NATIONAL FOOTBALL LEAGUE

POLICY ON
PERFORMANCE-ENHANCING
SUBSTANCES
2015

as agreed by the
National Football League Players Association
and the
National Football League Management Council
NATIONAL FOOTBALL LEAGUE
POLICY ON PERFORMANCE-ENHANCING SUBSTANCES

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(2015)
NATIONAL FOOTBALL LEAGUE
POLICY ON PERFORMANCE-ENHANCING SUBSTANCES

1. GENERAL STATEMENT OF POLICY

The National Football League Management Council and NFL Players Association (“NFLPA”) (collectively, the “Parties”) have jointly developed this Policy on Performance-Enhancing Substances (the “Policy”) to prohibit and prevent the use of anabolic/androgenic steroids (including exogenous testosterone), stimulants, human or animal growth hormones, whether natural or synthetic, and related or similar substances. For convenience, these substances, as well as masking agents or diuretics used to hide their presence, will be referred to as “Prohibited Substances.” These substances have no legitimate place in professional football. This Policy specifically means that:

-- **Players** may not, in the absence of a valid therapeutic use exemption (see Appendix I), have Prohibited Substances in their systems or supply or facilitate the distribution of Prohibited Substances to other Players.

-- **Coaches, Athletic Trainers, Club Personnel, or Certified Contract Advisors** may not condone, encourage, supply, or otherwise facilitate in any way the use of Prohibited Substances.

-- **Team Physicians** may not prescribe, supply, or otherwise facilitate a Player’s use of Prohibited Substances.

-- **All Persons**, including Players, are subject to discipline for violation of this Policy.

The Parties are concerned with the use of Prohibited Substances based on three primary factors:

*First*, these substances threaten the fairness and integrity of the athletic competition on the playing field. Players may use these substances for the purpose of becoming bigger, stronger, and faster than they otherwise would be. As a result, their use threatens to distort the results of games and League standings. Moreover, Players who do not wish to use these substances may feel forced to do so in order to compete effectively with those who do. This is obviously unfair to those Players and provides sufficient reason to prohibit their use.

*Second*, the Parties are concerned with the adverse health effects of using Prohibited Substances. Although research is continuing, steroid use has been linked to a number of physiological, psychological, orthopedic, reproductive, and other serious health problems, including heart disease, liver cancer, musculoskeletal growth defects, strokes, and infertility.

*Third*, the use of Prohibited Substances by Players sends the wrong message to young

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1 The list of Prohibited Substances is attached to this Policy at Appendix A. If the Parties mutually agree to modify the Prohibited Substances under this Policy, the Parties will immediately amend the list at Appendix A.

2 Unless specified otherwise herein, the term Player shall include the categories set forth in the Preamble to the Collective Bargaining Agreement as well as Players attending the annual scouting combines.
people who may be tempted to use them. NFL Players should not by their own conduct suggest that such use is either acceptable or safe, whether in the context of sports or otherwise.

The NFL Player Contract specifically prohibits the use of drugs in an effort to alter or enhance performance. The NFL Player Contract and the League’s Constitution and Bylaws require each Player to avoid conduct detrimental to the NFL and professional football or to public confidence in the game or its Players. The use of Prohibited Substances violates both these provisions. In addition, the Commissioner is authorized to protect the integrity of and public confidence in the game. This authorization includes the authority to forbid use of the substances prohibited by this Policy.

The Parties recognize that maintaining competitive balance among NFL clubs requires that all NFL Players be subject to the same rules and procedures regarding drug testing. The rules and procedures set forth herein are designed to protect the confidentiality of information associated with this Policy and to ensure the accuracy of test results, and the Parties intend that the Policy meets or exceeds all applicable laws and regulations related thereto. The Parties also recognize the importance of transparency in the Policy’s procedures, including the scientific methodologies that underlie the Policy, the appeals process and the basis for discipline imposed, and reaffirm their commitment to deterrence, discipline and a fair system of adjudication.

2. ADMINISTRATION OF THE POLICY

2.1 Independent Administrator

The Policy is conducted under the auspices of the NFL Management Council. It will be directed by the Independent Administrator on Performance-Enhancing Substances (“Independent Administrator”), a person or entity to be jointly selected by the Parties and for whose compensation (salary) the Parties shall have equal responsibility. Unless the Parties mutually determine otherwise, the Independent Administrator shall serve an initial one-year term, followed by a minimum three-year term. The Independent Administrator may be discharged by either Party at any time provided that written notice is given by the discharging party one year prior to discharge.

As soon as practicable, but no later than within six months of issuance of a notice of intent to discharge the Independent Administrator, the Parties will each identify a minimum of three successor candidates. The identified candidates will then be ranked by the Parties, the Chief Forensic Toxicologist and the Medical Advisor for the Policy and Program on Substances of Abuse. The top three candidates will be interviewed by the ranking group. Absent agreement on a successor, the Parties will alternately strike names from said list. The Party to strike a name first will be determined by the flip of a coin.

Subject to the terms of this Policy, the Independent Administrator shall have the sole discretion to make determinations, consistent with the terms of this Policy, concerning the:

(a) method by which Players will be subjected to testing each week;
(b) selection of Players to be tested each week and the dates on which tests will be administered;
(c) number and frequency of reasonable cause tests to be administered (subject to a maximum of 24 urine and/or blood tests per Player per year);
(d) number and timing of off-season tests to be administered (subject to a maximum of six urine and/or blood tests per Player);
(e) analysis of test results data over time;
(f) scheduling of medical evaluations associated with the possible use of Prohibited Substances;
(g) review and approval of “therapeutic use exemptions;”
(h) communication with and oversight of the Collection Vendor;
(i) finding that a Player has failed to cooperate with testing, attempted to dilute, tamper with, or substitute a specimen to defeat testing, or otherwise violated protocols; and
(j) certification of violations for disciplinary or administrative action.

In addition, the Independent Administrator will be available for consultation with Players and Club physicians; oversee the development of educational materials; participate in anti-doping research; and confer with the Chief Forensic Toxicologist.

Neither the NFL, the NFLPA, nor nor any NFL Member Club shall direct the specific testing schedule, decide which Players will be tested, or influence the Independent Administrator’s determination whether a potential violation has occurred and should be referred for further action.

The Independent Administrator (and any persons employed thereby) shall be a neutral party, and shall act in good faith and with equal obligation to the NFLPA and NFL. The Independent Administrator shall report equally, promptly and contemporaneously to both the NFLPA and NFL regarding all correspondence and relevant information, and seek guidance from both parties when exercising responsibilities under the Policy.

See Appendix B for further information on the Policy’s personnel.

2.2 Chief Forensic Toxicologist

The Chief Forensic Toxicologist shall be jointly selected by the Parties, and the Parties shall have equal responsibility for his or her compensation (salary). Unless the Parties mutually determine otherwise, the Chief Forensic Toxicologist shall serve an initial one-year term, followed by a minimum three-year term. The Chief Forensic Toxicologist may be discharged by either Party at any time provided that written notice is given by the discharging party one year prior to discharge.

As soon as practicable, but no later than within six months of issuance of a notice of intent to discharge the Chief Forensic Toxicologist, the Parties will each identify a minimum of three successor candidates. The identified candidates will then be ranked by the Parties, the Independent Administrator and the Medical Advisor for the Policy and Program on Substances of Abuse, and the top three candidates will be interviewed by the ranking group. Absent agreement on a successor, the Parties alternately will strike candidates from said list. The party to strike a name first will be determined by the flip of a coin.

3 See Appendix I.
Consistent with the terms of this Policy, the Chief Forensic Toxicologist shall:

(a) audit the operation of the testing laboratories, including the implementation of procedures, laboratory analysis of specimens and documentation;
(b) consult with the Independent Administrator and Collection Vendor as appropriate;
(c) review and certify laboratory results; and
(d) provide advice and consultation to the Parties in connection with other matters including existing and proposed analytical methods and anti-doping research.

At the request of either Party, and upon notice to and approval from the other Party, the Chief Forensic Toxicologist may direct laboratory analysis of sports nutrition products or other substances. The Chief Forensic Toxicologist shall ensure that the results of such analysis shall be made known promptly, equally and contemporaneously to both the NFL and NFLPA. The Chief Forensic Toxicologist may also request permission from the Parties to direct laboratory analysis of sports nutrition products or other substances, and upon approval from the Parties, direct such analysis. The Chief Forensic Toxicologist shall ensure that the results of such analysis shall be made known promptly, equally and contemporaneously to both the NFL and NFLPA.

The Chief Forensic Toxicologist (and any persons employed thereby) shall be a neutral party, and shall act in good faith and with equal obligation to the NFLPA and NFL. The Chief Forensic Toxicologist shall report equally, promptly and contemporaneously to both the NFLPA and NFL regarding all correspondence and relevant information, and seek guidance from both parties when exercising responsibilities under the Policy.

See Appendix B for further information on the Policy’s personnel.

