of violations of the PES Policy.

8) CONFIDENTIALITY

Both the PES Policy and Substance Abuse Policy mandate that players, clubs, the NFL, NFLPA, player agents, and all persons involved in administering the polices protect the confidentiality of matters covered by the policies.⁹⁹

a) PES Policy

Under the PES Policy, "public disclosure, directly or indirectly, of information concerning positive tests, appeals or other violations of th[e] [PES] Policy is not permitted."¹⁰⁰ The PES Policy allows the NFL to publicly announce or acknowledge disciplinary action against a player when a suspension is upheld by an arbitrator and to publicly disclose information relating to the discipline of a player to correct inaccurate public claims made by the player or his representatives.¹⁰¹ Finally, under the PES Policy, a player, club, or club employee is subject to a \$500,000 fine for breaching the confidentiality provisions.¹⁰²

b) Substance Abuse Policy

The Substance Abuse Policy requires confidentiality relating "to the history, diagnosis, treatment, prognosis, test results, or the fact of participation in the Intervention Program of any Player[.]"¹⁰³ The Substance Abuse Policy allows for disclosure under the same circumstances as the PES Policy and additionally allows for players to authorize or disclose information and allows the Medical Advisor or NFL to disclose to a club information about a player who the club is contemplating acquiring.¹⁰⁴ Finally, like the PES Policy, under the Substance Abuse Policy, a player, club, or club employee is subject to a \$500,000 fine for breaching the confidentiality provisions.¹⁰⁵

With this understanding of the NFL policies we are ready to compare them to what is in place for the other leagues.



B) MLB's Drug Policies

MLB and the MLBPA have agreed to the Joint Drug Prevention and Treatment Program ("Joint Program"). The Joint Program, last amended in December 2016, covers both PES and drugs of abuse. Where it is helpful, we will discuss the Joint Program's treatment of the different drugs separately.

1) SUBSTANCES PROHIBITED

The Joint Program prohibits the use, possession, sale, or distribution of four categories of substances: drugs of abuse,¹⁰⁶ PES,¹⁰⁷ stimulants,¹⁰⁸ and Dehydroepiandrosterone ("DHEA").¹⁰⁹ During the term of the Joint Program, MLB and the MLBPA may jointly agree to ban any additional substances.¹¹⁰ Additionally, if the federal government adds a substance to Schedule I, II, or III of the Code of Federal Regulations Schedule of Controlled Substances, then that substance is automatically added to the list of prohibited substances as a drug of abuse, PES, or stimulant.¹¹¹

However, MLB does not test for stimulants during the off-season. $^{112}\,$

2) TYPES OF TESTS AND PROHIBITED CONDUCT

Like the NFL, MLB uses urine tests for PES, stimulants, and DHEA,¹¹³ and blood tests for hGH.¹¹⁴

"[I]f any substance identified in the test results meets the levels set forth in the Collection Procedures and Testing Protocols of the Program," then that test shall be considered "positive."¹¹⁵ Additionally if a player refuses or, without good cause, fails to take a test, or engages in activity to prevent the collection of a specimen, then the player will be deemed to have failed a test.¹¹⁶ Likewise, a test will be considered positive if a player "attempts to substitute, dilute, mask or adulterate a specimen or in any other manner alter a test."¹¹⁷ Players may also be subject to disciplinary action, under a just cause standard, for "any . . . violation of [the Joint Program's prohibitions], including, but not limited to, non-analytical positives."¹¹⁸

3) NUMBER OF TESTS a) PES

Each player is tested for PES, stimulants, and DHEA upon reporting to spring training and receives at least one other unannounced test on a randomly selected date between the start of spring training and the final day of the postseason.¹¹⁹ In total, 4,800 unannounced tests for PES and stimulants are administered to randomly selected players during the season¹²⁰ and 1,550 unannounced, random tests for only PES and DHEA are administered during the off-season, in order to ensure that all players are subject to at least one random off-season test.¹²¹ Each player is also randomly tested for hGH once during spring training,¹²² and 900 random, unannounced blood tests for hGH are performed throughout the year.¹²³ There is no limit on the number of times an individual player may be tested for hGH.¹²⁴

During the 2016 season, MLB conducted 8,281 drug tests.¹²⁵ 6,634 of the tests were urine and 1,647 were blood.¹²⁶ There were 15 failed tests—12 for PES and three for stimulants.¹²⁷

Players are also potentially subject to just cause testing or, in the case of players who violate the Joint Program, additional follow-up testing. If the Commissioner or the MLBPA notifies the other that it has "reasonable cause" to believe that a player has "engaged in the use, possession, sale or distribution of a [PES or stimulant]" in the past year," then the player may be subject to a test within 48 hours of notification.¹²⁸ Players who test positive for PES are subject to three unannounced tests in the year after the positive test, and players who test positive for stimulants are subject to six unannounced tests in the year after the positive test.¹²⁹

b) Drugs of Abuse

Unlike in the NFL, MLB players are generally not required to undergo testing for drugs of abuse, unless the Commissioner or MLBPA presents the other with reasonable cause for testing.¹³⁰ If a player tests positive for a drug of abuse after undergoing reasonable cause testing, he is referred to the Treatment Board for an initial evaluation,¹³¹ after which the Treatment Board may develop a treatment program consisting of some combination of counseling, in- or outpatient treatment, and follow-up testing.¹³²

4) **ADMINISTRATION**

The Independent Program Administrator, jointly selected by the MLBPA and MLB, oversees the Joint Program.¹³³ The Independent Program Administrator administers and audits the Joint Program's testing regime and develops related educational programs.¹³⁴ Additionally, the Treatment Board consisting of two representatives (a lawyer and a physician) appointed by the MLBPA, two representatives (a lawyer and a physician) appointed by MLB, and a fifth neutral labor arbitrator—supervises the treatment of players who have or are suspected to have used drugs of abuse.¹³⁵

Of note, the Independent Program Administrator is responsible for publicly releasing a report by December 1, of each year that sets forth the number of tests conducted, the number of positive tests that resulted in discipline, the substances involved in the tests that resulted in discipline, the number of non-analytical positives that resulted in discipline, and the number of TUEs issued, broken down by the category of medication.¹³⁶

MLB's PES report is a commendable exercise in transparency. By disclosing its drug testing efforts and results and subjecting them to public scrutiny, MLB is demonstrating its commitment to the integrity of the game. While we believe the NFL should seriously consider releasing a similar report, such a report has minimal (if any) direct impact on player health and thus it is outside the scope of our concern here.

5) THERAPEUTIC USE

As in the NFL, a player with a medical condition that requires treatment by a substance prohibited by the Joint Program can apply to the Independent Program Administrator for a TUE.¹³⁷ The Independent Program Administrator determines whether or not to grant the TUE after consultation with members of the Medical Advisory Panel or outside specialists.¹³⁸

6) TREATMENT

a) PES

As with the NFL, the Joint Program does not provide for treatment in the case of PES use.

b) Drugs of Abuse

The Joint Program does provide for treatment in the case of drugs of abuse in a manner substantially similar to that of the NFL. Under the Joint Program, a player begins treatment for drugs of abuse if he has previously failed a drug test (as the result of reasonable cause testing), or "is otherwise found to have used or possessed" a drug of abuse.¹³⁹ The player's treatment program is determined by the medical professionals on the Treatment Board, who may consult with other treating doctors or experts in the field.¹⁴⁰ The treatment program "may include any or all of the following: counseling, impatient treatment, outpatient treatment and follow-up testing."¹⁴¹ A player is subject to discipline for failing to cooperate with his treatment plan, as discussed below.

7) DISCIPLINE

Punishments for violations of the Joint Program depend on the category of prohibited substance involved, the nature of the offense, and the number of previous violations (if any). The rules are summarized in Table 4-B on the next page:



Table 4-B: MLB Joint Program Discipline Schedule

Type of Violation	First Violation	Second Violation	Third Violation	Fourth Violation
PES Use ¹⁴²	80 games	162 games	Permanent suspension; 162 games can apply for reinstatement after 2 years	
PES Sale or Distribution ¹⁴³	80-100 games	162 games	Permanent suspension; can apply for reinstatement after 2 years	NA
Stimulant Use ¹⁴⁴	Follow-up testing	50 games	100 games	Permanent suspension
Stimulant-related Convictions ¹⁴⁵	25-50 games	50-100 games	Permanent suspension	NA
Stimulant Sale or Distribution ¹⁴⁶	60-90 games	2-year suspension	Permanent suspension	NA
DHEA Use ¹⁴⁷	Follow-up testing	25 games	80 games	Permanent suspension
DHEA-related Convictions ¹⁴⁸	25-50 games	50-100 games	Permanent suspension	NA
DHEA Sale or Distribution ¹⁴⁹	60-90 games	2-year suspension	Permanent suspension	NA
Failure to Comply with Treatment Program ¹⁵⁰	15-25 games	25-50 games	50-75 games	At least one year suspension ¹⁵¹
Drugs of Abuse Sale or Distribution ¹⁵²	60-90 games	2-year suspension	Permanent suspension	NA
Drugs of Abuse-related Convictions ¹⁵³	25-50 games	50-100 games	Permanent suspension	NA

DHEA is treated differently than other PES. "DHEA is a hormone that is naturally made by the human body. . . . Athletes and other people use DHEA to increase muscle mass, strength, and energy."¹⁵⁴ DHEA is legal¹⁵⁵ and can be purchased over the counter as a dietary supplement,¹⁵⁶ which might explain its differential treatment. Despite its legality, MLB, the NFL, NBA, NHL, NCAA, and the World

Anti-Doping Agency ("WADA")^h have all banned the use of DHEA. 157

It is unclear whether players who voluntarily refer themselves for treatment can be disciplined under the Joint Program. In reviewing a draft of this Report, MLB stated:

h WADA, established in 1999, is an international agency funded by sports organizations and governments with its principal focus on eliminating the use of PES in sports. WADA publishes annually a "Prohibited List" that lists prohibited substances. The WADA Code and the Prohibited List are the governing anti-doping documents of all Olympic sports organizations and most sports organizations worldwide.

If a Player comes forward and discloses to the Joint Treatment Board that he has substance use problem, he will be evaluated and prescribed a treatment program. If he remains compliant with his treatment program and the Treatment Board's recommendations, he will not be subject to discipline under the Joint Drug Program. This process is described in Section 4 of the Joint Drug Program.

Nevertheless, based on our reading of the Joint Program, while Section 4 does describe the evaluation and treatment provided to players, it does not say anything about a player not being subjected to discipline for voluntarily referring himself for treatment.

8) CONFIDENTIALITY

Like in the NFL, information about an MLB player's test results, testing history, and treatment program are generally confidential.¹⁵⁸ However, there are many exceptions to this rule. First, MLB and the MLBPA may, upon request, provide a Congressional committee with an anonymized summary of tests conducted under the Joint Program.¹⁵⁹ Second, MLB may inform a club that the club's player has been placed in a treatment program.¹⁶⁰ Third, a club may disclose a player's treatment history to a potential trade partner;¹⁶¹ MLB may publicly disclose that a player has been suspended for a specific number of days for violating the Joint Program or for refusing to take or tampering with a test.¹⁶² Fourth, MLB, in announcing the suspension of a player, can reveal the specific substance which caused the violation of the Joint Program.¹⁶³ Finally, both MLB and the MLBPA may disclose details of a player's testing history to correct inaccurate or misleading claims made by that player.164

Like in the NFL, information about an MLB player's test results, testing history, and treatment program are generally confidential. However, there are many exceptions to this rule.

C) The NBA's Drug Policies

The NBA and NBPA have agreed to the Anti-Drug Program. The Anti-Drug Program, last amended as part of the 2017 CBA, covers both PES and drugs of abuse. Where it is helpful, we will discuss the Anti-Drug Program's treatment of the different drugs separately.

1) SUBSTANCES PROHIBITED

Prohibited substances in the NBA fall into four categories: (1) drugs of abuse;ⁱ (2) marijuana and its by-products (including synthetic cannabinoids); (3) steroids, PES, and masking agents ("SPEDs");^j and, (4) diuretics.^k Additionally, any steroid or PES that is declared illegal¹ during the term of the CBA is automatically added to the list of prohibited substances, and either the NBA or NBPA can convene a meeting of the Prohibited Substances Committee to request that the Committee add a substance to the list of prohibited substances.¹⁶⁵

2) TYPES OF TESTS AND PROHIBITED CONDUCT

The NBA's Anti-Drug program includes both urine and blood testing.¹⁶⁶ Any test under the Anti-Drug program will be considered "positive" for a prohibited substance if: (1) for a test for a drug of abuse or marijuana, the test confirms levels of the prohibited substance meeting or exceeding the levels set forth in the CBA;¹⁶⁷ (2) for a test for a SPED, the test confirms levels of the SPED meeting or exceeding the levels set forth in the CBA;¹⁶⁸ (3) for a test for a diuretic, the test confirms any detectable level of a diuretic;¹⁶⁹ (4) a player refuses to submit to a test or fully cooperate with the testing process;¹⁷⁰ (5) a player fails to submit to a scheduled test without reasonable explanation;¹⁷¹ or, (6) a player attempts to substitute, dilute, or adulterate a specimen.¹⁷²

Additionally, even if a player has not failed a test, the NBA's Anti-Drug Program prohibits the "use, possession, or distribution" of prohibited substances.¹⁷³

k Exhibit I-2 to the CBA includes 24 banned diuretics.

Drugs of abuse include, among other substances, cocaine, LSD, methamphetamine, opiates, and PCP. 2017 NBA CBA, Ex. I-2.

j Exhibit I-2 to the CBA specifically lists out over 150 banned SPEDs. hGH is included among banned SPEDs.

I The 2017 NBA CBA does not specify whether the illegality of the steroid or PES refers to federal and/or state law. However, according to the NBA, in practice, the league is concerned with federal law.

3) NUMBER OF TESTS

A player is required to undergo random urine testing for prohibited substances at any time, without prior notice, no more than four times during each season and no more than two times during the off-season.¹⁷⁴ Players can also be blood tested a maximum of two times during the season and once in the off-season.¹⁷⁵ The NBA can conduct a maximum of 1,525 total random tests during the season and a maximum of 600 total random tests during the off-season.¹⁷⁶

Players are also subject to reasonable cause testing. If the NBA or NBPA has reasonable cause to believe that a player is engaged in the use, possession, or distribution of a prohibited substance, then that party may request a conference with the "Independent Expert," who will determine whether reasonable cause exists to test the player.¹⁷⁷ If reasonable cause exists, the player may be tested up to four times during the subsequent six-week period.¹⁷⁸

4) **ADMINISTRATION**

A jointly selected NBA/NBPA Medical Director oversees the NBA's Anti-Drug Program concerning drugs of abuse and marijuana.¹⁷⁹ A separate Medical Director is responsible for overseeing the SPED portion of the Anti-Drug Program.¹⁸⁰ Additionally, a jointly selected Independent Expert issues authorizations for reasonable cause testing.¹⁸¹ A five-member Prohibited Substance Committee, consisting of one NBA representative, one NBPA representative, and three jointly selected individuals, makes recommendations to the NBA and NBPA for changes to the list of Prohibited Substances, including laboratory analysis cutoff levels.¹⁸² Finally, the NBA's Grievance Arbitrator (who handles a variety of potential grievances under the CBA) is responsible for resolving any and all disputes arising under the Anti-Drug program.¹⁸³

5) THERAPEUTIC USE

Although it is not mentioned in the CBA, the NBA's Anti-Drug program does contain a TUE process.¹⁸⁴ A player can petition the Medical Director of the Anti-Drug program for permission to use a banned substance.¹⁸⁵ The Medical Director determines whether the player is entitled to the TUE based upon the player's diagnosis and relevant medical information submitted by the player, including but not limited to a validly issued prescription.¹⁸⁶

6) **TREATMENT**

Like the NFL, the NBA's Anti-Drug Program includes a treatment component. The NBA's Anti-Drug Program has three different treatment programs depending on the substance involved: drugs of abuse (excluding marijuana); marijuana; and, PES. Discipline for the three programs differs and will be discussed in the next Section.

a) Drugs of Abuse Program

The Drugs of Abuse Program is a two-stage program that includes education, treatment, counseling, and additional testing as directed by the Medical Director.¹⁸⁷ Players enter the Drugs of Abuse Program in one of two ways: (1) by testing positive for a drug of abuse as a rookie;¹⁸⁸ or, (2) by voluntarily entering the Drugs of Abuse Program to seek treatment.¹⁸⁹

b) Marijuana Program

The Marijuana Program also includes education, treatment, counseling, and additional testing as directed by the Medical Director.¹⁹⁰ Players enter the Marijuana Program by: (1) testing positive for marijuana;¹⁹¹ (2) being found to have used or possessed marijuana by the Grievance Arbitrator;¹⁹² (3) being convicted of the use or possession of marijuana;¹⁹³ or, (4) voluntarily entering the Marijuana Program to seek treatment.¹⁹⁴

c) SPEDs Program

The SPEDs Program (for steroids, performance-enhancing substances, and masking agents), like the Drugs of Abuse Program and Marijuana Program, includes education, treatment, counseling, and additional testing as directed by the SPED Medical Director.¹⁹⁵ Players enter the SPEDs Program by: (1) testing positive for a SPED;¹⁹⁶ or, (2) being found to have used or possessed a SPED by the Grievance Arbitrator.¹⁹⁷ Under the 2011 CBA, players could voluntarily enter the SPEDs Program and avoid discipline,¹⁹⁸ but that option was eliminated in the 2017 CBA.¹⁹⁹

7) DISCIPLINE

Discipline for a violation of the NBA's Anti-Drug Program depends on the type of prohibited substance triggering the violation and, for drugs of abuse only, whether a player is a rookie or a veteran.

a) Drugs of Abuse

Table 4-C on the next page outlines the types of discipline for drugs of abuse in the NBA.

Table 4-C:

NBA Drugs of Abuse Program Discipline Schedule

Player Status	First Violation	Second Violation
Rookie	Dismissed and disqualified for at least one year; contract voided subject to reinstatement by agreement of the NBA and NBPA; enters Drugs of Abuse Program. ²⁰⁰	If in Stage 1, suspended until there is compliance and advanced to Stage 2. ²⁰¹ If in Stage 2, dismissed and disqualified for at least two years, subject to reinstatement, and contract voided. ²⁰²
Veteran	Dismissed and disqualified for at least two years' subject to reinstatement by agreement of the NBA and NBPA; contract voided. ^{203,m}	For players who entered the Drugs of Abuse Program voluntarily, if in Stage 1, suspended until there is compliance and advanced to Stage 2. ²⁰⁴ If in Stage 2, dismissed and disqualified for at least two years' subject to reinstatement by agreement of the NBA and NBPA and contract voided. ²⁰⁵

Players who voluntarily enter the Drugs of Abuse Program will not be disciplined provided they comply with their treatment.²⁰⁶

In addition to the discipline outlined above, players who are convicted of crimes involving alcohol (including DUI or DWI) or controlled substances that are not prohibited substances are subject to discipline as determined by the Commissioner and will be evaluated by the Medical Director of the Anti-Drug Program, who can mandate counseling.²⁰⁷

b) Marijuana

Table 4-D below outlines the types of discipline for marijuana use in the NBA.

Table 4-D:

NBA Marijuana Program Discipline Schedule

Violation	Discipline
First	Required to enter Marijuana Program. ²⁰⁸
Second	Fined \$25,000 and required to enter Marijuana Program if not already. ²⁰⁹
Third	Suspended for five games and required to enter Marijuana Program if not already in. ²¹⁰
Fourth or more	Suspended for five games longer than immediately preceding suspension and required to enter Marijuana Program if not already in. ²¹¹

In reviewing a draft of this Report, the NBA confirmed that a veteran player that commits his first violation of the Anti-Drug Program in relation to a drug of abuse (excluding marijuana) is dismissed and disqualified from the NBA and is not entered into the Drugs of Abuse Program, i.e., the NBA does not provide or facilitate treatment for the player. Players who voluntarily enter the Marijuana Program will not be disciplined provided they comply with their treatment. ²¹²

c) SPEDs

Table 4-E below explains the discipline meted out for PES use in the NBA.

Table 4-E: NBA SPEDs Program Discipline Schedule

Violation	Discipline
First	Suspended for 25 games and required to enter SPEDs Program. ²¹³
Second	Suspended for 55 games and required to enter SPEDs Program if not already in. ²¹⁴
Third	Dismissed and disqualified for at least two years' subject to reinstatement by agreement of the NBA and NBPA, and required to enter SPEDs Program if not already in. ²¹⁵

Under the 2011 CBA, players who voluntarily entered the SPEDs Program were not disciplined provided they complied with their treatment.²¹⁶ However, the ability to come forward voluntarily without punishment was removed in the 2017 CBA.²¹⁷

8) CONFIDENTIALITY

Except as "reasonably required" in connection with the suspension or dismissal of a player, the NBA, the clubs, the NBPA, and their affiliates and employees "are prohibited from publicly disclosing information about the diagnosis, treatment, prognosis, test results, compliance, or the fact of participation of a player in the [Drug] Program."²¹⁸ If a player is suspended or disqualified for a violation involving a drug of abuse or marijuana, the NBA may not publicly disclose the prohibited substance involved, but, if the player is suspended for conduct involving a SPED, the particular SPED shall be disclosed.²¹⁹ The Medical Directors, drug program counselors, the Independent Expert, and Members of the Prohibited Substances Committee are also prohibited from public disclosure of information obtained in their roles.²²⁰



D) The NHL's Drug Policies

Like the NFL, the NHL has two separate policies concerning the use of drugs: (1) the Performance Enhancing Substances Program ("PES Program"); and, (2) Substance Abuse and Behavioral Health Program ("Substance Abuse Program"). The PES Program was most recently amended as part of the 2013 CBA. The Substance Abuse Program was put into place in 1996 and it has not been changed since then. We will describe both policies for each issue of interest.

1) SUBSTANCES PROHIBITED

a) PES Program

The Prohibited Substances List for the PES Program is based on the WADA Prohibited List, with specific prohibited substances selected jointly by the NHL and NHLPA for their relevance to professional hockey.²²¹ The Prohibited Substance List is not publicly available, but the parties agreed by letter agreement accompanying the 2013 CBA to include on the Prohibited Substances List "'illegal' stimulants and amphetamines . . . that are relevant to the sport of hockey."²²²

b) Substance Abuse Program

The Substance Abuse Program does not define "substances of abuse," but the Substance Abuse Program Collection and Laboratory Procedures for Samples includes threshold levels for marijuana, cocaine, opiates, PCP, amphetamines, and alcohol.²²³

2) TYPES OF TESTS AND PROHIBITED CONDUCT

a) PES Program

The PES Program does not detail the type of specimen that a player must submit, leaving the decision to the Program Committee (discussed below in Section 4: Administration). Recent news articles indicate that the PES Program uses urine samples rather than blood testing.²²⁴

Under the PES Program, a test is "positive," if: (1) the test indicates levels of the prohibited substance that exceed the established cutoff levels; (2) the player had an unexcused failure or refusal to take the test; or, (3) the player attempted to substitute, dilute, mask, or adulterate his test specimen.²²⁵

While the NHL, like the NFL, employs a "strict liability standard" (*i.e.*, the player will be disciplined regardless of whether he intended to take a banned substance),²²⁶ a player has the right to offer an alternative medical explanation for an adverse analytical finding (*i.e.* a positive test) under the PES Program.²²⁷ If, after considering relevant evidence, the Program doctors determine that a valid alternative medical explanation exists, then that alternative medical explanation renders the player's test result conclusively non-positive and the player is not subject to discipline.²²⁸ If the Program doctors do not determine that a valid alternative medical explanation exists, then the doctors must promptly test the player's "B" sample,²²⁹ which was gathered as part of the initial urine specimen collection process. If the "B" sample tests negative, then the player's test is conclusively non-positive and the player is not subject to discipline.230

b) Substance Abuse Program

The Substance Abuse Program uses urine samples.²³¹

To establish a violation of the Substance Abuse Program, there are threshold levels for initial tests and confirmatory tests for the different substances of abuse.²³² However, as will be explained further below, it is important to note that only players who are currently enrolled in the Substance Abuse Program are tested in an identifiable manner. In other words, there is no identifiable random testing.