2.3 Collection Vendor

The NFL and NFLPA shall jointly agree upon a Collection Vendor to be responsible for specimen collection, storage and transportation to the designated laboratory. The Collection Vendor’s written protocols and chain-of-custody documents must ensure that best practices are utilized at all times in a manner consistent with generally accepted scientific principles relevant to the collection and storage of the types of substances tested for under this Policy. These collection protocols and chain-of-custody documents shall be reviewed and approved annually by the Parties, the Chief Forensic Toxicologist and Independent Administrator and may not be changed without approval of both Parties. Once approved, if the Chief Forensic Toxicologist or Independent Administrator seeks to make any additional modifications, he or she must immediately inform the Parties.

The Collection Vendor shall implement a training and certification process for all employees or agents involved in the collection of any sample under this Policy. For serum (blood) collection, such employee or agent of the Collection Vendor must be a properly trained and experienced phlebotomist with the appropriate certifications to draw blood under applicable laws and regulations. Upon request of either Party, the Collection Vendor shall provide the Parties with all information regarding its training and certification processes.
2.4 Accounting

Any service provider whose fees are shared by the Parties shall have an agreement setting forth with specificity the services being provided, the persons providing the services and any related fees or costs. The providers for which the NFLPA will equally share the salary costs are the Independent Administrator and the Chief Forensic Toxicologist. The Parties will equally share the costs and fees of the independent arbitrators. Each provider will periodically furnish the Parties with an itemization of the services provided and fees incurred. In addition, the NFL Management Council will provide on an annual basis documentation verifying that all fines imposed under the Policy were applied to the costs of the Policy.

3. Testing for Prohibited Substances

3.1 Types of Testing

All testing of Players for Prohibited Substances, including any pre-employment testing, is to be conducted pursuant to this Policy. All specimens will be collected by an authorized specimen collector under the authority of the Collection Vendor and analyzed at the appropriate laboratory (see Sections 3.2 and 3.4). As is the case in the employment setting, Players testing positive in a pre-employment setting will be subject to medical evaluation and clinical monitoring as set forth in Sections 3.1 and 4.3, and to the disciplinary steps outlined in Section 6.

Urine testing will take place under the following circumstances:

**Pre-Employment:** Pre-employment tests may be administered to free agent Players (whether rookies or veterans). In addition, testing will be conducted at the annual scouting combines.

**Annual:** All Players will be tested for Prohibited Substances at least once per League Year. Such testing will occur at training camp or whenever the Player reports thereafter, and will be deemed a part of his preseason physical.

**Preseason/Regular Season:** Each week during the preseason and regular season, ten (10) Players on every Club will be tested. By means of a computer program, the Independent Administrator will randomly select the Players to be tested from the Club’s active roster, practice squad list, and reserve list who are not otherwise subject to ongoing reasonable cause testing for performance-enhancing substances. The number of Players selected for testing on a particular day will be determined in advance on a uniform basis. Players will be required to provide a specimen whenever they are selected, without regard to the number of times they have previously been tested consistent with the limits set forth in the Policy.

**Postseason:** Ten (10) Players on every Club qualifying for the playoffs will be tested weekly so long as the Club remains active in the postseason. Players to be tested during the postseason will be selected on the same basis as during the regular season.

**Off-Season:** Players under contract who are not otherwise subject to reasonable cause testing may be tested during the off-season months at the discretion of the Independent
Administrator, subject to the collectively bargained maximum of six (including blood tests) off-season tests. Players to be tested in the off-season will be selected on the same basis as during the regular season, irrespective of their off-season locations. Any Player selected for testing during the off-season will be required to furnish a urine specimen at a convenient location acceptable to the Independent Administrator, subject to the qualification set forth in Section 3.2 for specimen collections occurring away from the Club facility. Only Players who advise in writing that they have retired from the NFL will be removed from the testing pool. If, however, a Player thereafter signs a contract with a Club, he will be placed back in the testing pool.

**Reasonable Cause Testing For Players With Prior Positive Tests Or Under Other Circumstances:** Any Player testing positive for a Prohibited Substance, including a Player who tested positive or for whom there is sufficient credible evidence\(^4\) of steroid involvement up to two football seasons prior to his applicable college draft or at a scouting combine, will be subject to evaluation by the Independent Administrator, after which the Independent Administrator may in his or her discretion place the Player into the reasonable cause testing program. Players placed into the program will be subject to testing both in-season and during the off-season at a frequency and duration determined by the Independent Administrator consistent with this Policy. Reasonable cause testing may also be required when, in the opinion of the Independent Administrator, he receives credible, verifiable documented information providing a reasonable basis to conclude that a Player may have violated the Policy or may have a medical condition that warrants further monitoring. If either Party asks the Independent Administrator for explanation of his/her decision to place a Player on reasonable cause testing based on credible information, he or she will promptly and fully provide the explanation to the Parties.

If a Player is placed into the reasonable cause testing program, the Independent Administrator in his or her discretion shall determine the type of testing (e.g., urine, blood, or both) and frequency of testing to which the Player will be subject consistent with this Policy. If the Independent Administrator recommends more than one blood serum test per week, he shall provide the Parties with a written explanation regarding why this frequency of testing is warranted prior to commencement of such testing.

Players who are placed into the reasonable cause program based on a violation of the Policy must remain in the program a minimum of two years or two full seasons, whichever is shorter, after which the Independent Administrator must either discharge the Player or notify him in writing that he will remain in the program subject to review at a later date. Players who enter the program based on other reasons may be discharged at any time but shall be advised in writing on an annual basis if they are required to remain in the program.

No Club may require any Player to submit to any form of testing not authorized by this Policy. In addition, Players on reasonable cause testing may be removed from their Club’s active roster and placed in the category of **Reserve/Non-Football Illness** if, after consultation with the Club physician and NFLPA Medical Director, it is the Independent Administrator in his or her discretion.

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\(^4\) 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 of the Policy.
Administrator’s opinion that such a step is medically necessary.

3.2 Notification and Collection Procedures

Specimens may be collected on any day of the week, except that the collection of blood specimens will be prohibited on game days. To ensure that specimens are properly collected and accurately attributable to the selected Player, and to prevent evasive techniques, specimens will be collected, stored and transported to the testing laboratory according to the protocols referenced in Section 2.3.

Specimen collections occurring at a Club facility, stadium or scouting combine venue will be conducted at the discretion of the Independent Administrator and Collection Vendor without advance notice to the Player. Upon notification that he has been selected for testing, the Player shall furnish a specimen to the authorized specimen collector as soon as possible, but in no event more than three (3) hours following notification. Until the specimen is provided, the collector shall maintain specific knowledge of the Player’s whereabouts and the Player may not leave the premises for any reason. If the collector reasonably believes that the Player is evading testing, he shall report the matter to the Collection Vendor and/or Independent Administrator for disciplinary review.

For specimen collections occurring away from the Club facility, the Independent Administrator and Collection Vendor may in their discretion contact the Player by telephone or voicemail or text message to notify him that he has been selected and schedule a collection time within twenty-four (24) hours at a site not more than forty-five (45) miles from the Player’s location. Players must provide accurate off-season contact information in the form of an accurate telephone number and address to the Independent Administrator prior to the conclusion of their Club’s playing season.

The Parties recognize that the collection protocols, policies and procedures exist for the purpose of ensuring the accuracy of test results and confidence in the testing methodology and processes.

3.3 Failure or Refusal to Test/Efforts to Manipulate Specimen or Test Result

An unexcused failure or refusal to appear for required testing, or to cooperate fully in the collection process, will warrant disciplinary action. (See Appendix H.) Any effort to substitute, dilute or adulterate a specimen, or to manipulate a test result to evade detection will be considered a violation of the Policy and may result in more severe discipline than would have been imposed for a positive test.

3.4 Testing Laboratories

The Independent Administrator will determine the most appropriate laboratory or laboratories to perform testing under the Policy. Currently, the UCLA Olympic Analytical Laboratory in Los Angeles and the Sports Medicine Research and Testing Laboratory in Salt Lake City have been approved to analyze specimens collected for Prohibited Substances. These laboratories have been accredited by ISO and the World Anti-Doping Association for anti-doping analysis and perform testing for the NCAA, the United States Anti-Doping Agency and other sports organizations.

Screening and confirmatory tests will be done on state-of-the-art equipment and will
principally involve use of GC/MS or LC/MS equipment. In addition, testing will be done for masking agents (including diuretics) as appropriate. The Parties shall, with the advice and consultation of the Chief Forensic Toxicologist and other advisors, endeavor to review the analytical methods to be utilized and make modifications as necessary in furtherance of the Policy.

Either Party will have the right to discharge a testing laboratory provided that written notice is provided by the discharging party six months prior to discharge. Upon issuance of a discharge notice, the Chief Forensic Toxicologist and Independent Administrator will recommend one or more potential successor laboratories after which the League, with appropriate consultation with and reasonable approval of the Players Association, will promptly select and engage the successor laboratory.