3) NUMBER OF TESTS

a) PES Program

Similar to the NFL, under the PES Program, each NHL club is subject to one team-wide, no-notice drug test during training camp and one team-wide, no-notice drug test randomly during the regular season.²³³ In addition,

"[i]ndividual Players will be randomly selected for nonotice testing during the Regular Season and Playoffs."²³⁴ While the Program Committee may only test up to sixty players during the off-season, there is no regular season cap.²³⁵ There is also no limit on the number of times the Program Committee may test an individual player.²³⁶

The Program Committee may also test players at any time for reasonable cause if it has "information that gives it reasonable cause to believe that a Player has, in the previous 12-month period, engaged in the use of a Prohibited Substance."²³⁷ However, the player has 48 hours after receiving Reasonable Cause Notification to contest the information giving rise to the reasonable cause to an impartial arbitrator.²³⁸

b) Substance Abuse Program

Unlike the NFL, where all players under contract are subject to an identifiable drug test, the NHL's Substance Abuse Program does not subject NHL players to random identifiable testing for substances of abuse for disciplinary purposes. Tests conducted under the PES Program do report test results for drugs of abuse but on a de-identified basis.²³⁹ Only "if a positive result shows a dangerously high level for a drug of abuse such that it causes concern for the health or safety of the Player or others," do the Program Doctors have the right to discover the identity of the player and refer the player for an evaluation under the Substance Abuse Program.²⁴⁰ In response to concerns about cocaine use by NHL players, during the 2015 season it was announced that all tests conducted under the PES Program would include a test for the drug.²⁴¹ Previously, only one-third of PES Program drug tests tested for drugs of abuse.242

Players may also voluntarily enter the Substance Abuse Program.²⁴³ In fact, voluntarily entering the program is the principal method by which players begin treatment. It is also possible that players can be required to undergo a test for a substance of abuse if the NHL or club has reasonable cause to believe the player has used a drug of abuse, similar to the provision contained in the PES Policy. The Substance Abuse Program doctors are authorized to require that players in the Substance Abuse Program "undergo periodic substance testing at a frequency and on a schedule to be determined by the doctors. Such testing may take place both in season and during the off-season."²⁴⁴

4) **ADMINISTRATION**

a) PES Program

The Program Committee, comprised of an equal number of NHL and NHLPA representatives and a consulting expert doctor from each side, administers the PES Program.²⁴⁵ The Program Committee is responsible for, among other things, developing an educational program, overseeing the administration of PES testing, recommending to the NHL and NHLPA which PES from the WADA Prohibited Listⁿ they should include on the Prohibited Substances List, supervising player evaluation and treatment following positive tests, and administering the TUE process.²⁴⁶

b) Substance Abuse Program

"[Q]ualified doctors selected by the League and the NHLPA" administer the Substance Abuse and Program.²⁴⁷ The Substance Abuse Program doctors' responsibilities include the development of an educational program, establishment of a multinational counseling network, development of standardized medical assessment tools for substance abuse problems, making decisions concerning treatment and follow-up care, and ensuring compliance with the program.²⁴⁸

5) THERAPEUTIC USE

a) PES Program

A player may apply to the PES Program Committee for a TUE with respect to a particular prohibited substance.²⁴⁹ "[T]he Program Committee shall review, consider and act upon such Player's application expeditiously and approval of the application shall not be unreasonably withheld."²⁵⁰

b) Substance Abuse Program

There is no TUE provision in the Substance Abuse Program.

6) TREATMENT

a) PES Program

Players who violate the PES Program are referred to the Substance Abuse Program for evaluation and possible treatment. In contrast, the NFL's PES Policy does not refer violators to its Intervention Program for treatment.

n The NHL is the only of the four major American sports leagues to use the WADA Prohibited List in choosing its own prohibited substances.

b) Substance Abuse Program

Similar to the NFL's Intervention Program, the Substance Abuse Program is principally a "program of education, counseling, inpatient and outpatient treatment, follow-up care, and, where appropriate, sanctions."²⁵¹ Players who enter the Substance Abuse Program are given an initial evaluation and then a treatment plan as chosen by the Program Doctors.²⁵²

7) **DISCIPLINE**

a) PES Program

Table 4-F below explains the types of discipline for PES use by the NHL.

Table 4-F:

NHL PES Program Discipline Schedule

Violation	Discipline
First	Suspended for 20 games and referred to Substance Abuse Program. ²⁵³
Second	Suspended for 60 games and referred to Substance Abuse Program. ²⁵⁴
Third	Player permanently suspended, although player can apply for reinstatement after 2 years. ²⁵⁵

From the time that the PES Policy was first instituted in 2005 through 2013, it was reported that only one player tested positive under the PES Policy, causing some to question the effectiveness of the Policy.²⁵⁶ As of the date of publication, five players have been *disciplined* under the PES Policy—though that does not necessarily mean there have been five positive tests as players could be disciplined for other violations of the PES Policy. However, because hockey is an Olympic sport, NHL players wishing to play in the Olympics are also subject to testing by their country's respective Olympic drug-testing programs (such as the United States Anti-Doping Agency), and it is thus possible that PES are particularly uncommon in the NHL.^o

b) Substance Abuse Program

Table 4-G below explains the types of discipline under the NHL's Substance Abuse Program. Again, we note that only

players in the Substance Abuse Program are tested in an identified manner, and thus only those players can be disciplined.

Table 4-G:

NHL Substance Abuse Program Discipline Schedule

Violation	Discipline
First	No discipline; enters Stage 1 of Substance Abuse Program. ²⁵⁷
Second	Suspended during active treatment; enters Stage 2 of the Substance Abuse Program. ²⁵⁸
Third	Suspended for a minimum of six months; enters Stage 3 of the Substance Abuse Program. ²⁵⁹
Fourth	Suspended for a minimum of one year; enters Stage 4 of the Substance Abuse Program. ²⁶⁰

In addition, a player who voluntarily enters the Substance Abuse Program cannot be disciplined provided he complies with his treatment.²⁶¹

Outside the scope of the Substance Abuse Program, players might still be subject to discipline if they have violated the law concerning alcohol or a drug of abuse. Indeed, the Substance Abuse Program states that players may be subject to other discipline outside of the Substance Abuse Program.²⁶² The NHL CBA provides the Commissioner wide discretion to impose discipline for off-ice conduct, including fines, suspensions, and cancelling a player's contract.²⁶³ Any discipline imposed is subject to appeal before a neutral arbitrator.²⁶⁴

8) CONFIDENTIALITY

a) PES Program

Test results under the PES Program are confidential except that: (1) once a positive test has been confirmed by the impartial arbitrator (or if no grievance has been filed), the player suspended will be identified and the fact of and length of his suspension under the Program will be announced; and, (2) if a player is subject to a transaction that results in a change to his status (*e.g.*, a trade) and that transaction was completed between the date on which the player tested positive and the date upon which he received his suspension, a club alleging that it was adversely affected by the player's nondisclosure of his positive test may file a grievance.²⁶⁵

Basketball and soccer are also Olympic sports and thus performance-enhancing drug usage in those sports might also be lowered as a result of the Olympic drugtesting programs.

b) Substance Abuse Program

The assessment of alcohol and drug problems under the Substance Abuse Program shall be conducted "with the assurance of confidentiality."²⁶⁶ The Substance Abuse Program recognizes that "records which contain information pertaining to the diagnosis or treatment of psychiatric, alcohol- or drug-related disorders are subject to strict confidentiality" and therefore requires the player-patient's prior written authorization for disclosure.²⁶⁷ The Substance Abuse program doctors are responsible for "[a]ppropriate maintenance of confidentiality of Player records."²⁶⁸



E) The CFL's Drug Policies

The CFL-CFLPA Policy to Prevent the Use of Performance Enhancing Drugs ("PED Policy") was most recently amended in April 2016.

The CFL does not have a policy concerning drugs of abuse and the CFL CBA specifically declares that "there shall be no drug testing conducted in relation to any player in the C.F.L. except as provided for in the [PED Policy]."²⁶⁹ However, the CFL CBA states that the CFLPA and the CFL Player Relations Committee ("CFLPRC") "shall continue with a Committee which shall have the mandate of studying and gathering information with respect to drug abuse related to both illegal and performance enhancing drugs."²⁷⁰

1) SUBSTANCES PROHIBITED

The PED Policy prohibits PES, stimulants, and masking agents.²⁷¹

2) TYPES OF TESTS AND PROHIBITED CONDUCT

Like the NFL's PES Policy, the CFL's PED Policy authorizes the collection of blood and urine samples.²⁷²

According to the PED Policy, "[e]xcepting those drugs for which a quantitative reporting threshold is specifically identified in the Prohibited List, the detected presence of any quantity of a Performance Enhancing Drug, its Metabolites or Markers in a Player's sample shall result in an Adverse Analytical Finding."²⁷³ In addition to adverse analytical findings, players are subject to discipline for refusing to comply with the testing provisions, tampering or attempting to tamper with the sample collection process, administering or attempting to administer (or assisting with, encouraging, or covering up the administration of) a PES to any other player, and conviction in Canada of a criminal offense for possession or trafficking of a PES on the CFL Prohibited List.²⁷⁴

3) NUMBER OF TESTS

Beginning with the 2016 season, all players are tested under the PED Policy.²⁷⁵ In addition, players are subject to targeted testing if: (1) "the laboratory has recommended follow-up testing based on their analytical investigation;" (2) "the Player is presently undergoing counseling and as a condition of their counseling, they are subject to further testing;" or, (3) "the Player has been granted a retroactive exemption" for previously refusing to submit to a drug test.²⁷⁶ Finally, if a player has previously committed a violation of the PED Policy, then the player will be subject to mandatory testing for a two-year period following the violation, up to a maximum of eight drug tests.²⁷⁷

The CFL has the authority to reduce testing frequency, at any time and in its sole discretion.²⁷⁸ All testing is done randomly, with no advance notice, and may occur at any time during the calendar year.²⁷⁹

4) ADMINISTRATION

The CFL and CFLPA are jointly responsible for administering the PED Policy, but the PED Policy does not elaborate on the specifics of that administration.²⁸⁰

5) THERAPEUTIC USE

The Designated Medical Authority,²⁸¹ a doctor jointly appointed by the CFL and CFLPA for the purpose of reviewing TUE applications, may grant a TUE to a player if: (2) the player could experience a significant health impairment if the substance "were to be withheld in the course of treating an acute or chronic medical condition"; (3) the use of the substance would "produce no additional achievement or performance other than that which might be anticipated by a return to a state of normal health"; and, (3) there is not a "reasonable therapeutic alternative" to using the prohibited substance.²⁸²

6) TREATMENT

The CFL's PED Policy makes treatment available to the players. "If a Player is suspended by the CFL pursuant to the terms of [the PED] Policy, such Player must participate in an assessment and clinical evaluation, to determine whether a counselling program would be recommended The program would be tailored to meet the specific needs of the Player and may include, but is not limited to, the following: (a) counselling from medical personnel or substance abuse experts; (b) remedial education that provides various information including alternatives to the use of performance enhancing substances; and (c) community service, including speaking to other Players or members of the public about the dangers of using Performance Enhancing Drugs in sport."283 Nevertheless, "it is at the sole discretion of the player" whether he receives treatment.284

In contrast, the NFL makes treatment available as part of its Substance Abuse Policy but not its PES Policy.

7) **DISCIPLINE**

Table 4-H below explains the types of discipline for PES use by the CFL.

Table 4-H: CFL PED Policy Discipline Schedule

Violation	Discipline
First	Suspended for two games, must complete educational course, undergo a clinical evaluation, and subject to additional drug testing for two years. ²⁸⁵
Second	Suspended for nine games, must complete educational course, undergo a clinical evaluation, and subject to additional drug testing for two years. ²⁸⁶
Third	Suspended for one year, must complete educational course, undergo a clinical evaluation, and subject to additional drug testing for two years. ²⁸⁷
Fourth	Suspended for life.288

A player who voluntarily admits a problem using PES is not subject to discipline and will undergo a clinical evaluation.²⁸⁹ In contrast, the NFL's PES Policy does not offer self-referrals a safe harbor from discipline.

> The CFL's PED Policy makes treatment available to the players. In contrast, the NFL makes treatment available as part of its Substance Abuse Policy but not its PES Policy.

8) CONFIDENTIALITY

The CFL, CFLPA, CFL Safety Committee, Sample Collection Authority, and the Substance Abuse Counseling Organization may not share a player's medical information.²⁹⁰ However, the permitted disclosure of information about a player's failed drug test is much broader. As of 2016, the PED Policy dictates that "the CFL and CFLPA shall disclose the name of every Player who violates the [PED] Policy including disclosure of the summary details of the applicable violation (substance detected, sanction imposed, reasons for a sanction reduction, etc.) but only after all appeals available to the Player under the [PED] Policy have been exhausted."291 Additionally, the PED Policy also authorizes "the CFL Commissioner and the President of the CFLPA, or their respective designees, . . . to speak publicly and disclose any information about a Player that has violated the [PED] Policy."292



F) MLS' Drug Policies

MLS' Substance Abuse and Behavioral Health Program and Policy ("Substance Abuse Policy") covers both PES and drugs of abuse. The Substance Abuse Policy was most recently amended as part of the 2015 CBA.

1) SUBSTANCES PROHIBITED

MLS' Substance Abuse Policy regulates four types of substances.

First, the Substance Abuse Policy "prohibits the use or possession of any controlled substance without a prescription issued by a physician licensed to practice medicine."²⁹³ The Substance Abuse Policy also declares that "[p]rescription drugs, even if properly prescribed, may also be prohibited if such drug is not being used for an approved medical reason[.]"²⁹⁴

Second, the Substance Abuse Policy prohibits the use of "street drugs," including, "without limitation, (1) amphetamines, (2) barbiturates, (3) benzodiazepines, (4) cocaine, (5) marijuana, (6) methadone, (7) methaqualone, (8) opiates, (9) phencyclidine (PCP), (10) propoxyphene, (11) ecstasy, and (12) club drugs including GHB and their analogs[.]"²⁹⁵

Third, while MLS "recognizes that alcohol is a legal substance," the Substance Abuse Policy prohibits "the use of alcohol on work premises [unless as part of a Club or League function] or reporting to work under the influence of alcohol or otherwise being affected at work by the consumption of alcohol[.]"²⁹⁶

Fourth, the Substance Abuse Policy adopts the WADA Prohibited List for its list of prohibited PES.²⁹⁷

2) TYPES OF TESTS AND PROHIBITED CONDUCT

MLS' Substance Abuse Policy only provides for urine testing.²⁹⁸

A player violates the Substance Abuse Policy, in relevant part,^p "(i) through receipt of a [failed test], (ii) use or

possession of any controlled substance without a prescription, (iii) abuse of a prescription drug, (iv) use of alcohol on work premises or reporting to work under the influence of alcohol or otherwise being affected at work by the consumption of alcohol, (iv) use or possession of [street drugs], [or] (v) use or possession of [PES][.]"²⁹⁹ "An adulterated or substituted drug test" is treated as a positive test.³⁰⁰ Additionally, a refusal to submit to a drug test is also considered a positive test.³⁰¹

3) NUMBER OF TESTS

The Substance Abuse Policy dictates that "[a]ll Players are subject to unannounced . . . testing" for all prohibited substances.³⁰² The Substance Abuse Policy does not set a limit on the number of times a player can be tested.³⁰³

4) ADMINISTRATION

The Substance Abuse Policy is "administered by qualified doctors, in associated with a certified substance abuse and behavioral health counselor ('Program Professionals')[.]"³⁰⁴ The Program Professionals are "selected jointly by the [MLS] Commissioner or his designee and the MLS Players Union[.]"³⁰⁵ The Program Professionals are responsible for:

- Developing an educational program on substance abuse and behavioral health problems to be presented at least once each year to Players;
- 2. Overseeing Prohibited Substance and alcohol testing;
- Establishing a comprehensive multi-national counseling network to include a 24-hour toll-free number and a network of designated counseling professionals in each MLS city;
- Implementing a standardized medical and/or psychological assessment used to evaluate Players who have violated the [Substance Abuse] Policy or who self-refer to the [Substance Abuse] Program;
- Making decisions concerning treatment and aftercare, and ensuring compliance with those treatment programs. The [Substance Abuse] Program Professionals shall determine all substance abuse and behavioral health treatments of Players; and,
- Selecting and evaluating laboratory, treatment, and aftercare facilities.³⁰⁶

p The Substance Abuse Policy also governs "violation[s] of criminal law," "domestic violence," and, "illegal or excessive gambling[.]" MLS Substance Abuse Policy, § 5(A). Such violations are subject to "discipline[] for just cause." *Id.* at § X(B)(2).

5) THERAPEUTIC USE

MLS' Substance Abuse Policy does not provide any exceptions for therapeutic use.

6) TREATMENT

MLS' Substance Abuse Policy provides the possibility of treatment for any violation of the Substance Abuse Policy, including PES.³⁰⁷ A player is required to undergo an evaluation for possible treatment if the player: (1) refers himself for treatment; (2) has violated the Substance Abuse Policy; or, (3) is recommended to be evaluated by a league or club official who has "reasonable belief" that the player has violated the Substance Abuse Policy.³⁰⁸ The Program Professionals will make a determination as to whether or not the player should enter treatment.³⁰⁹

Treatment can consist of counseling, outpatient treatment, in-residence treatment at a designated facility, and necessary aftercare.³¹⁰ Players must following the treatment determinations made by the Program Professionals.³¹¹ Also, the costs of treatment are covered by MLS.³¹²

7) **DISCIPLINE**

Like the NFL, MLS' Substance Abuse Policy contains a multi-stage treatment program in which the discipline is determined by the player's level of compliance with his treatment.³¹³ Importantly, this multi-stage treatment process applies only to drugs of abuse, not PES.³¹⁴ Figure 4-B on the next page shows an MLS player's path through the MLS Substance Abuse Policy Program. As compared to the NFL's Intervention Program, the level of discipline to be imposed by the MLS Substance Abuse Policy is far less clear. A player cannot be disciplined for voluntarily referring himself to the Program.³¹⁵ A player who fails a test for the first time is generally not disciplined for a first offense and is placed in Stage 1 of the Program.³¹⁶ However, upon the recommendation of the Program Professionals, a player can be placed in Stage 2 based on an initial failed test and players in Stage 2 are suspended without pay during treatment and are only reinstated at the Commissioner's discretion.³¹⁷ Generally, speaking, the MLS Substance Abuse Policy prescribes no specific punishments, leaving discipline to the discretion of the MLS Commissioner, with the consultation of the Program Professionals.³¹⁸ Moreover, the Substance Abuse Policy does not explicitly describe how players can exit the Program, which presumably occurs if they comply with treatment.







Finally, if a player violates the Substance Abuse Policy via the use or possession of PES, his discipline is determined in the "sole and absolute discretion" of the league, "including, without limitation, fines, suspension (with or without pay), and/or termination of the Player's [contract]."³¹⁹

MLS is also the only league that does not provide its players with the possibility of challenging a violation of the Substance Abuse Policy through a neutral arbitration process. Instead, players can submit their challenge to a positive test in writing to the Program Professionals who then have the "absolute and sole" discretion to adjudicate the player's complaint.³²⁰

8) CONFIDENTIALITY

MLS' Substance Abuse Policy provides limited confidentiality protections for players. A player's participation in the treatment phase of the Program is only kept confidential if he is not yet in Stage 1 of the Program,³²¹ which can only occur through a self-referral. If a player is in treatment, MLS "may notify the Player's team of [the player's status and progress] as deemed reasonably necessary."³²² If a player has been suspended or terminated for a violation of the Substance Abuse Policy that did not involve PES, MLS may disclose "only that a Player has been suspended or terminated pursuant" to the Substance Abuse Policy.³²³ "If a player is suspended or terminated for use or possession of a [PES], MLS may disclose such information as it deems necessary/appropriate."³²⁴



G) Analysis

The following tables summarize and compare the features of the leagues' drug policies.

Table 4-I:

Comparison of Leagues' PES Policies^q

Feature	NFL	MLB	NBA	NHL	CFL	MLS
Independent administration	Yes	Yes	Yes	Yes	Yes	Yes
Urine tests permitted	Yes	Yes	Yes	Yes	Yes	Yes
Blood tests permitted	Yes	Yes	Yes	No	Yes	No
Maximum number of annual tests for player without prior violation	24	No maximum	Nine	No maximum	No maximum	No maximum
Therapeutic Use Exemptions available	Yes	Yes	Yes	Yes	Yes	No
Treatment available	No	No	Yes	No	Yes	Yes
Safe harbor for self-referrals	No	No	No	No	Yes	No
Discipline for first violation	Two–Six games	80 games	25 games	20 games	Two games	League discretion
Discipline for second violation	Ten games	162 games	55 games	60 games	Nine games	League discretion
Discipline for third violation	Two years	Life	Two years (subject to reinstatement)	Two years	One year	League discretion
Discipline for fourth violation	NA	NA	NA	NA	Life	League discretion
Confidential violations	Until discipline	Until discipline	Until discipline	Until discipline	Until discipline	Until discipline
Neutral appeal rights	In part	Yes	Yes	Yes	Yes	No

For context, the NFL regular season is 16 games, the MLB regular season is 162 games, the NBA and NHL regular seasons are 82 games, the CFL regular season is 18 games, and the MLS regular season is 34 games.

Table 4-J: Comparison of Leagues' Drugs of Abuse Policies

Feature	NFL	MLB	NBA	NHL	CFL	MLS
Independent administration	Yes	Yes	Yes	Yes	No Policy	Yes
Urine tests permitted	Yes	Yes	Yes	Yes	No Policy	Yes
Blood tests permitted	No	No	No	No	No Policy	No
Maximum number of annual tests for player without prior violation	One	No tests	Six	No tests	No Policy	No maximum
Therapeutic Use Exemptions available	Yes	Yes	Yes	No	No Policy	No
Treatment available	Yes	Yes	Yes	Yes	No Policy	Yes
Safe harbor for self-referrals	Yes	Maybe	Yes	Yes	No Policy	Yes
Discipline for first violation	None	None	No (Marijuana); One year for rookies only or two years (other drugs)	None	No Policy	Determined by Program Professionals evaluation
Discipline for second violation	Fine (Marijuana); Four games (other drugs)	15–25 games	\$25,000 fine (Marijuana); 2 years for rookies or self-referrals (other drugs)	Suspended during treatment	No Policy	League discretion
Discipline for third violation	4–6 games	50–75 games	Five games (Marijuana)	Minimum of six months	No Policy	League discretion
Discipline for fourth violation	10 games (Marijuana); One year (other drugs)	At least One year	Ten games (Marijuana)	Minimum of one year	No Policy	League discretion
Confidential violations	Yes	Yes	Yes	Yes	No Policy	Until discipline
Neutral appeal rights	Yes	Yes	Yes	Yes	No Policy	No

With the possible exception of how marijuana is regulated, the Big Four's drug policies do not vary substantially. Before delving into specific issues of analysis, we note that the leagues and unions balance multiple factors in creating drug policies, including but not limited to deterrence, treatment, privacy, and integrity of the game. These policy considerations and value judgments are debatable in many spheres of the world, not just sports. To be sure, many aspects of these policies impact player health. The three features of the policies we view as most important and those which we focus on are: (1) the availability of TUEs; (2) the availability of treatment; and, (3) the opportunity to receive treatment without being subject to initial discipline. With these issues in mind, we turn to our analysis of how the NFL compares to the other leagues. Concerning TUEs, the NFL, MLB and the NBA all offer TUEs for both their PES and drugs of abuse policies. In contrast, the CFL offers TUEs for its PES policy but does not have a drugs of abuse policy. We also found no evidence that the NHL offers a TUE for its Substance Abuse Program or that MLS offers any TUEs. Thus, the NFL's use of TUEs is at least as good as the other leagues.

All of the leagues, including the NFL, have robust treatment programs for drugs of abuse. However, the NBA, CFL, and potentially MLS are the only leagues that offer treatment for a player who has violated a PES Policy. On this issue, it might appear that the NFL can learn compared to the NBA and CFL. However, there are other relevant considerations concerning the treatment programs offered to players, discussed next.

The NFL, NBA, NHL, MLS and maybe MLB provide a safe-harbor for players who voluntarily refer themselves for treatment for drugs of abuse. These provisions importantly allow players to seek help they might recognize they need without the fear of immediate adverse employment action.

In contrast, no Big Four league offers a safe-harbor for players who have used PES. Under its prior CBA, NBA

players did have a safe-harbor for PES use,³²⁵ but that option was eliminated in the 2017 CBA.³²⁶ The NBA does still, however, provide treatment for PES use.³²⁷ The leagues that do not offer safe-harbor provisions for PES use may not offer such safe harbors because they believe that there are important differences between players who take PES and those who take drugs of abuse—we can only speculate because they have not publicly explained this policy difference. It is possible that these leagues view PES users as players intentionally looking to cheat the game and their competitors, whereas those using drugs of abuse need medical care.

However, there is robust scientific evidence supporting the need to provide treatment to PES users. PES usage has shown to be addictive,³²⁸ and has been associated with the use of drugs of abuse³²⁹ (opioids in particular),³³⁰ body dysmorphic disorder,³³¹ depression,³³² antisocial traits,³³³ mood and personality disorders,³³⁴ other psychological disorders,³³⁵ and cognitive deficits in impulsivity, risk-taking, and decision-making.³³⁶ As a result, PES users may experience withdrawal symptoms,³³⁷ and may be at an increased risk of suicide.³³⁸ Consequently, many experts recommend and provide treatment and counseling for PES users.³³⁹



H) Recommendation

Recommendation 4-A: The NFL should consider amending the PES Policy to provide treatment to any NFL player found to have violated the PES Policy.