3.5 **Unknowning Administration of Prohibited Substances**

Players are responsible for what is in their bodies and a positive test will not be excused because a Player was unaware that he was taking a Prohibited Substance. Questions concerning dietary supplements should be directed to the Independent Administrator and/or the NFL Players Association’s Director of Drug Policies at [Contact Information] having a Player’s or Club’s medical or athletic training staff member approve or indicate that a supplement’s list of ingredients does not appear to contain a Prohibited Substance will not excuse a positive test result.

4. **PROCEDURES IN RESPONSE TO POSITIVE TESTS OR OTHER EVALUATION**

4.1 **Notice to Player**

Once a positive result is confirmed, the Independent Administrator will match the control identification number with the Player’s name, notify the Player in writing of the positive result and request that the Player call him to discuss the result.

4.2 **“B” Sample Analysis**

The NFLPA shall maintain a non-exclusive list of approved, independent board-certified forensic toxicologists (“Observing Toxicologists”), which shall be compiled in consultation with the Chief Forensic Toxicologist and which may not include any person affiliated with a commercial laboratory. If the Player wishes to have an independent toxicologist who is not on the NFLPA list observe the “B” bottle analysis, the independent toxicologist must sign an appropriate nondisclosure and confidentiality agreement with the applicable testing laboratory prior to scheduling the “B” sample analysis. Any Player who receives written notification of an “A” positive may either accept the result and discipline, await the results of the scheduled “B” sample analysis, or have an Observing Toxicologist witness the “B” sample analysis if he makes a written request to the Independent Administrator within five (5) business days of receiving the notification.

If observation is requested, the Independent Administrator will coordinate with the laboratory and designated Observing Toxicologist to schedule the “B” sample analysis to occur within seven (7) business days of the Player’s request. If observation is not requested, the laboratory will conduct the analysis as soon as is practicable.
The “B” sample analysis will be performed at the same laboratory that did the “A” sample analysis according to the established analytical procedures and by a technician other than the one performing the “A” confirmation test. The results will be reported to the Independent Administrator, who may review them with the Chief Forensic Toxicologist and the laboratory director as appropriate.

If the “B” sample analysis generates a positive result, and the Chief Forensic Toxicologist certifies that result, the Independent Administrator will provide written notice, together with a copy of the laboratory documentation, to the Player and Parties. (If the “B” bottle test does not confirm a positive result, only the Player will be notified in writing.) If the Player is subject to disciplinary action, the Management Council will notify him in writing with a copy to the Players Association.

With respect to Pre-Employment Testing, the procedure set forth above shall apply, except that: (a) the “B” test will be performed as soon as possible with no Observing Toxicologist permitted; and (b) upon confirmation of the positive test result, the Independent Administrator shall promptly notify the NFL Management Council and: (i) all Clubs in the case of a Combine test, or (ii) the requesting Club(s) in the case of a Free Agent test.

4.3 Medical Evaluation

A medical examination such as outlined in Appendix C may be required of any Player who tests positive. The Independent Administrator will arrange for the evaluation, and the results of this evaluation will be reported to the Player, the Independent Administrator and the Club physician. If medical treatment (including counseling or psychological treatment) is deemed appropriate, it will be offered to the Player. Players with a confirmed positive test result will also be placed on reasonable cause testing at a frequency to be determined by the Independent Administrator consistent with this Policy.

The Player is responsible for seeing that he complies with the arrangements of the Independent Administrator for an evaluation as soon as practicable after notification of a positive test. This requirement is in effect throughout the year.

5. DISCIPLINE FOR VIOLATIONS OF LAW AND OTHER DOCUMENTED EVIDENCE-BASED VIOLATIONS

Players or other persons within the NFL who: are convicted of or otherwise admit to a violation of law (including within the context of a diversionary program, deferred adjudication, disposition of supervision, or similar arrangement) relating to use, possession, acquisition, sale, or distribution of steroids, growth hormones, stimulants or related substances, or conspiring to do so; or are found through sufficient credible documented evidence (see footnote 4) to have used, possessed or distributed performance-enhancing substances, 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 the individual’s affiliation with an NFL Club.

Any suspension shall be without pay and served as set forth below. Longer suspensions may be imposed for repeat offenders. In addition, Players violating this Policy under this Section will be appropriately placed or advanced to the next disciplinary step. In this respect, Players are reminded of federal legislation which criminalizes possession and distribution of steroids. (See Appendix F.)
6. SUSPENSION AND RELATED DISCIPLINE

Players

Players who violate the Policy will be subject to discipline by the Commissioner as outlined below.

Step One: The first time a Player violates this Policy by testing positive for a Prohibited Substance; attempting to substitute, dilute or adulterate a specimen; manipulating a test result; or by violation of Section 5, he will be suspended without pay pursuant to the following schedule:

- Positive Test Result for Diuretic or Masking Agent -- two regular and/or postseason games.
- Positive Test Result for Stimulant\(^5\) or Anabolic Agent -- four regular and/or postseason games.
- Positive Test Result for a Prohibited Substance plus a Diuretic or Masking Agent/Attempt to Substitute, Dilute or Adulterate a Specimen/Attempt to Manipulate a Test Result/Violation of Section 5 -- six regular and/or postseason games.

Suspensions will begin when the Player accepts discipline or the decision on appeal becomes final. If fewer than the imposed number of games remains in the season, including any postseason games for which the Club qualifies, the suspension will carry over to the next regular season until the total number of games has been missed.

If the imposition of a suspension occurs prior to or during the preseason, the Player will be permitted to engage in all preseason activities. Upon the posting of final rosters, however, he will be suspended for the imposed number of regular-season games.

In addition, the Player will be subject to evaluation and counseling if, in the opinion of the Independent Administrator, such assistance is warranted.

Step Two: The second time a Player violates this Policy by testing positive for a Prohibited Substance; attempting to substitute, dilute or adulterate a specimen; manipulating a test result; or by violation of Section 5, he will be suspended without pay for ten regular and/or postseason games. The suspension will begin when the Player accepts discipline or his appeal becomes final. If there are fewer than ten regular and/or postseason games remaining in the season, including any postseason games for which the Club qualifies, the suspension will continue into the next regular season until the total number of games has been missed.

Step Three: The third time a Player violates the Policy by testing positive for a Prohibited

\(^5\) If a test administered to a Player outside of the Playing Season generates a positive result for a stimulant listed on Appendix A, the Player will not be subject to discipline under this Policy, but will instead be treated as a behavioral referral to the Policy and Program on Substances of Abuse. For purposes of this Section, the Playing Season shall be defined as the period beginning with the Player’s first preseason game of the season and ending the week following his final regular or post-season game. For free agents, the Playing Season shall run from the League’s first preseason game and end upon the conclusion of the Super Bowl.
Substance; attempting to substitute, dilute or adulterate a specimen; manipulating a test result; or by violation of Section 5, he will be banished from the NFL for a period of at least two seasons, subject to any appeal. Such a Player may petition the Commissioner for reinstatement after 24 months. Reinstatement, and any terms and conditions thereof, shall be matters solely within the Commissioner’s sound discretion.

Players who are suspended under this Policy will be placed on the Reserve/Commissioner Suspension list. During the suspension period (subject to the preseason activities permitted for Step One violations), the Player will not be paid, nor may he participate in team activities, use the Club’s facilities or have contact with any Club officials except to arrange off-site medical treatment. Before a Player is reinstated following a suspension, he must test negative for all Prohibited Substances under this Policy in order to be approved for return to play by the Independent Administrator. In addition, the Player must be examined and approved as fit to play by the Club physician before he may participate in contact drills or in a game.

In addition to the suspension imposed on him, any Player suspended for a violation of the Policy will be ineligible for selection to the Pro Bowl, or to receive any other honors or awards from the League or the Players Association, for the season in which the violation is upheld (i.e., following any appeals) and in which the suspension is served.

Other Violators

Any coach, athletic trainer, Club physician or Club employee who uses, condones, encourages, supplies, or otherwise facilitates the improper use of Prohibited Substances shall be subject to discipline by the Commissioner. Any NFLPA Certified Contract Advisor or other person within the NFLPA’s authority who engages in such conduct shall be subject to discipline by the NFLPA Executive Director.

7. Procedures Regarding Testosterone, Blood Testing

Testosterone

The Independent Administrator is authorized to subject a percentage of all specimens to Carbon Isotope Ratio (CIR) testing to detect the use of exogenous steroids. Confirmation of the exogenous administration of testosterone shall be governed by the WADA Technical Document or Guideline in effect at the date of agreement on this Policy governing the detection of endogenous anabolic androgenic steroids, which is attached at Appendix J (and any updates that the Parties may agree are appropriate).

If the introduction of testosterone or the use or manipulation of any other substance results in increasing the ratio of the total concentration of testosterone to that of epitestosterone in the urine to greater than 4:1, the test will be considered presumptively positive and will be subjected to CIR analysis. If CIR testing confirms the presence of an exogenous steroid, the result will be referred for discipline. In addition, if a Player's epitestosterone level exceeds 200 ng/mL, it will be considered a positive test result regardless of the Player's T:E ratio.