The NFL and the other leagues recognize that substance abuse is a serious medical issue and, as a result, provide players with robust counseling and treatment. As discussed above, PES usage has been shown to be associated with a variety of serious physical and mental ailments. However, only the NBA and CFL offer treatment for players who have used PES. In light of the potential negative health consequences associated with PES usage and the treatment provided by the NBA and CFL for PES usage, it seems prudent for the NFL to consider providing treatment to PES users similar to that provided for by the Substance Abuse Policy's Intervention Program.

There is an important clarification to this Recommendation. As stated earlier in this Chapter, we are not focused on the competitive advantage concerns associated with PES use or the discipline imposed by the leagues for drug or PES usage. We are focused on the health implications of drug and PES policies. Thus, our Recommendation should not be read to suggest that because players might need treatment for PES usage that they should not be disciplined—as is the case for first time offenders of the Substance Abuse Policy.

As discussed in the Introduction, the NFL declined to review this Report. However, MLB did provide comments on the Report which may provide insight into the viewpoints of the other professional leagues. MLB did not agree with this Recommendation, stating:

There are no established treatment programs for PEDs, and since the recidivism rate for PEDs is fairly low, there is no support for the position that this class of prohibited substances warrants a response based on treatment. It is also an established practice of not just MLB, but all other professional leagues and international anti-doping organizations that the use of PEDs affects the integrity of play and should be responded with a disciplinary perspective as opposed to a clinical one. Our experts advise not including "PED treatment programs" as a recommendation in the report.

As a preliminary matter, we note that the NBA and CFL do provide treatment to PES users. Thus, there is a disagreement among the leagues (and potentially also the unions) on this issue, suggesting further research is needed.

We further reply to MLB with a clarification and with a disagreement. We understand sports organizations' need to discipline players who have violated PES policies. Our recommendation does not seek the elimination or reduction of discipline for PES violations in any way. Instead, we believe it is appropriate to consider providing players who have violated the PES Policy with counseling, regardless of any discipline imposed. This is where we and MLB disagree.

MLB rejects counseling for PES use on the grounds that "[t]here are no established treatment programs for PEDs." As discussed above, experts in the field recommend and do provide treatment for PES usage and its associated problems. Whether these programs are sufficiently "established," is beyond our expertise, but it nonetheless is an issue worth further consideration.

Endnotes

- 1 An exact definition for PES or PEDs is elusive. See Michael T. Lardon, Performance-Enhancing Drugs: Where Should the Line be Drawn and by Whom? 5 Psychiatry 58 (2008) (discussing the difficulty with determining what substances should be considered PEDs and thus banned). The United States Anti-Doping Agency describes PEDs as substances that "have the ability or potential to drastically alter the human body and biological functions, including the ability to considerably improve athletic performance in certain instances . . . [but that] can be extremely dangerous and, in certain situations, deadly." Effects of PEDs, U.S. Anti-Doping Agency, http://www.usada.org/substances/effects-of-performance -enhancing-drugs/, archived at http://perma.cc/CM2U-5SGK.
- 2 MLB JDA, § 2(A).
- 3 NFL Drug Policy, n.1. The NBA defines "drugs of abuse" as amphetamines, cocaine, LSD, opiates, and PCP.
- 4 U.S.C. § 812(b)(1)(B).
- 5 State Marijuana Laws Map, Governing, http://www.governing.com/gov -data/state-marijuana-laws-map-medical-recreational.html (last visited Feb. 21, 2017), archived at https://perma.cc/5U82-EAWN.
- 6 See, e.g., Nora D. Volkow, Ruben D. Baler, Wilson M. Compton, Susan R.B. Weiss, Adverse health effects of marijuana use, 370 N. Engl. J. Med. 23 (2014); Editorial Board, Repeal Prohibition, Again, N.Y. Times, Jul. 27, 2014, http://www.nytimes.com/interactive/2014/07/27/opinion/sunday/ high-time-marijuana-legalization.html?op-nav, archived at http://perma .cc/EH28-BZU6; Lawrence Downes, The Great Colorado Weed Experiment, N.Y. Times, Aug. 2, 2014, http://www.nytimes.com/2014/08/03 /opinion/sunday/high-time-the-great-colorado-weed-experiment.html ?op-nav, archived at http://perma.cc/H6W9-Y7ZE.
- 7 See Kevin Seifert, Survey: Two-thirds of NFL players say legal pot equals fewer painkillers, ESPN (Nov. 2, 2016), http://www.espn.com/nfl/story/_ /id/17951858/nfl-players-legal-pot-equals-fewer-painkillers, archived at https://perma.cc/9JJV-WENY; Darin Gantt, Former Broncos tight end says NFL should lift marijuana ban, ProFootballTalk (Mar. 6, 2015, 6:37 AM), http://profootballtalk.nbcsports.com/2015/03/06/former-broncos -tight-end-says-nfl-should-lift-marijuana-ban/, archived at http://perma .cc/82MN-BCK7; Mike Freeman, Banned, but Bountiful: Marijuana Coveted by NFL Players as Invaluable Painkiller, Bleacher Rep., Jun. 30, 2015, http://bleacherreport.com/articles/2486218-banned-but-bountiful -marijuana-coveted-by-nfl-players-as-invaluable-painkiller, archived at http://perma.cc/L8QS-X2KD.
- 8 See Eric P. Baron, Comprehensive Review of Medical Marijuana, Cannabinoids, and Therapeutic Implications in Medicine and Headache: What a Long Strange Trip It's Been . . . , Headache 885 (2015) (collecting studies and concluding "[t]he literature suggests that the medicinal use of cannabis may have a therapeutic role for a multitude of diseases, particularly chronic pain disorders"); Arthur L. Caplan, Lee H. Igel, It's Time to Normalize Medical Marijuana in Pro Sports, Forbes (Dec. 7, 2016, 7:50 AM), http://www.forbes.com/sites/leeigel/2016/12/07/its -time-to-normalize-medical-marijuana-in-pro-sports/#7d1977dd2e3f, archived at https://perma.cc/H5SD-6ZYC (discussing marijuana as a pain management tool in professional sports and the US Food and Drug Administration's approval of two medications containing cannabinoids).
- 9 Zac Jackson, NFLPA will study marijuana as a pain-management tool for players, ProFootballTalk (Nov. 9, 2016, 7:19 PM), http://profootballtalk .nbcsports.com/2016/11/09/nflpa-will-study-marijuana-as-a-pain -management-tool-for-players/, archived at https://perma.cc/S2C5 -EE67.
- 10 Gregg Rosenthal, Marijuana legalization won't change NFL drug policy, Nat'l Football League, Nov. 7, 2012, http://www.nfl.com/news/story /0ap100000091645/article/marijuana-legalization-wont-change-nfl -drug-policy, archived at https://perma.cc/YV7M-G49B.
- 11 Mike Florio, *Goodell says league would consider marijuana as a concussion treatment*, ProFootballTalk (Jan. 23, 2014, 4:56 PM),

http://profootballtalk.nbcsports.com/2014/01/23/goodell-says-league -would-consider-marijuana-as-a-concussion-treatment/, *archived at* http://perma.cc/7K93-FK93; Mike Florio, *NFL could indeed change its mind about marijuana, in time,* ProFootballTalk (Jan. 18, 2014, 1:47 PM), http://profootballtalk.nbcsports.com/2014/01/18/nfl-could-indeed -change-its-mind-about-marijuana-in-time/, *archived at* http://perma.cc /NTR2-NNW4.

- 12 Pete Thomas, *Hall's Olympic Dream Gets the Boost It Needs*, L.A. Times, Jul. 7, 2004, *available at* 2004 WLNR 19771636.
- 13 *ld.*
- 14 Amy Shipley, *Drug Exemptions Triple in MLB Majority Granted to Players* to Treat Attention-Deficit Disorder, Wash. Post, Jan. 16, 2008, available at 2008 WLNR 28017256.

- 16 *ld.*
- 17 Joy R. Absalon, Orioles' Davis 'good to go' with new therapeutic-use exemption, Fox Sports (Feb. 24, 2015, 9:12 PM), http://www.foxsports.com /mlb/story/baltimore-orioles-chris-davis-suspension-therapuetic-use -exemption-adderall-022415, archived at http://perma.cc/3VS5-MTBQ.
- 18 Independent program administrator issues annual report, Major League Baseball (Dec. 1, 2015), http://m.mlb.com/news/article/158704354, archived at http://perma.cc/BL74-JV9Q.
- 19 Independent Program Administrator Annual Report, Major League Baseball (Dec. 2, 2016), http://www.mlbplayers.com/ViewArticle.dbml ?SPID=181313&ATCLID=211336296&DB_0EM_ID=34000, archived at https://perma.cc/RS3R-68H4.
- 20 This figure was gathered from MLB.com's "Sortable Player" statistics page by adding together all players who had a plate appearance and all pitchers, and then removing those pitchers that also had a plate appearance.
- 21 See Lid Elec., Inc. v. Int'l Broth. of Elec. Workers, Local 134, 362 F.3d 940, 944 (7th Cir. 2004); Bolden v. Southeastern Penn. Transp. Authority, 953 F.2d 807, 827-28 (3d Cir. 1991), *citing* National Labor Relations Board cases and memorandum.
- 22 The NFL's Specimen Collection Process is included in documents filed as part of lawsuit brought by then-Denver Broncos Linebacker D.J. Williams against the NFL. Specifically, the Specimen Collection Process states: "[t]he player must lower his pants and underwear below his knees"; [t]he player must not have any clothing above his knees (naked from 'Knees-to-Noggin')"; and, "[t]he collector . . . will monitor the furnishing of the specimen by direct frontal observation in order to assure the integrity of the specimen until the adequate volume of 100mL minimum is provided." *See* Exhibits in Support of Brief by Plaintiffs Ryan McBean and Genos "D.J." Williams, Williams, et al. v. Nat'l Football League, 12-cv-650 (D. Colo. Apr. 2, 2012), ECF No. 41-1.
- 23 Mike Florio, League wants HGH testing, needs players to want it, too, ProFootballTalk (May 4, 2013, 3:03 PM), http://profootballtalk.nbcsports .com/2013/05/04/league-wants-hgh-testing-needs-players-to-want-it -too/, archived at http://perma.cc/A8BD-ZRFW; Mike Florio, NFLPA says NFL could have had HGH testing before MLB, ProFootballTalk (Jan. 11, 2013, 2:23 PM), http://profootballtalk.nbcsports.com/2013/01/11/ nflpa-says-nfl-could-have-had-hgh-testing-before-mlb/, archived at http://perma.cc/4LP5-879F.
- 24 NFL PES Policy, Appendix A.
- 25 Id.
- 26 NFL PES Policy, General Statement of Policy, n. 1.
- 27 NFL Substance Abuse Policy, General Policy, n. 1.
- 28 NFL Substance Abuse Policy, § 1.3.3.
- 29 Michael David Smith, A new drug testing agreement could benefit Welker, Gordon, ProFootballTalk (Sept. 4, 2014, 7:47 PM), http://profootballtalk.nbcsports.com/2014/09/04/a-new-drug-testing

¹⁵ *ld.*

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- 30 Smith, supra n. 29; Gantt, supra n. 29.
- 31 NFL PES Policy, § 6, n. 5.
- 32 NFL PES Policy, §§ 3.1, 7.
- 33 NFL PES Policy, § 11. If a player tests positive for a banned substance, he may either: "accept the result and the disciple, await the results of the scheduled 'B' sample analysis, or have an Observing Toxicologist witness the 'B' sample analysis." NFL PES Policy, § 4.2. If the "B" sample does not confirm a positive result, then the Independent Administrator never notifies the NFLMC or NFLPA of a positive test result. *Id.*
- 34 NFL PES Policy, § 5.
- 35 *Id.* Unlike other violations of the PED Policy, players who are convicted or otherwise admit to have used, possessed, or distributed PEDs are subject to discipline at the discretion of the Commissioner, including suspension up to six games for a first violation or, if appropriate, termination of a player's contract. *Id.* Other PED Policy violations follow the disciplinary schedule outlined in Section 6.
- 36 NFL PES Policy, §§ 3.3, 6, Appendix H. Players who fail to appear for testing for reasons other than attempting to deliberately evade or avoid testing are also subject to discipline — a fine of up to \$25,000 and placement in the reasonable cause testing program for a first violation, a fine of two weeks' pay for a second violation, and a four-game suspension without pay for a third violation. NFL PES Policy, Appendix H.
- 37 NFL PES Policy, § 6.
- 38 See, e.g., NFL Substance Abuse Policy, § 1.3.2.
- 39 NFL Substance Abuse Policy, § 1.3.3. If a player tests positive for a banned substance, he may either: "accept the result and the disciple, await the results of the scheduled 'B' sample analysis, or have an Observing Toxicologist witness the 'B' sample analysis." *Id.* If the "B" sample does not confirm a positive result, then the Independent Administrator never notifies the NFLMC or NFLPA of a positive test result. *Id.* The "B" sample need only show that the substance revealed in the "A" sample test is evidence to the "limits of detection." *Id.*
- 40 *Id.*
- 41 NFL Substance Abuse Policy, Appendix E. A player who fails to appear for testing, but who is adjudged not to have purposefully attempted to evade or avoid testing is subject to a \$25,000 fine and placement in the Intervention Program for his first violation, a fine of 2/17ths of his Paragraph 5 NFL Player Contract salary for his second violation, and a four game suspension without pay for his third violation. *Id.*
- 42 NFL Substance Abuse Policy, § 2.
- 43 Id. A nolo contendere plea is one in which the accused does not contest or admit guilt. See Black's Law Dictionary (9th ed. 2009) (defining "nolo plea" as "[a] plea by which the defendant does not contest or admit guilt.").
- 44 NFL PES Policy, § 3.1.
- 45 *ld.*
- 46 *ld.*
- 47 Id.
- 48 NFL PES Policy, § 7.
- 49 "As used in this Policy, sufficient credible evidence includes but is not limited to: criminal convictions or plea arrangements; admissions, declarations, affidavits, authenticated witness statements, corroborated law enforcement reports or testimony in legal proceedings; authenticated banking, telephone, medical or pharmacy records; or credible information obtained from Players who provide assistance pursuant to Section 10 ["Appeals"] of the Policy." NFL PES Policy, § 3.1 n.4.
- 50 NFL PES Policy, §§ 3.1, 7.
- 51 See, e.g., NFL PES Policy, § 7.