Notwithstanding, when information available to the Independent Administrator suggests but is not conclusive of steroid use, the Independent Administrator may require the Player to submit to ongoing reasonable cause testing and shall order other medical procedures including Carbon Isotope Ratio Testing or other diagnostic tests to confirm whether an exogenous steroid has
been used in violation of the Policy. The Independent Administrator must inform the Parties if he/she intends to place a Player on reasonable cause testing on this basis prior to commencement of the reasonable cause testing. In addition, the Independent Administrator will be entitled to review any available past and/or current medical or testing records.

Such discipline may be imposed within the season of the year in which the positive test occurred, or, if the Independent Administrator prescribes follow-up measures that entail delay in the final determination, in a subsequent season.

**Blood Testing**

Blood testing will commence 14 days (or shortly thereafter) from the date of the Parties’ agreement on this Policy.

All Players shall be eligible to be tested for growth hormones through serum (blood) analysis using the isoform hGH test unless and until the Parties agree on use of another testing methodology.

Players who are not in reasonable cause testing shall not be subject to more than six blood tests per calendar year.

No blood testing will occur on game days.

Blood testing will take place under the following circumstances:

- **Annual:** The Independent Administrator will, by means of a computer program, randomly assign twenty percent (20%) of each Club’s Players selected for Annual Testing under Section 3.1 to receive serum testing in addition to urine testing.

- **Preseason/Regular Season:** Each week during the preseason and regular season, by means of a computer program, five (5) Players from eight (8) randomly selected Clubs, who are selected for Preseason/Regular Season Testing under Section 3.1, will receive serum testing in addition to urine testing. Players will be required to submit to testing whenever they are selected, without regard to the number of times they have previously been tested consistent with the limits set in this Policy.

- **Postseason:** Five (5) of the ten (10) Players selected for testing under Section 3.1 on every Club qualifying for the playoffs will receive serum testing in addition to urine testing as long as the Club remains active in the postseason.

- **Off-Season:** By means of a computer program, the Independent Administrator will randomly assign ten percent (10%) of each Club’s Players selected for Off-Season Testing under Section 3.1 to receive serum testing. Such testing may be in lieu of urine testing at the Independent Administrator’s discretion.

- **Pre-Employment:** Pre-employment tests may be administered to free agent Players (whether rookies or veterans). In addition, the Independent Administrator will randomly select thirty (30) Players for serum testing (in addition to urine testing) at the League’s annual scouting combines.

- **Reasonable Cause Testing:** Any Player subject to Reasonable Cause Testing pursuant to Section 3.1 shall be eligible for serum testing at the discretion of the Independent Administrator (subject to the collectively-bargained maximum of 24 urine and/or blood tests per Player per year).
Players who test positive under this Section will be subject to discipline as set forth in Sections 3, 6 and 12 of the Policy.

Before discipline is imposed, Players will have the appeal rights set forth in Sections 10 and 11 of the Policy.

8. MASKING AGENTS AND SUPPLEMENTS

The use of so-called “blocking” or “masking” agents is prohibited by this Policy. These include diuretics or water pills, which have been used in the past by some Players to reach an assigned weight.

In addition, a positive test will not be excused because it results from the use of a dietary supplement, rather than from the intentional use of a Prohibited Substance. Players are responsible for what is in their bodies. For more information concerning dietary supplements, see Appendices D and E.

9. ARBITRATION PANEL; APPEALS SETTLEMENT COMMITTEE

All appeals under Section 6 of this Policy shall be heard by third-party arbitrators not affiliated with the NFL, NFLPA or Clubs.

The Parties shall jointly select and be equally responsible for compensating no fewer than three but no more than five arbitrators to act as hearing officers for appeals under Section 6 of this Policy. Such arbitrators shall have appropriate expertise in matters under this Policy and shall be active members in good standing of a state bar association. Unless the Parties mutually determine otherwise, each arbitrator shall serve a minimum two-year term, after which he or she may be discharged by either Party upon written notice to the arbitrator and other Party. The arbitrators’ fees and expenses shall be shared equally by the Parties.

The selected group of arbitrators shall designate one of its members to be the Notice Arbitrator, who also will be responsible for assignment of the appeals. Prior to the first preseason game, the Notice Arbitrator will ensure that at least one arbitrator is assigned to cover every Tuesday of the playing season through the Super Bowl. Appeals will automatically be assigned to the arbitrator assigned to cover the fourth Tuesday following the date on which the Player is notified of discipline. During the off-season, the Notice Arbitrator shall assign appeals on a rotating basis such that a hearing may be scheduled within thirty (30) days of the issuance of the notice of discipline.

An Appeals Settlement Committee consisting of the NFL Commissioner and the NFLPA Executive Director or their respective designees shall have authority to resolve any appeal under this Policy, which resolution shall be final and binding. Should the NFLPA believe that “extraordinary circumstances” exist which warrant reduced or vacated discipline, the Executive Director may raise them with the Commissioner. Consideration of an appeal by the Appeals Settlement Committee shall not in any way delay the appeals procedures outlined in this Policy, and no appeal may be resolved by the Appeals Settlement Committee once a decision on the appeal has been issued.
10. APPEALS

Except as is expressly set forth elsewhere in this Policy, any dispute concerning the application, interpretation or administration of this Policy shall be resolved exclusively and finally through the following procedures:

Section 5 Appeals. Appeals of discipline issued pursuant to Section 5 of this Policy shall be heard by the Commissioner or his designee.

For such appeals, a Player shall have a right to appeal a decision affirming discipline to a member of the Appeals Panel established under Article 15 of the CBA, subject to the provisions of this Section.

This right of appeal (“Due Process Appeal”) is limited to claims only in the following circumstances:

(a) The conduct of the appeal or hearing did not comport with one or more of the following established principles of industrial due process: (i) the Player was not provided with notice of the basis for the discipline; (ii) the Player was improperly denied an opportunity to present evidence or testimony in support of his appeal; (iii) the Player was improperly denied the opportunity to cross-examine a witness whose testimony was offered in the Section 5 appeal hearing in support of the discipline imposed; or (iv) the Player was improperly denied access to documents or other evidence in the possession of the League or a Club and unavailable to the Player or his representatives indicating that he did not violate the Policy or that a witness whose testimony was offered in the Section 5 appeal hearing was untruthful; or

(b) The decision affirming the discipline subjected the Player to an increased and disparate sanction when compared to other similarly situated Players and the Hearing Officer failed to reasonably set forth the basis for the variation. Any discipline imposed that falls within a specified numerical limit set forth in the Policy shall have a rebuttable presumption that it is not disparate.

Procedure: A Due Process Appeal must be noticed within three (3) business days of the appeal decision, and must be initiated in writing to the Appeals Panel with a copy of the hearing transcript by overnight or electronic mail with copies of the notice to the Management Council and NFLPA. The Appeals Panel shall appoint one of its members to preside over the Due Process Appeal. The notice must set forth the specific basis of appeal under (a) or (b) above, with citations to the hearing transcript identifying the challenged decision or ruling. Within two (2) business days following the receipt of the notice, the Management Council and/or NFLPA may submit a responding letter brief. Absent instruction from the appointed Appeals Panel member, no other submissions will be permitted.

The appointed Appeals Panel member shall promptly determine whether to schedule a hearing or decide the Due Process Appeal based on the written submissions. If a hearing is directed, it shall take place via telephone conference call on the first Tuesday following receipt of the responding submissions (or the second Tuesday if the first Tuesday would be impracticable) and shall not include the introduction of any documentary evidence or testimony beyond the record and proffers made in the Section 5 appeal and any proffer of documents or other information alleged to be improperly denied under (a) above. The appointed Appeals Panel

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member shall render a decision within three (3) business days following receipt of the parties’ written submissions or the hearing, whichever is later. The decision may be a summary ruling followed by a formal decision.

**Standard of Review; Scope of Relief:** To prevail on a Due Process Appeal, the Player must demonstrate that the challenged decision or ruling was clearly erroneous and in manifest disregard of the principles of the Policy and the Player’s rights thereunder. The Player’s Due Process Appeal right will be deemed waived if no objection regarding the challenged decision or ruling was raised during the Section 5 appeal hearing. If the Due Process Appeal is premised on a matter that: (i) first appeared in the decision itself; or (ii) was discovered after the Section 5 appeal hearing and was unknown, and could not reasonably have been known, by the Player and his representatives at that time, the new information and the circumstances surrounding its discovery must be set forth in the notice of appeal or the appeal right will be deemed waived. In any Section 5 appeal or Due Process Appeal, all court records shall be fully admissible and any finding or judgment of a court shall be binding and not subject to challenge.

If the Player establishes his claim as set forth above, the appointed Appeals Panel member shall stay the discipline and remand the matter to the third-party Notice Arbitrator with instructions for further proceedings. The appointed Appeals Panel member shall have no authority to make substantive rulings on any matter addressed by the Policy including, without limitation, issues related to the administration of the Policy, identification of banned substances, a Player’s status under the Policy, confidentiality, specimen collection, laboratory procedures and protocols, medical care or clinical assistance, the imposition of sanctions or discipline other than as provided in subsection (b) above and/or the disciplinary authority of the Commissioner or his designee as hearing officer.

On remand, the Notice Arbitrator or appointed third-party arbitrator shall decide the Player’s claim and any discipline based on the record in the Section 5 appeal and any documents or other information determined to have been improperly denied. Such appeal shall not be *de novo:* the third-party arbitrator shall consider new evidence or testimony only if so directed by the appointed Appeals Panel member. In the event new testimony must be considered by the third-party arbitrator, such testimony must be presented by the first Tuesday immediately following remand (or the second Tuesday if the first Tuesday would be impracticable).

The decision of the appointed Appeals Panel member, and any subsequent decision by a third-party arbitrator on remand, will constitute full, final and complete disposition of the Due Process Appeal under this Section and will be binding upon the parties.

**Section 6 Appeals.** Any Player who is notified by the NFL Management Council that he is subject to a fine or suspension for violation of the terms of this Policy may appeal such discipline in writing within five (5) business days of receiving notice from the NFL that he is subject to discipline.

Appeal hearings will be scheduled to take place on the fourth Tuesday following issuance of the notice of discipline. Upon agreement of the Parties, the hearing may be rescheduled to another date. In the absence of an agreement, a party may request a conference call to move for a new date based on extenuating circumstances. In such case, should the arbitrator conclude that a new date is warranted, a new date may be scheduled, but in no instance shall the rescheduled date fall more than one week after the originally scheduled date unless otherwise
ordered by the arbitrator.

At the appeal hearing the Player may be accompanied by counsel and may present relevant evidence or testimony in support of his appeal. Additionally, the NFLPA may attend and participate notwithstanding the Player’s use of other representation. The hearing may be conducted by conference call upon agreement of the Parties.

The decision of the arbitrator will constitute a full, final, and complete disposition of the appeal and will be binding on all parties. The arbitrator shall not, however, have authority to: (1) reduce a sanction below the minimums established under the Policy; or (2) vacate a disciplinary decision unless the arbitrator finds that the charged violation could not be established.

Pending completion of the appeal, the suspension or other discipline will not take effect.

The NFL Management Council may, prior to the conclusion of a Player’s appeal, reduce the length of the suspension and corresponding bonus forfeiture by up to 50% when the Player has provided full and complete assistance (including hearing testimony if required) to the Management Council which results in the finding of an additional violation of the Policy by another Player, coach, trainer or other person subject to this Policy.

Other Appeals. Any Player who has a grievance over any aspect of the Policy other than discipline under Sections 5 or 6, including but not limited to suspensions and fines for failure to appear for testing (see Appendix H), must present such grievance to the Players Association (with a copy to the Management Council) within five (5) business days of when he knew or should have known of the grievance. The NFLPA will endeavor to resolve the grievance in consultation with the Management Council. Thereafter, the NFLPA may, if it determines the circumstances warrant, present such grievance to: (i) the designated third party arbitrator selected pursuant to Section 9 for final resolution for any disciplinary action; or (ii) the Commissioner for any other matter. Such appeal must be presented no later than thirty (30) calendar days after the Player’s presentment of the grievance to the NFLPA.

11. BURDENS AND STANDARDS OF PROOF; DISCOVERY

Burden of Proving the Violation. In any case involving an alleged violation due to a Positive Test, the Management Council shall have the burden of establishing the Positive Test Result and that it was obtained pursuant to a test authorized under the Policy and was conducted in accordance with the collection procedures and testing protocols of the Policy and the protocols of the testing laboratory (herein collectively “the Collection Procedures”). The Management Council is not required to otherwise establish intent, negligence or knowing use of a Prohibited Substance on the Player’s part.

The Management Council may establish that a test result was “positive” by introducing analytical findings provided by the testing laboratory and verified by the Chief Forensic Toxicologist, and by demonstrating that the test result was for a Prohibited Substance as identified in Appendix A of the Policy at the level required by the testing protocols. The specimen collectors, Independent Administrator, Chief Forensic Toxicologist and testing laboratories will be presumed to have collected and analyzed the Player’s specimen in accordance with the Policy. In that respect, the Management Council may rely solely on the information contained in the standard laboratory documentation package (see Appendix G)
provided to the Parties, which shall be admissible without regard to hearsay challenge, to demonstrate that the test was conducted in accordance with the Collection Procedures, including, without limitation, that the chain of custody of the specimen was maintained.

In addition, in any case involving a positive test result for hGH, the Management Council shall have the burden of establishing the presence of hGH in the Player’s blood specimen. As part of meeting that burden, the Management Council shall be required to establish the accuracy and reliability of the blood test administered to the Player. The Players Association and the Player may present any evidence in response, and the Parties’ agreement to allow the test to be conducted shall be irrelevant to the arbitrator’s determination as to whether the Management Council has met that burden. The Management Council is not required to otherwise establish intent, fault, negligence, or knowing use of hGH on the Player’s part to establish a violation.

Challenges to the Proof of the Violation. The Player may challenge the initial showing by the Management Council that the result was “positive” or that it was obtained pursuant to a test authorized under the Policy or was conducted in accordance with the Collection Procedures. If the Player alleges a deviation from the Collection Procedures with credible evidence, the Management Council will carry its burden by demonstrating that: (a) there was no deviation; (b) the deviation was authorized by the Parties; or (c) the deviation did not materially affect the accuracy or reliability of the test result.

In any case involving a positive test result for hGH, the Player has a right to challenge any aspect of the science of the isoforms test, including but not limited to challenges to the decision limits and any population studies used to establish them, but neither the absence of a joint NFLPA/NFL population study nor the election to forgo such a study shall be relevant or admissible for any purpose or imposed as a remedy by the hearing officer in any appeal.

A Player is not in violation of the Policy if the presence of the Prohibited Substance in his test result was not due to his fault or negligence. The Player has the burden of establishing this defense. A Player cannot satisfy his burden merely by denying that he intentionally used a Prohibited Substance; that he was given the substance by a Player, doctor or trainer; or that he took a mislabeled or contaminated product, and the Player must provide objective evidence in support of his denial.

A Player may challenge a positive test result at any time on the basis of newly-discovered scientific evidence that questions the accuracy or reliability of the result. Such a challenge may be brought even if the result previously has been upheld on appeal. Such a challenge may not be based on a decision by the Parties to employ a different testing technology at a later time. Should such a challenge be upheld, the arbitrator may direct a payment to a Player to make him whole for lost salary at the time the suspension was served. Any such payment will count against the total Player Cost for the year in which the payment is made.

Pre-Hearing Discovery. Within seven (7) business days of issuing a notice of discipline, the League shall provide the Player with an indexed binder containing the relevant correspondence and documentation. Within four (4) business days of receipt of the binder, the Player and League shall make any written requests for additional discovery sought. If there is no objection to the request, documents will be provided within five (5) business days or as soon as the documents are obtained. Objections will be promptly submitted via conference call to the arbitrator for decision.

No later than four (4) business days prior to the hearing, the Player will complete and submit
a statement setting forth the specific grounds upon which the appeal is based with supporting facts in the form of proffered testimony or documentary evidence (“Basis of Appeal”). Once submitted, evidence on issues outside the scope of the Basis of Appeal shall not be permitted absent a showing by the requesting party of extraordinary circumstances justifying its inclusion. The Parties shall also be permitted to seek preclusion of evidence on any issue for which insufficient supporting facts are alleged or for which arbitral precedent previously has been established.

No later than four (4) business days prior to the hearing, the League and Player’s representative will exchange copies of any exhibits upon which they intend to rely and a list of witnesses expected to provide testimony. The failure to do so shall preclude the introduction of the late or nonproduced exhibits barring extraordinary circumstances as determined by the arbitrator. (This shall not preclude the introduction of rebuttal evidence). Following the exchange, the arbitrator may permit the parties to provide further supplementation as appropriate.

In presenting an appeal under this Policy a Player is not entitled to production of or access to records, reports or other information concerning other Players or the Policy’s bargaining history. Notwithstanding, this provision does not limit the Players Association’s access to appropriate information concerning all violations under this Policy.

Decision; Post-Hearing Briefs. Within three (3) business days after the hearing or the receipt of the transcript (whichever is later), the arbitrator will evaluate the evidence and issue a summary ruling. A formal written opinion shall be issued within ten (10) business days after the hearing or the receipt of the transcript (whichever is later). The failure of the arbitrator to timely issue the ruling and opinion will result in the arbitrator’s preclusion from handling further appeals for the remainder of the season in question. Post-hearing briefs will not be permitted, except that an arbitrator may request briefing on a specific issue or issues. If the arbitrator requests such briefing, he/she will set a submission deadline of not more than five (5) business days after the hearing or receipt of the transcript and a page limit of no more than ten (10) pages.

12. CONFIDENTIALITY

12.1 Scope

All Players (including authorized representatives), NFL employees, Club employees, NFLPA employees, Certified Contract Advisors, and persons involved in the administration of the Policy are subject to the confidentiality provisions of this Policy. The confidentiality of the matters under this Policy shall be protected. Except as allowed in this Policy or otherwise agreed to by the Parties, public disclosure, directly or indirectly, of information concerning positive tests, appeals or other violations of this Policy is not permitted.