- 52 All NFL players are eligible for entrance into the Intervention Program. Players enter Stage One of the Intervention Program through a positive test result, behavior that exhibits symptoms of misuse of substances of abuse (e.g., an arrest for misuse of substance of abuse), or self-referral. NFL Substance Abuse Policy, § 1.4.1. A self-referred player always remains in Stage One of the Substance Abuse Policy. *Id.*
- 53 NFL Substance Abuse Policy, § 1.3.1.
- 54 Mike Florio, Marijuana testing window opens today, ProFootballTalk (Apr. 20, 2015, 8:12 AM), http://profootballtalk.nbcsports.com/2015/04 /20/marijuana-testing-window-opens-today/, archived at http://perma .cc/DU9Z-RYGW.
- 55 *ld.*
- 56 Mike Florio, *NFLPA gives players 30-day marijuana warning*, ProFootballTalk (Mar. 19, 2015, 3:27 PM), http://profootballtalk.nbcsports.com /2015/03/19/nflpa-gives-players-30-day-marijuana-warning/, *archived at* http://perma.cc/Q4PC-NUEN.
- 57 See Ben Volin, How did Aaron Hernandez not fail NFL drug tests?, Bos. Globe, Apr. 4, 2015, http://www.bostonglobe.com/sports /2015/04/04/how-did-aaron-hernandez-not-fail-nfl-drug-tests/ NXI7edYeTLKFhJlyfe0s1M/story.html, archived at http://perma.cc/DMU4 -3GGX.
- 58 NFL PES Policy, § 2.1.
- 59 See John A. Lombardo, MD, Max Sports Medicine OhioHealth, http://maxsportscenter.com/Meet-Our-Team/John-A-Lombardo,-MD (last visited Aug. 31, 2015), archived at http://perma.cc/872S-R7C9.
- 60 NFL PES Policy, § 2.1.
- 61 NFL PES Policy, §§ 2.2, 2.3, 2.4.
- 62 NFL Substance Abuse Policy, § 1.1.1.
- 63 NFL Substance Abuse Policy, § 1.1.2.
- 64 Selected by the medical director, treating clinicians are responsible for administering the treatment plans for players assigned to them. NFL Substance Abuse Policy, § 1.1.3.
- 65 Each NFL club must designate one of its affiliated physicians as its team physician for substance abuse matters. NFL Substance Abuse Policy, § 1.1.4. The team substance abuse physician consults and coordinates club-level aspects of the player's treatment program, including the prescription or prohibition of certain medications necessary to facilitate compliance with the treatment program. *Id.*
- 66 The chief forensic toxicologist, jointly selected by the NFLMC and NFLPA, is responsible for laboratory evaluation of urine samples, providing scientific advice on toxicology matters, scientific interpretation of positive drug findings, and providing forensic testimony as needed. NFL Substance Abuse Policy, § 1.1.5.
- 67 "The NFL and NFLPA shall jointly agree upon one or more Collection Vendors to be responsible for specimen collection, storage and transportation to the designated laboratory." NFL Substance Abuse Policy, § 1.1.6.
- 68 Club physicians facilitate players' entrance into the Intervention Program on a self-referral basis. *See* NFL Substance Abuse Policy, § 1.4.1.
- 69 NFL PES Policy, Appendix I; NFL Substance Abuse Policy, Appendix F.
- 70 *ld.*
- 71 *ld.*
- 72 NFL Substance Abuse Policy at p. 1.
- 73 *Id.*
- 74 NFL Substance Abuse Policy, § 1.4.1.
- 75 NFL Substance Abuse Policy, § 1.5.1(a).
- 76 *ld.*
- 77 Id.
- 78 NFL Substance Abuse Policy, § 1.5.1(b).
- 79 *ld.*
- 80 NFL Substance Abuse Policy, § 1.5.2(a).
- 81 NFL Substance Abuse Policy, § 1.5.2(d).
- 82 *ld.*

- 83 NFL PES Policy, § 6.
- 84 "[S]ufficient credible evidence includes but is not limited to: criminal convictions or plea arrangements; admissions, declarations, affidavits, authenticated witness statements, corroborated law enforcement reports or testimony in legal proceedings; authenticated banking, telephone, medical or pharmacy records; or credible information obtained from Players who provide assistance[.]" NFL PES Policy, § 3.1, n. 4.
- 85 Spotrac.com provides a list of NFL suspensions. NFL Fines & Suspensions 2016, Spotrac, http://www.spotrac.com/nfl/fines-suspensions/ (last visited Jan. 23, 2017), archived at https://perma.cc/KAK9-63FG.
- 86 As stated above, Spotrac.com provides a list of NFL suspensions. See NFL Fines & Suspensions 2015, Spotrac, http://www.spotrac.com/ nfl/fines-suspensions/2015/ (last visited Mar. 10, 2016), archived at https://perma.cc/R3K4-FB74; NFL Fines & Suspensions 2014, Spotrac, http://www.spotrac.com/nfl/fines-suspensions/2014/ (last visited Mar. 10, 2016), archived at http://perma.cc/4VCB-PSCM. Additional research was then done on each player on the list to determine the reported cause of the suspension.
- 87 NFL PES Policy, § 14.
- 88 See id., citing 2011 NFL CBA, Art. 4, § 9. See also Chris Deubert, Glenn M. Wong, John Howe, All Four Quarters: A Retrospective and Analysis of the 2011 Collective Bargaining Process and Agreement in the National Football League, 19 UCLA Ent. L. Rev. 1, 48-51 (2012) discussing clubs' efforts to recoup portions of bonus money already paid to players); Chris Deubert, Glenn M. Wong, Understanding the Evolution of Signing Bonuses and Guaranteed Money in the National Football League: Preparing for the 2011 Collective Bargaining Negotiations, 16 UCLA Ent. L. Rev. 179, 202-26 (2009) (same).
- 89 See 2011 NFL CBA, At. 4, § 9(g) (discussing voiding of guarantees).
- 90 NFL PES Policy, § 1.4.1.
- 91 See Spotrac.com, supra note 86.
- 92 *Id.*
- 93 NFL Substance Abuse Policy, § 2.2.
- 94 *ld.*
- 95 *ld.*
- 96 Id. at § 2.3.
- 97 *ld.*
- 98 *ld.*
- 99 NFL PES Policy, § 12; NFL Substance Abuse Policy, § 1.2.
- 100 NFL PES Policy, § 12.1.
- 101 NFL PES Policy, § 12.
- 102 NFL PES Policy, § 12.2.
- 103 NFL Substance Abuse Policy, § 1.2.1.
- 104 *ld*.
- 105 NFL Substance Abuse Policy, § 1.2.3.
- 106 "Any and all drugs or substances included on Schedules I and II of the Code of Federal Regulations' Schedule of Controlled Substances . . . shall be considered Drugs of Abuse covered by the Program," in addition to synthetic and natural marijuana, cocaine, LSD, opiates, MDMA, GHB, and PCP (and their analogues). MLB Joint Program, § 2(A).
- 107 "Any and all anabolic androgenic steroids covered by Schedule III of the Code of Federal Regulations' Schedule of Controlled Substances ... and [certain enumerated] categories of hormones and agents with antiestrogenic activity ... shall be considered Performance Enhancing Substances covered by the Program. Anabolic androgenic steroids, hormones, and agents with antiestrogenic activity, that may not be lawfully obtained or used in the United States (including, for example, "designer steroids" and peptide hormones) also shall be considered Performance Enhancing Substances irrespective of whether they are covered by Schedule III." MLB Joint Program, § 2(B). Human Growth Hormone (hGH) is explicitly listed as a PED. *Id.*
- 108 Stimulants are defined in the Joint Program by an exhaustive list of 56 substances, including amphetamine, ephedrine, and methamphetamine. MLB Joint Program, § 2(C).

- 109 MLB Joint Program, § 2(D). "DHEA is a hormone that is naturally made by the human body. . . . Athletes and other people use DHEA to increase muscle mass, strength, and energy." *DHEA*, Medline Plus — U.S. Nat'l Library of Med., http://www.nlm.nih.gov/medlineplus/druginfo/ natural/331.html#Description (last visited Aug. 31, 2015), *archived at* http://perma.cc/R76C-YR75. As recently as 2009, MLB was the only of the big four American professional sports leagues to allow DHEA. *See* Jeff Passan, *Baseball still allows the steroid DHEA*, Yahoo! Sports, May 14, 2009, http://sports.yahoo.com/mlb/news?slug=jp-dhealegal051409, *archived at* http://perma.cc/5WJP-WSL8. MLB and the MLBPA often fought over inclusion of DHEA on the prohibited substance list, *see id.*, which may explain why DHEA was included in its own category when MLB finally added it to the list.
- 110 MLB Joint Program, § 2(E).
- 111 *ld.*
- 112 MLB Joint Program, § 3(A)(1).
- 113 *ld.*
- 114 MLB Joint Program, § 3(A)(3).
- 115 MLB Joint Program, § 3(F)(1). This situation is known as an "analytical positive."
- 116 MLB Joint Program, § 3(F)(2).
- 117 MLB Joint Program, § 3(F)(3).
- 118 MLB Joint Program, § 7(G)(2). Suspensions under this provision of the Joint Program do not follow a specified punishment schedule; they may, however, qualify as predicate offenses that increase the punishment for subsequent violations. See MLB Joint Program, § 7(A).
- 119 MLB Joint Program, § 3(A)(1).
- 120 MLBPA, MLB Announce Details of New Labor Agreement, MLBPA (Dec. 2, 2016), http://www.mlbplayers.com/ViewArticle.dbml?DB_0EM _ID=34000&ATCLID=211336390, archived at https://perma.cc/4XUA -2DAW.
- 121 Id.; MLB Joint Program, § 3(A)(2).
- 122 MLB Joint Program, § 3(A)(3)(a).
- 123 MLB Joint Program, § 3(A)(3). Of those 900 hGH tests, 500 are conducted during the season and 400 are performed during the off-season. MLB Joint Program, § 3(A)(3)(b)–(c); *MLBPA, MLB Announce Details of New Labor Agreement*, MLBPA (Dec. 2, 2016), http://www.mlbplayers.com/ ViewArticle.dbml?DB_0EM_ID=34000&ATCLID=211336390, archived at https://perma.cc/4XUA-2DAW.
- 124 See MLB Joint Program, § 3(A)(3).
- 125 Independent Program Administrator Issues Annual Report, Major League Baseball (Dec. 2, 2016), http://www.mlbplayers.com/ViewArticle.dbml ?SPID=181313&ATCLID=211336296&DB_0EM_ID=34000, archived at https://perma.cc/2PPQ-S397.
- 126 *ld.*
- 127 Id.
- 128 MLB Joint Program, § 3(C)(1). However, the party receiving the notification may dispute the reasonable cause basis, in which case the Arbitration Panel Chair will determine whether reasonable cause exists. MLB Joint Program, § 3(C)(1).
- 129 MLB Joint Program, §§ 3(D)(1)–(2). These follow-up tests do not count toward the 3,200 random urine tests or 400 random hGH tests otherwise permitted under the Joint Program. *Id.*
- 130 MLB Joint Program, §§ 3(B), 3(C)(2)(a).
- 131 MLB Joint Program, § 4(A).
- 132 MLB Joint Program, § 4(B)(1).
- 133 MLB Joint Program, § 1(A)(1).
- 134 MLB Joint Program, § 1(A)(2).
- 135 MLB Joint Program, §§ 1(B)(1)–(2). The Treatment Board made headlines in 2015 after deciding not to suspend former Los Angeles Angels (and current Texas Rangers) player Josh Hamilton. Hamilton, who had struggled with cocaine and alcohol addiction in the past, confessed to Major League Baseball in February that he had suffered a relapse