The Management Council may publicly announce or acknowledge disciplinary action against a Player when a suspension is upheld or if the allegations relating to a Player’s violation of the Policy previously are made public through a source other than the Management Council or a Club (or their respective employees or agents).

In addition, the Management Council may publicly disclose information relating to the discipline of a Player to correct inaccurate public claims made by that Player or his
representatives about the discipline.

Finally, the Parties will discuss the possibility of periodically disseminating de-identified, aggregated information (including the nature of violations and/or substances involved) concerning the administration of the Policy.

12.2 **Discipline for Breach**

The Parties may, in appropriate cases, agree to retain an independent investigator to investigate and report on alleged breaches of confidentiality.

Any Player, Club or Club employee who breaches the confidentiality provisions of this Policy shall be subject to a fine of up to $500,000 by the Commissioner.

Any NFLPA employee or other person subject to the Executive Director’s authority who breaches these provisions shall be subject to a fine of up $500,000 by the Executive Director. Any Certified Contract Advisor who breaches these provisions shall be subject to discipline under the NFLPA Regulations for Certified Contract Advisors.

Any other person involved in the administration of this Policy who breaches these provisions shall be subject to termination of services or other appropriate action.

The provisions of this Section shall be the sole remedy available to a Player or other party aggrieved by an alleged violation of the Policy’s confidentiality provisions.

13. **Fine Money**

Fines will be collected in accordance with Article 46, Section 5 of the Collective Bargaining Agreement.

14. **Bonus Forfeiture**

Players who are suspended pursuant to this Policy shall be required to forfeit any applicable bonus amounts in accordance with Article 4, Section 9 of the Collective Bargaining Agreement. The Parties acknowledge the inapplicability of “facial invalidity” claims on forfeitures based on violations of the Policy.

15. **Eligibility of Persons Suspended by Other Organizations**

Any person who has been suspended from competition by a recognized sports testing organization based on: (a) a positive test result reported by a World Anti-Doping Agency accredited laboratory for a substance banned under this Policy; (b) an effort to substitute, manipulate or otherwise fail to cooperate fully with testing; or (c) a violation of law or admission involving the use of steroids or other performance-enhancing substances, shall be permitted to enter into an NFL Player Contract or Practice Contract. Such person, however, will be placed on reasonable cause testing.
16. RETENTION AND DESTRUCTION OF SPECIMENS

The Independent Administrator and Chief Forensic Toxicologist will work with the testing laboratories to develop procedures for the handling of NFL Player specimens following laboratory analysis, which procedures shall be subject to approval by the Parties. These procedures will ensure the destruction of negative specimens within 90 days of analysis and positive specimens within 30 days of final adjudication of a Player’s discipline. Blood specimens may not be used for any purpose other than the testing delineated in this Policy. Certification of destruction of blood samples in compliance with the Policy must be sent to the Parties semi-annually. Once the procedures are developed, the Chief Forensic Toxicologist will monitor compliance and promptly report any confirmed or suspected failures to adhere to the retention and destruction procedures.
List of Prohibited Substances

The following substances and methods are prohibited by the National Football League:

I. **ANABOLIC AGENTS**

A. **ANABOLIC/ANDROGENIC STEROIDS:**

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<thead>
<tr>
<th>Generic Name</th>
<th>Brand Names (Examples)</th>
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<tr>
<td>Androstenediol</td>
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<td>1-Testosterone</td>
<td>---</td>
</tr>
<tr>
<td>Tetrahydrogestrinone</td>
<td>THG</td>
</tr>
<tr>
<td>Trenbolone</td>
<td>Finaject</td>
</tr>
</tbody>
</table>

*and other substances with a similar chemical structure and similar biological effect(s)*

B. HORMONES:

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Names (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Growth Hormone (hGH)</td>
<td>Saizen, Humatrope, Nutropin AQ</td>
</tr>
<tr>
<td>Animal Growth Hormones</td>
<td>---</td>
</tr>
<tr>
<td>Human Chorionic Gonadotropin (hCG)</td>
<td>Novarel, Menotropins</td>
</tr>
<tr>
<td>Insulin Growth Factor (IGF-1)</td>
<td>---</td>
</tr>
<tr>
<td>Erythropoietin (EPO)</td>
<td>---</td>
</tr>
</tbody>
</table>

C. BETA-2-AGONISTS (Clenbuterol, etc.)

D. ANTI-ESTROGENIC AGENTS:

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Names (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aminoglutethimide</td>
<td>Cytadren</td>
</tr>
<tr>
<td>Anastrozole</td>
<td>Arimidex</td>
</tr>
<tr>
<td>4-androsten-3,6,17 trione</td>
<td>6-oxo</td>
</tr>
<tr>
<td>Clomiphene</td>
<td>Clomid</td>
</tr>
<tr>
<td>Cyclofenil</td>
<td>---</td>
</tr>
<tr>
<td>Exemestane</td>
<td>Aromastin</td>
</tr>
</tbody>
</table>
E. SELECTIVE ANDROGEN RECEPTOR MODULATORS (SARMs) (brand names include Andarine, Ostarine)

II. MASKING AGENTS

A. DIURETICS

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Names (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetazolamide</td>
<td>Amilco</td>
</tr>
<tr>
<td>Amiloride</td>
<td>Midamor</td>
</tr>
<tr>
<td>Bendroflumethiazide</td>
<td>Aprinox</td>
</tr>
<tr>
<td>Benzthiazide</td>
<td>Aquatag</td>
</tr>
<tr>
<td>Bumetanide</td>
<td>Burine</td>
</tr>
<tr>
<td>Canrenone</td>
<td>---</td>
</tr>
<tr>
<td>Chlorothiazide</td>
<td>Diuril</td>
</tr>
<tr>
<td>Chlorthalidone</td>
<td>---</td>
</tr>
<tr>
<td>Cyclothiazide</td>
<td>Anhydron</td>
</tr>
<tr>
<td>Ethacrynic Acid</td>
<td>Edecrin</td>
</tr>
<tr>
<td>Flumethiazide</td>
<td>---</td>
</tr>
<tr>
<td>Furosemide</td>
<td>Lasix</td>
</tr>
<tr>
<td>Hydrochlorothiazide</td>
<td>Aprozide</td>
</tr>
<tr>
<td>Hydroflumethiazide</td>
<td>Leodrine</td>
</tr>
<tr>
<td>Indapamide</td>
<td>Lozol, Natrilix</td>
</tr>
<tr>
<td>Methyclothiazide</td>
<td>Aquatensen</td>
</tr>
<tr>
<td>Metolazine</td>
<td>Zaroxolyn</td>
</tr>
<tr>
<td>Polythiazide</td>
<td>Renese</td>
</tr>
<tr>
<td>Probenecid</td>
<td>Benemid</td>
</tr>
<tr>
<td>Quinethazone</td>
<td>Hydromox</td>
</tr>
<tr>
<td>Spironolactone</td>
<td>Aldactone</td>
</tr>
<tr>
<td>Triamterene</td>
<td>Jatropur, Dytac</td>
</tr>
<tr>
<td>Trichlormethiazide</td>
<td>Anatran</td>
</tr>
</tbody>
</table>

*and other substances with a similar chemical structure and similar biological effect(s)*

B. EPITESTOSTERONE

C. PROBENECID
### III. STIMULANTS

<table>
<thead>
<tr>
<th>Generic Name</th>
<th>Brand Names (Examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adrafinil</td>
<td></td>
</tr>
<tr>
<td>Adrenaline</td>
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</tr>
<tr>
<td>Amfepramone</td>
<td></td>
</tr>
<tr>
<td>Amiphenazole</td>
<td></td>
</tr>
<tr>
<td>Amphetamine</td>
<td>Greenies, Speed, Adderall</td>
</tr>
<tr>
<td>Amphetaminil</td>
<td></td>
</tr>
<tr>
<td>Benfluorex</td>
<td></td>
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<tr>
<td>Benzphetamine</td>
<td></td>
</tr>
<tr>
<td>Benzylpiperazine</td>
<td></td>
</tr>
<tr>
<td>Bromantan</td>
<td></td>
</tr>
<tr>
<td>Cathine</td>
<td></td>
</tr>
<tr>
<td>Clobenzorex</td>
<td></td>
</tr>
<tr>
<td>Cropropamide</td>
<td></td>
</tr>
<tr>
<td>Croternamide</td>
<td></td>
</tr>
<tr>
<td>Dimethylamphetamine</td>
<td></td>
</tr>
<tr>
<td>Ephedrine</td>
<td>Ma Huang, Chi Powder</td>
</tr>
<tr>
<td>Etamivan</td>
<td></td>
</tr>
<tr>
<td>Etiamphetamine</td>
<td></td>
</tr>
<tr>
<td>Etilefrine</td>
<td></td>
</tr>
<tr>
<td>Famprofazone</td>
<td></td>
</tr>
<tr>
<td>Fenbuprazate</td>
<td></td>
</tr>
<tr>
<td>Fencamfamin</td>
<td></td>
</tr>
<tr>
<td>Fencamine</td>
<td></td>
</tr>
<tr>
<td>Fenetylamine</td>
<td></td>
</tr>
<tr>
<td>Fenfluramine</td>
<td>Phen-Fen, Redux Fenetylline</td>
</tr>
<tr>
<td>Fenproporex</td>
<td></td>
</tr>
<tr>
<td>Furfenorex</td>
<td></td>
</tr>
<tr>
<td>Heptaminol</td>
<td></td>
</tr>
<tr>
<td>Isometheptene</td>
<td></td>
</tr>
<tr>
<td>Levmetamfetamine</td>
<td></td>
</tr>
<tr>
<td>Meclofenoxate</td>
<td></td>
</tr>
<tr>
<td>Mefenorex</td>
<td></td>
</tr>
<tr>
<td>Mepheternine</td>
<td></td>
</tr>
<tr>
<td>Mesocarb</td>
<td></td>
</tr>
<tr>
<td>Methamphetamine</td>
<td></td>
</tr>
<tr>
<td>P-Methydamphetamine</td>
<td></td>
</tr>
<tr>
<td>Methylenedioxamphetamine</td>
<td></td>
</tr>
<tr>
<td>Methylephedrine</td>
<td></td>
</tr>
<tr>
<td>Methylhexaneamine (Dimethylpentlylamine)</td>
<td></td>
</tr>
<tr>
<td>Methylphenidate</td>
<td>Ritalin, Daytrana, Metadate, Methylin</td>
</tr>
<tr>
<td>Modafinil</td>
<td>Provigil</td>
</tr>
<tr>
<td>Nikthamide</td>
<td></td>
</tr>
<tr>
<td>Norfenefrine</td>
<td></td>
</tr>
<tr>
<td>Generic Name</td>
<td>Brand Names (Examples)</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Norfenfluramine</td>
<td>---</td>
</tr>
<tr>
<td>Octopamine</td>
<td>---</td>
</tr>
<tr>
<td>Oxilofrine</td>
<td>---</td>
</tr>
<tr>
<td>Parahydroxyamphetamine</td>
<td>---</td>
</tr>
<tr>
<td>Pemoline</td>
<td>---</td>
</tr>
<tr>
<td>Pentetrazol</td>
<td>---</td>
</tr>
<tr>
<td>Phendimetrazine</td>
<td>---</td>
</tr>
<tr>
<td>Phenmetrazine</td>
<td>---</td>
</tr>
<tr>
<td>Phenpromethamine</td>
<td>---</td>
</tr>
<tr>
<td>Phentermine</td>
<td>Fastin, Adipex, Ionamin</td>
</tr>
<tr>
<td>Prenylamine</td>
<td>---</td>
</tr>
<tr>
<td>4-Phenylpiracetam</td>
<td>Carphedon</td>
</tr>
<tr>
<td>Prenylamine</td>
<td>---</td>
</tr>
<tr>
<td>Prolintane</td>
<td>---</td>
</tr>
<tr>
<td>Propylhexedrine</td>
<td>---</td>
</tr>
<tr>
<td>Pseudoephedrine *</td>
<td>Sudafed, Actifed</td>
</tr>
<tr>
<td>Selegiline</td>
<td>---</td>
</tr>
<tr>
<td>Sibutramine</td>
<td>---</td>
</tr>
<tr>
<td>Strychnine</td>
<td>---</td>
</tr>
<tr>
<td>Synephrine</td>
<td>Bitter Orange, Citrus Aurantium</td>
</tr>
<tr>
<td>Tuaminoheptane</td>
<td>---</td>
</tr>
</tbody>
</table>

* Except as properly prescribed by Club medical personnel.
IV. DOPING METHODS

A. Introduction of a Prohibited Substance into the body by any means, including but not limited to the introduction of a Prohibited Substance, or the ingestion or injection of a supplement of other product containing a Prohibited Substance.
Pharmacological, chemical or physical manipulation by, for example, catheterization, urine substitution, tampering, or inhibition or renal excretion by, for example, probenecid and related compounds.

B. ENHANCEMENT OF OXYGEN TRANSFER
The following are prohibited:
1. Blood doping, including the use of autologous, homologous, or heterologous blood or red blood cell products of any origin. (This prohibition is not intended to prohibit the use of platelet replacement procedures, except as they involve the use of a Prohibited Substance.)
2. Artificially enhancing the uptake, transport, or delivery of oxygen, including, but not limited to, perfluorochemicals, efaproxiral (RSR13) and modified haemoglobin products (e.g. haemoglobin-based blood substitutes, microencapsulated haemoglobin products), excluding supplemental oxygen.

C. CHEMICAL AND PHYSICAL MANIPULATION
The following are prohibited:
1. Any effort to substitute, dilute or adulterate or otherwise tamper with a specimen, or to manipulate a test result to evade detection will be considered a violation of this Policy. These include but are not limited to catheterization and urine substitution.
2. Intravenous infusions are prohibited except for those legitimately received in the course of hospital admissions or clinical investigations.
3. Sequential withdrawal, manipulation, and reinfusion of whole blood into the circulatory system is prohibited.

D. GENE DOPING
The following, with the potential to enhance sport performance, are prohibited:
1. The transfer of nucleic acids or nucleic acid sequences;
2. The use of normal or genetically modified cells;
3. The use of agents that directly or indirectly affect functions known to influence performance by altering gene expression. For example, Peroxisome Proliferator Activated Receptor δ (PPARδ) agonists (e.g. GW 1516) and PPARδ-AMP-activated protein kinase (AMPK) axis agonists (e.g. AICAR) are prohibited.
Personnel

The Independent Administrator of the NFL Policy on Performance-Enhancing Substances is Dr. John Lombardo, who is currently Medical Director of the Max Sports Medicine and Clinical Professor in the Department of Family Medicine at the Ohio State Medical School and a member of the Prohibited Substances and Methods Committee of the World Anti-Doping Agency. He also was previously a member of the faculty at the Sports Medicine Center of the Cleveland Clinic and has served as team physician to the Cleveland Cavaliers of the NBA and as an advisor on steroid issues to both the NCAA and the Olympic Committee.

The Chief Forensic Toxicologist is Dr. Bryan Finkle, a pharmacologist and toxicologist with more than fifty years’ experience in forensic science and more than twenty years in the toxicology of sports medicine and anti-doping laboratory science. He was formerly on the faculty at the University of Utah, colleges of Pharmacy and Medicine and Director of the Center for Human Toxicology. Dr. Finkle serves as President and Chairman of the Board of the Sports Medicine, Research and Testing Laboratory and as consultant to the United States Anti-Doping Agency, the World Anti-Doping Agency and the International Olympic Committee. He also serves on the scientific advisory board of the Partnership for Clean Competition and NFL/NFLPA foundations in support of research and education related to anti-doping issues.

The Parties agree that the roles and responsibilities of the Independent Administrator and Chief Forensic Toxicologist are intended to provide expert medical and scientific oversight of testing procedures to ensure that NFL Players receive the highest level of protection permitted in the administration of the Policy.
Examples of Medical Evaluations

A. Initial Positive Test

**History and Physical**
- Emphasize: Cardiovascular
  - Abdominal
  - Genitourinary (testicle, prostate, impotence, sterility)
  - Psychological (aggressiveness, paranoia, dependency, mental status)
  - Immune system (masses, infections, lymphadenopathy)

**Testing**
- CBC with Differential
- General chemistry panel
  - Electrolytes, BUN/Creatinine, Glucose, Liver enzymes
- Lipid Assay
  - Triglycerides/cholesterol, HDL-C, LDL-C
- Urinalysis
- Cardiovascular
  - EKG
  - Chest X-ray
  - Stress test
  - Echocardiogram
- Semen analysis
- Endocrine Profile
  - TSH, LH, FSH, T4, TBG, Testosterone, SHBG (TBG), Cortisol, ACTH, Serum, Beta hCG
  - Liver scan (either MRI or CT or Ultrasound or liver/spleen Scan)
- CT scan of chest/abdomen
- MRI of brain (with attention to pituitary gland)
- Ultrasound of testes

B. Repeat Positive Test Evaluation+

**History and Physical** - as above

**Testing - Lab as above**
- CV  
  - As indicated by time since last test and
- Liver scan  
  - by history and physical
POLICY ON PERFORMANCE-ENHANCING SUBSTANCES  
-Use of Supplements-

Over the past several years, we have made a special effort to educate and warn Players about the risks involved in the use of “nutritional supplements.” Despite these efforts, several Players have been suspended even though their positive test result may have been due to the use of a supplement. Subject to your right of appeal, if you test positive or otherwise violate the Policy, you will be suspended. You and you alone are responsible for what goes into your body. Claiming that you used only legally available nutritional supplements will not help you in an appeal.