in his sobriety in an incident involving cocaine. Matt Schiavenza, Josh Hamilton's Relapse Reveals Baseball's Double Standard on Drugs, Atlantic, Apr. 4, 2015, http://www.theatlantic.com/entertainment/archive /2015/04/josh-hamiltons-relapse-reveals-baseballs-hypocrisy-on-drugs /389685/, archived at http://perma.cc/WXP8-M4JP. Because Hamilton self-reported the incident and had not failed a drug test since 2004, he appeared to technically qualify as a first-time offender under the Joint Program. See Jeff Todd, Josh Hamilton Facing Discipline for Drug of Abuse, MLB Trade Rumors (Feb. 25, 2015), http://www.mlbtraderumors .com/2015/02/josh-hamilton-meeting-with-mlb-regarding-disciplinary -matter.html, archived at https://perma.cc/SDB9-Y4K9; Cliff Corcoran, Report: Josh Hamilton's Career Hits Roadblock as He Relapses on Drugs, Sports Illustrated, Feb. 26, 2015, http://www.si.com/mlb/2015/02/25/ josh-hamilton-angels-relapse-drugs, archived at http://perma.cc/EWL4 -U5AT. However, MLB argued that Hamilton had violated his treatment program, which dated back as far as 2003 when Hamilton was in the minor leagues with the Tampa Bay Rays. Michael O'Keefe & Teri Thompson, Arbitrator Rules for Josh Hamilton, Angels Outfielder Will Not Be Suspended by MLB for Substance Abuse Relapse, N.Y. Daily News, Apr. 3, 2015, http://www.nydailynews.com/sports/baseball/arbitrator -rules-josh-hamilton-angel-dodges-suspension-article-1.2172441, archived at http://perma.cc/L7UN-MAX5. Hamilton and his camp, meanwhile, argued that he had faithfully followed his treatment program, which included counseling and drug testing, and he had a "one-night slip which he immediately self-reported." Id. Ultimately, an arbitrator ruled that Hamilton's conduct did not violate his treatment program and MLB thus could not suspend or impose any discipline on him. Ted Berg, Josh Hamilton Will Not Be Suspended for Reported Offseason Drug Relapse, USA Today, Apr. 3, 2015, http://ftw.usatoday.com/2015/04/josh -hamilton-los-angeles-angels-suspension-drug-relapse-mlb, archived at https://perma.cc/W8QC-GFM3 (quoting MLB's statement on the matter); see also MLB Joint Program, § 4(C)(3).

- 136 MLB Joint Program, § 1(A)(2)(g).
- 137 MLB Joint Program, § 3(I)(1).
- 138 MLB Joint Program, § 3(I)(3).
- 139 MLB Joint Program, § 4.
- 140 MLB Joint Program, § 4(B)(1).
- 141 *ld.*
- 142 MLB Joint Program, §§ 7(A)(1)–(3), 7(E)(1)–(3).
- 143 MLB Joint Program, § 7(F)(1)-(2).
- 144 MLB Joint Program, § 7(B)(1)–(4); *MLBPA, MLB Announce Details of New Labor Agreement*, MLBPA (Dec. 2, 2016), http://www.mlbplayers.com/ ViewArticle.dbml?DB_0EM_ID=34000&ATCLID=211336390, archived at https://perma.cc/4XUA-2DAW.
- 145 MLB Joint Program, § 7(B)(1)–(4).
- 146 MLB Joint Program, §§ 7(F)(1), (3).
- 147 MLB Joint Program, § 7(C)(1)-(4).
- 148 MLB Joint Program, § 7(E)(1)–(3).
- 149 MLB Joint Program, §§ 7(F)(1), (3).
- 150 MLB Joint Program, § 7(D)(1)–(5).
- 151 Additional failures to comply with the treatment program results in further discipline at the Commissioner's discretion. MLB Joint Program, § 7(C)(5).
- 152 MLB Joint Program, §§ 7(F)(1), (3).
- 153 MLB Joint Program, § 7(E)(1)–(3). However, absent a conviction, players are not subject to suspension for the use or possession of marijuana, hashish, or synthetic THC. MLB Joint Program, § 7(D)(5). Also, drug of abuse violations do not include alcohol or alcohol-related (e.g., DUI) violations.
- 154 *DHEA*, Medline Plus U.S. Nat'l Library of Med., http://www.nlm.nih .gov/medlineplus/druginfo/natural/331.html#Description (last visited Aug. 31, 2015), *archived at* http://perma.cc/R76C-YR75.
- 155 DHEA is specifically exempt from the term "anabolic steroid" in the Controlled Substances Act. 21 U.S.C. § 802(41)(A).

- 156 See, e.g., DHEA, Walgreens, http://www.walgreens.com/store/c/dhea/ ID=361725-tier3 (last visited Aug. 31, 2015), archived at http://perma .cc/7E6P-PH4Y (listing DHEA for sale); DHEA, GNC, http://www.gnc .com/Vitamins/Specialty-Supplements/DHEA/family.jsp?categoryId =2166425&sr=1&origkw=dhea (last visited Aug. 31, 2015), archived at http://perma.cc/F79Z-K7WK (same).
- 157 See MLB Joint Program, § 2(D); NFL Steroid Policy, App. A—List of Prohibited Substances; 201 NBA CBA, Ex. I-2—Prohibited Substances; The World Anti-Doping Code, WADA (2015), https://wada-main-prod.s3 .amazonaws.com/resources/files/wada-2015-prohibited-list-en.pdf, archived at http://perma.cc/P2KM-KKKB. The NHL substantially uses the WADA Code.
- 158 MLB Joint Program, § 5(B)(1).
- 159 MLB Joint Program, § 5(B)(4).
- 160 MLB Joint Program, § 5(D)(1).
- 161 $\,$ Id. Clubs must then keep that information confidential. See MLB Joint Program, § 5(B)(1).
- 162 MLB Joint Program, § 5(C).
- 163 MLB Joint Program, § 5(C)(1).
- 164 MLB Joint Program, § 5(E).
- 165 NBA CBA, Art. XXXIII § 16.
- 166 NBA CBA, Art. XXXIII, § 4(a).
- 167 NBA CBA, Art. XXXIII, § 4(d)(i).
- 168 NBA CBA, Art. XXXIII, § 4(d)(ii).
- 169 NBA CBA, Art. XXXIII, § 4(d)(vi).
- 170 NBA CBA, Art. XXXIII, § 4(d)(iii).
- 171 NBA CBA, Art. XXXIII, § 4(d)(iv).
- 172 NBA CBA, Art. XXXIII, § 4(d)(v).
- 173 NBA CBA, Art. XXXIII, § 5(a).
- 174 NBA CBA, Art. XXXIII, § 6(a). Off-season urine samples are only tested for SPEDs and diuretics. *Id.*
- 175 NBA CBA, Art. XXXIII, § 14(a).
- 176 NBA CBA, Art. XXXIII, § 6(a).
- 177 NBA CBA, Art. XXXIII, § 5(a). "In evaluating the information presented to him, the Independent Expert shall use his independent judgment based upon his experience in substance abuse detection and enforcement." 2017 NBA CBA, Art. XXXIII, § 5(b).
- 178 *ld.*; 2017 NBA CBA, Ex. I-1.
- 179 NBA CBA, Art. XXXIII, § 2(a). In addition to generally managing and overseeing the Program, the Medical Director is expressly responsible for selecting and supervising counselors (preferably, retired NBA players) and other personnel necessary for the effective implementation of the Program and evaluating and treating players subject to the Program. *Id.*
- 180 NBA CBA, Art. XXXIII, § 2(b).
- 181 NBA CBA, Art. XXXIII, § 2(c).
- 182 NBA CBA, Art. XXXIII, § 2(e).
- 183 NBA CBA, Art. XXXIII, § 2(g).
- 184 Email from David Weiss, Associate Vice President and Assistant General Counsel, NBA, to Christopher R. Deubert (Sep. 1, 2015).
- 185 *ld.*
- 186 *ld.*
- 187 NBA CBA, Art. XXXIII, § 1(f); Art. XXXIII, § 7.
- 188 NBA CBA, Art. XXXIII, § 6(b)(i).
- 189 NBA CBA, Art. XXXIII, 7(a).
- 190 NBA CBA, Art. XXXIII, § 1(k).
- 191 NBA CBA, Art. XXXIII, § 8(c).
- 192 *ld.*
- 193 *ld.*
- 194 NBA CBA, Art. XXXIII, § 8(a).
- 195 NBA CBA, Art. XXXIII, § 1(s).
- 196 NBA CBA, Art. XXXIII, § 9(b).

- 197 *ld.*
- 198 NBA CBA, Art. XXXIII, § 9(a).
- 199 See 2017 NBA CBA, Art. XXXIII, § 1(b) ("A player may not Come Forward Voluntarily for the use of a SPED").
- 200 NBA CBA, Art. XXXIII, § 6(b)(i).
- 201 NBA CBA, Art. XXXIII, § 10(a)(ii)(1).
- 202 NBA CBA, Art. XXXIII, § 10(a)(ii)(2).
- 203 See 2017 NBA CBA, Art. XXXIII, § 6(c); Art. XXXIII,§ 11(a).
- 204 NBA CBA, Art. XXXIII, § 10(a)(ii)(1).
- 205 NBA CBA, Art. XXXIII, § 10(a)(ii)(2).
- 206 NBA CBA, Art. XXXIII, § 7(a)(iv).
- 207 NBA CBA, Art. VI, § 14.
- 208 NBA CBA, Art. XXXIII, § 8(c)(A).
- 209 NBA CBA, Art. XXXIII, § 8(c)(B).
- 210 NBA CBA, Art. XXXIII, § 8(c)(C).
- 211 NBA CBA, Art. XXXIII, § 8(c)(D).
- 212 NBA CBA, Art. XXXIII § 8(a)(iii).
- 213 NBA CBA, Art. XXXIII, § 9(b)(A).
- 214 NBA CBA, Art. XXXIII, § 9(b)(B).
- 215 NBA CBA, Art. XXXIII, § 9(b)(C).
- 216 NBA CBA, Art. XXXIII § 9(a).
- 217 See 2017 NBA CBA, Art. XXXIII, § 1(b) ("A player may not Come Forward Voluntarily for the use of a SPED").
- 218 NBA CBA, Art. XXXIII § 3(a).
- 219 *ld.*
- 220 NBA CBA, Art. XXXIII § 3(b).
- 221 The list itself does not appear to be publicly available; however, the parties agreed by letter agreement accompanying the 2013 CBA to include on the Prohibited Substances List "illegal' stimulants and amphetamines . . . that are relevant to the sport of hockey." NHL CBA, Issues Related to Article 47 of the CBA Letter Agreement.
- 222 NHL CBA, Letter Agreement, Don Zavelo, General Counsel, NHLPA, to William L. Daly, Deputy Commissioner, NHL re: Issues Related to Article 47 of the CBA (Feb. 15, 2013).
- 223 NHL/NHLPA, Substance Abuse and Behavioral Program Ex. A (Sep. 1996).
- 224 See, e.g., Mark Craig, Deer-Antler Spray Latest 'Thorny' Issue in Athlete Supplements, Star Trib., Jul. 22, 2013, http://www.startribune.com /sports/vikings/216523471.html, archived at http://perma.cc/RUG5 -CCM9 ("The NHL and NBA don't test blood, although the NBA reportedly is getting closer to doing so."); Bill Simmons, Daring to Ask the PED Question, Grantland, Feb. 1, 2013, http://grantland.com/features/daring -ask-ped-question/, archived at https://perma.cc/Y3A6-52WZ ("We look the other way when the MLB, NFL, NBA and NHL players associations keep blocking blood testing in their respective sports (MLB finally started blood testing for the 2013 season)."). Additionally, while the NHL discussed implementing hGH testing over the summer of 2013, it had no policy in place as of April 2015. See Mark Zwolinski, NHL Delays Testing for Human Growth Hormone Until 2014-15 Season at Earliest, Toronto Star, Aug. 14, 2013, http://www.thestar.com/sports/hockey/2013/08 /14/nhl_delays_testing_for_human_growth_hormone_until_201415 _season_at_earliest.html#, archived at http://perma.cc/X89Z-RBYJ; Andrew Kehapril, N.B.A. to Test Players for H.G.H. Starting Next Season, N.Y. Times, Apr. 17, 2015, http://www.nytimes.com/2015/04/17/sports /basketball/nba-to-test-players-for-hgh-starting-next-season.html, archived at http://perma.cc/W7VM-85VS. Growth hormone is currently on WADA's 2015 Prohibited Substances List from which NHL chooses its prohibited substances, however, See The World Anti-Doping Code, WADA (2015), https://wada-main-prod.s3.amazonaws.com/resources /files/wada-2015-prohibited-list-en.pdf, archived at http://perma.cc/ P2KM-KKKB.
- 225 See 2013 NHL CBA, Art. 47 § 6(d). The determination of whether a player had an unexcused failure or refusal or whether a player

attempted to substitute, dilute, mask, or adulterate a specimen rests with the Program Doctors, subject to appeal to the Impartial Grievance Arbitrator. *Id.*

- 226 NHL CBA, Art. 47.9(e).
- 227 NHL CBA, Art. 47, § 8(b).
- 228 ld.
- 229 NHL CBA, Art. 47, § 8(c).
- 230 Id.
- 231 NHL/NHLPA, Substance Abuse and Behavioral Program Ex. A (Sept. 1996).
- 232 NHL/NHLPA, Substance Abuse and Behavioral Program Ex. A (Sept. 1996). For example, the cutoff level for marijuana metabolites is 50 ng/ml for the initial test. If a specimen is identified as positive, then the program doctors should confirm the presence of marijuana metabolites using gas chromatography/mass spectrometry techniques at the cutoff value of 15 ng/ml. *Id.*
- 233 NHL CBA, Art. 47, § 6(a).
- 234 *Id.*
- 235 See 2013 NHL CBA, Art. 47, § 6.
- 236 See id.
- 237 NHL CBA, Art. 47, § 6(c).
- 238 *ld.*
- 239 NHL CBA, § 47.4(b).
- 240 *ld.*
- 241 Mike Halford, Report: NHL to Implement Comprehensive Cocaine Testing By End of Season, Pro Hockey Talk (Nov. 23, 2015, 2:31 PM), http://nhl .nbcsports.com/2015/11/23/report-nhl-to-implement-comprehensive -cocaine-testing-by-end-of-season/, archived at http://perma.cc/A66B -AL8Q.
- 242 Id.
- 243 NHL/NHLPA, Substance Abuse and Behavioral Program 4 (Sept. 1996).
- 244 NHL/NHLPA, Substance Abuse and Behavioral Program 4 (Sept. 1996). Players may voluntarily seek treatment through the SABH Program or Team Personnel (club physicians, trainers, coaches, and managers) may refer a player to the Program. See id. at 4.
- 245 NHL CBA, Art. 47 § 2.
- 246 *ld.*
- 247 NHL/NHLPA, Substance Abuse and Behavioral Program 2 (Sept. 1996). The SABH is available as Exhibit C to the Notice of Removal (ECF No. 1) in the case of Boogaard v. Nat'l Hockey League, No. 1:13-cv-04846 (N.D. III. July 3, 2013).
- 248 *ld.*
- 249 NHL CBA, Art. 47 § 10.
- 250 *ld.*
- 251 NHL/NHLPA, Substance Abuse and Behavioral Program 1 (Sept. 1996).
- 252 *ld.* at 3.
- 253 NHL CBA, Art. 47.7(a)(i).
- 254 NHL CBA, Art. 47.7(a)(ii).
- 255 NHL CBA, Art. 47.7(a)(iii).
- 256 Andrew DeWitt, Are NHL players using PEDs? Jonathan Toews says naive to say no, CBS Sports (Aug. 16, 2013, 10:49 AM), http://www .cbssports.com/nhl/eye-on-hockey/23177818/are-nhl-players-using -peds-jonathan-toews-says-naive-to-think-no, archived at http://perma .cc/4GMB-ENEH.
- 257 NHL/NHLPA, Substance Abuse and Behavioral Program 4 (Sept. 1996).
- 258 *ld.*
- 259 *ld.*
- 260 *ld.*
- 261 *ld.*
- 262 *Id.* at § 4(C).
- 263 NHL CBA, Art. 18-A.2.

- 264 Id. at Art. 18-A.4.
- 265 NHL CBA, Art. 47 § 11. If the grievance is upheld, the Arbitrator can fashion an appropriate remedy pursuant to traditional standards of contract law. *Id.*
- 266 NHL/NHLPA, Substance Abuse and Behavioral Program Ex. B (Sept. 1996).
- 267 See id. at Ex. C.
- 268 Id. at 2.
- 269 CFL CBA, § 32.02.
- 270 CFL CBA, § 32.01.
- 271 CFL PED Policy, Appendix D. HGH is included on the list. Id.
- 272 CFL PED Policy, § 2.01.3.
- 273 CFL PED Policy, § 7.02.
- 274 CFL PED Policy, §§ 6.01, 6.02.
- 275 CFL, CFLPA Agree on New Drug Policy for the 2016 Season, Can. Football League, http://www.cfl.ca/2016/04/21/cfl-cflpa-agree-new -drug-policy-2016-season/ (last visited Apr. 25, 2016), archived at https://perma.cc/4QY4-2SGL; 2016 CFL PED Policy, App. C.
- 276 CFL PED Policy, § 5.04.2.
- 277 CFL PED Policy, § 5.04.3.
- 278 CFL PED Policy, § 5.04.1.
- 279 ld.
- 280 CFL PED Policy, § 3.
- 281 The Designated Medical Authority is an individual jointly appointed by the CFL and CFLPA who has sole responsibility for reviewing Therapeutic Use Exemption applications. 2016 CFL PED Policy, § 5.03.1.
- 282 CFL PED Policy, § 5.03.4.
- 283 CFL PED Policy, § 9.01.1.
- 284 *ld.*
- 285 CFL, CFLPA Agree on New Drug Policy for the 2016 Season, Can. Football League, http://www.cfl.ca/2016/04/21/cfl-cflpa-agree-new -drug-policy-2016-season/ (last visited Apr. 25, 2016), archived at https://perma.cc/4QY4-2SGL; CFL PED Policy, § 7.03
- 286 *ld.*
- 287 *ld.*
- 288 *ld.*
- 289 CFL PED Policy, § 9.01.2.
- 290 CFL PED Policy, § 4.01.1.
- 291 CFL PED Policy, § 4.01.2.
- 292 *Id*.
- 293 MLS Substance Abuse Policy, § VI(A).
- 294 *ld.*
- 295 Id. at § VI(B).
- 296 Id. at § VI(C).
- 297 Id. at § VI(D).
- 298 *Id.* at § III(C) ("All specimen collection shall be done in accordance with the WADA Guidelines for Urine Sample Collection.")
- 299 Id. at § V(A).
- 300 Id. at § IX(A).
- 301 Id. at § VII(B).
- 302 Id. at § VII(A)(1).
- 303 See id.
- 304 *Id.* at § III(A).
- 305 *ld.*
- 306 *ld.*
- 307 *Id.* at § V.
- 308 *Id.* at § V(C).
- 309 *ld.*
- 310 Id. at § V(D).

- 311 Id.
- 312 This information was provided by the MLSPU.
- 313 MLS Substance Abuse Policy, § X(A).
- 314 See id. at § X(B) (providing different discipline scheme for players who have tested positive for PEDs).
- 315 Id. at § X(A).
- 316 *ld.*
- 317 Id. at § X(A)(3).
- 318 See id. at § X(A).
- 319 *ld.* at § X (B).
- 320 See id. at § VIII(D); § IX (B).
- 321 See id. at § XII(B)(1).
- 322 Id.
- 323 Id.
- 324 Id.
- 325 NBA CBA, Art. XXXIII, § 9(a).
- 326 See 2017 NBA CBA, Art. XXXIII, § 1(b) ("A player may not Come Forward Voluntarily for the use of a SPED").
- 327 See 2017 NBA CBA, Art. XXXIII, § 9.
- 328 See Alfhid Gronbladh, Erik Nylander, Mathias Halberg, The neurobiology and addiction potential of anabolic androgenic steroids and the effects of growth hormone, 126 Brain Res, Bulletin 127, 129-30 (2016) (discussing PES dependence); Harrison G. Pope et al., Adverse Health Consequences of Performance-Enhancing Drugs: An Endocrine Society Specific Statement, 35 Endocrine Reviews 341, 355 (2013) (discussing PES dependence); Gen Kanayama et al., Treatment of anabolicandrogenic steroid dependence: Emerging evidence and its implications, 109 Drug & Alcohol Dependence 6, 7 (2010) ("[PES usage] can cause a dependence syndrome where individuals may use these drugs almost continuously for years, often despite adverse effects"); Gen Kanayama et al., Anabolic-androgenic steroid dependence: an emerging disorder, 104 Addiction 12, 1966-78 (2009) (finding that About 30% of anabolic steroid users appear to develop a dependence syndrome, characterized by chronic steroid use despite adverse effects on physical, psychosocial, or occupational functioning).
- 329 See Anders Hakansson et al., Anabolic androgenic steroids in the general population: user characteristics and associations with substance use, 18 Eur. Addict Res. 2 (2012) ("[PED] use was most strongly associated with a lifetime history of illicit drug use and the misuse of prescription drugs."); Michael Bahrke et al., Risk factors associated with anabolic-androgenic steroid use among adolescents, 29 Sports Med. 6 (2000) ("studies have reported that the likelihood of using [PEDs] was associated with the use of several other drugs including marijuana, cocaine, stimulants, relaxants, heroin, caffeine, alcohol, cigarettes and smokeless tobacco.")
- 330 Alfhid Gronbladh, Erik Nylander, Mathias Halberg, *The neurobiology and addiction potential of anabolic androgenic steroids and the effects of growth hormone*, 126 Brain Res. Bulletin 127, 130 (2016) ("there is a strong association between [PES] dependence and opioid dependence"); Harrison G. Pope et al., *Adverse Health Consequences of Performance-Enhancing Drugs: An Endocrine Society Specific Statement*, 35 Endocrine Reviews 341, 348–49 (2013).
- 331 Gen Kanayama et al., Treatment of anabolic-androgenic steroid dependence: Emerging evidence and its implications, 109 Drug & Alcohol Dependence 6, 8–9 (2010).
- 332 Id. at 9.
- 333 Harrison G. Pope et al., Adverse Health Consequences of Performance-Enhancing Drugs: An Endocrine Society Specific Statement, 35 Endocrine Reviews 341, 348–49 (2013); Kanayama et al., supra n. 331 at 10.
- 334 Pope et al., supra n. 330 at 353; Kanayama et al., supra n. 331 at 10.
- 335 See Daria Paicentino et al., Anabolic-androgenic Steroid Use and Psychopathology in Athletes. A Systematic Review, 13 Current Neuropharmacology 101 (2015).

- 336 Pope et al., *supra* n. 33 at 348-49; Kanayama et al., *supra* n. 331 at 10.
- 337 Gronbladh, Nylander, Halberg, *supra* n. 330 at 130; Pope et al., *supra* n. 333 at 348-49.
- 338 Pope et al., *supra* n. 333 at 349; Kanayama et al., *supra* n. 333 at 349.
- 339 See Gronbladh, Nylander, Halberg, supra n. 330 at 133-34; Pope et al., supra n. 333 at 348-49; Kan ayama et al., supra n. 331 at 10; Harrison G. Pope, MD, MPH, McLean Hospital, http://www.mcleanhospital .org/biography/harrison-pope (last visited Dec. 15, 2016), archived at https://perma.cc/EK4G-7MWU ("Harrison G. Pope, MD, MPH, has conducted research in a wide range of areas in psychiatry and has authored more than 300 peer-reviewed papers. This work includes many publications on the diagnosis and treatment of psychotic disorders and major mood disorders, together with extensive research on eating disorders and related issues of body image in both women and men. More recently, Dr. Pope has also focused on substance abuse disorders, with emphasis on drugs such as cannabis, hallucinogens, ecstasy, and anabolic-androgenic steroids.").