As the Policy clearly warns, supplements are not regulated or monitored by the government. This means that, even if they are bought over-the-counter from a known establishment, there is currently no way to be sure that they:

(a) contain the ingredients listed on the packaging;
(b) have not been tainted with prohibited substances; or
(c) have the properties or effects claimed by the manufacturer or salesperson.

Therefore, if you take these products, you do so AT YOUR OWN RISK! For your own health and success in the League, we strongly encourage you to avoid the use of supplements altogether, or at the very least to be extremely careful about what you choose to take.

Take care and good luck this season.
To: NFL Players
From: Dr. John Lombardo
Subject: Supplements

At the request of the NFL Management Council and NFL Players Association, this will advise you of both health and Policy violation risks you may be faced with by adding over-the-counter supplements to your diet.

In 1994, the U.S government passed a law entitled “The Dietary Supplement Health and Education Act”. As a result of this law, the supplement manufacturers and distributors do not have to prove the effectiveness or the safety of their products. Also, the ingredients of the supplements are not checked by any independent agency, such as the Food and Drug Administration (FDA), to certify the contents of the supplements. **Therefore, the effectiveness, side effects, risks and purity of many products you can buy at the health food store are unknown.**

This law also permits over-the-counter sale of products that violate the NFL’s Policy. For example, DHEA, a steroidal hormone that serves as a direct precursor for the synthesis of testosterone, is widely advertised. However, since this substance is found in some plants and animals, manufacturers currently are allowed to market it as a dietary supplement. This product, like many other supplements that contain substances that violate the Policy, can be purchased at your local health food store and, when ingested, is no different than taking illegal anabolic steroids or related substances.

If you take supplements that contain a substance that violates the Policy it will subject you to discipline. More importantly, you run the risk of harmful health effects associated with their use.

I will continue to provide you with information on the subject throughout the year. In the meantime, if you have any questions about supplements or the steroid Policy, please contact me.

**JOHN A. LOMBARDO, M.D.**

Independent Administrator of the NFL Policy on Performance-Enhancing Substances
APPENDIX F

U.S. Department of Justice
Drug Enforcement Administration

Office of the Administrator
Washington, D.C. 20537

July 15, 2008

Mr. Roger Goodell
Commissioner
National Football League
280 Park Avenue
New York, New York 10017

Dear Commissioner Goodell:

Thank you for your concern regarding the policies of the Drug Enforcement Administration (DEA) in enforcing the Anabolic Steroid Control Act of 1990, as amended in 2004, and the National Football League’s (NFL) policies to eliminate the use of anabolic steroids in the NFL.

Your program of random and reasonable cause testing for steroids reinforces the provisions of the Anabolic Steroid Control Act. Under this law, DEA has the responsibility to regulate all aspects of the legitimate steroid industry, including doctors and pharmacists.

To those who use anabolic steroids, including professional athletes, I should emphasize that under the Act, possession of even personal use quantities not validly prescribed by a doctor is a federal crime. The maximum penalty for simple possession (possession not for sale), is one year in a federal prison and a minimum $1,000 fine.

DEA will also investigate and prosecute violations involving the unlawful manufacture, distribution, and importation of anabolic steroids. Doctors who prescribe anabolic steroids for other than legitimate purposes will be prosecuted. Pharmacists who dispense anabolic steroids without a doctor’s prescription or with one that they know is fraudulent or not issued for a legitimate medical purpose will also be prosecuted.

While DEA’s primary focus is law enforcement, we also recognize the importance of public education on matters such as these. I would thus appreciate it if you would make this letter directly available to each NFL team, its players, physicians, trainers, and other personnel.

Sincerely,

[Signature]
Michele M. Leonhart
Acting Administrator
APPENDIX G

Standard Form of Documentation Package

<table>
<thead>
<tr>
<th>Tab</th>
<th>Item(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cover Sheet</td>
</tr>
<tr>
<td>2.</td>
<td>Table of Contents</td>
</tr>
<tr>
<td>3.</td>
<td>General Overview of Laboratory Procedures</td>
</tr>
<tr>
<td>4.</td>
<td>Custody and Control Forms</td>
</tr>
<tr>
<td></td>
<td>a. External Chain of Custody Form</td>
</tr>
<tr>
<td></td>
<td>b. Specimen Chain of Custody (Bottle and Aliquot)</td>
</tr>
<tr>
<td>5.</td>
<td>Initial Test Information (A-Bottle)</td>
</tr>
<tr>
<td>6.</td>
<td>Confirmation Test Information</td>
</tr>
<tr>
<td></td>
<td>a. Confirmation Test Description</td>
</tr>
<tr>
<td></td>
<td>b. Chain of Custody Documents</td>
</tr>
<tr>
<td></td>
<td>c. Confirmation Aliquot Chain of Custody Log</td>
</tr>
<tr>
<td></td>
<td>d. Specimen ID Verification Report</td>
</tr>
<tr>
<td></td>
<td>e. Analytical Data</td>
</tr>
<tr>
<td>7.</td>
<td>Certification Information</td>
</tr>
<tr>
<td></td>
<td>a. Pending Positive Report (Certifying Scientist Worksheet)</td>
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<tr>
<td></td>
<td>b. Laboratory Report</td>
</tr>
<tr>
<td>8.</td>
<td>Re-Test Information (B-Bottle)</td>
</tr>
<tr>
<td></td>
<td>a. Chain of Custody Pull List</td>
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<tr>
<td></td>
<td>b. Confirmation Aliquot Chain of Custody Log</td>
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<tr>
<td></td>
<td>c. Specimen ID Verification Report</td>
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<td>d. Analytical Data</td>
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<td>a. Pending Positive Report (Certifying Scientist Worksheet)</td>
</tr>
<tr>
<td></td>
<td>b. Laboratory Report</td>
</tr>
</tbody>
</table>
APPENDIX H

Procedures for Failure to Appear for Testing

Players who are selected for Testing must present and provide a specimen within the time periods set forth in Section 3.2 of this Policy. Players who fail to do so without a valid reason as determined by the Independent Administrator will be subject to discipline as set forth below.

When a Player fails to appear for testing, the Parties, in consultation with the Independent Administrator, will determine the nature of the failure and the degree of the Player’s culpability. If the failure to appear is determined to have been a deliberate effort to evade or avoid testing, then the failure will be treated as a Section 6 violation, subject to appeal. For other cases, the failure will be treated as follows:

Unless a warning is issued, the first time a Player fails to appear for testing, he will be fined up to $25,000 under his NFL Player Contract and will be placed into the reasonable cause testing program.

A second failure to appear for testing will result in a fine of 2 weeks’ pay.

A third violation will result in a 4-game suspension without pay.

All disputes in connection with these procedures may only be reviewed pursuant to the Other Appeals procedures set forth in Section 10 of the Policy.

Nothing in these procedures shall be meant to include failures to cooperate with testing other than the failure to appear for testing within the applicable time period. Deliberate efforts to substitute or adulterate a specimen, alter a Test Result, evade testing or engage in prohibited doping methods will be considered Positive Tests and will be subject to the discipline set forth in Section 6 of the Policy.
Therapeutic Use Exemptions

The NFL recognizes that within the list of prohibited substances there are medications that are appropriate for the treatment of specific medical conditions. For athletes who require the use of a prohibited substance to treat an appropriately diagnosed medical problem, a Therapeutic Use Exemption (TUE) may be requested. In reviewing a TUE request, the Independent Administrator of the NFL Policy for Anabolic Steroids and Related Substances and the Medical Advisor for the Policy and Program for Substances of Abuse have sole discretion to require medical evidence beyond that normally necessary to initiate treatment by the medical community.

TUEs may be granted by the Independent Administrator and/or Medical Advisor after review of a player’s TUE application. 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. After review of each case, the advisors may require further diagnostic testing or previous medical records, and/or may utilize the services of expert consultants. The advisors will have the final decision whether to grant a TUE.

The following general requirements apply to all TUE requests:

1. 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;
2. Appropriate evaluation has been completed and all medical records documenting the diagnosis have been submitted for review; and
3. The applicant may not begin use of the prohibited substance until after the TUE is granted.

Effective immediately, a TUE may be granted retroactively only if emergency use of the prohibited substance is necessary to avoid morbidity or mortality of disease or disorder. TUEs for draft-eligible players will continue to be reviewed and granted prior to or following pre-employment tests at Combine or during visits to individual team facilities.

In addition, specific requirements have been established and must be satisfied in order to obtain a TUE for the following conditions:

- ADD/ADHD
- male pattern baldness
- hypertension
- hormonal deficiency due to either primary or secondary hypogonadism and/or hypopituitarism.

Any player who seeks to be treated by a physician with a prohibited substance for any condition must have that physician file a TUE application with the Independent Administrator. If a player tests positive for a prohibited substance without having been granted a TUE, this constitutes a positive test and will be referred for administrative action.
2014 Therapeutic Use Exemption (TUEs) Application Form

Please print clearly or type all sections of this form

**Athlete Information**

Name: ___________________________ Date of Birth: ______________

Team: ___________________________ Position: __________________

Address: ___________________________

City: ___________________ State: ___________ Zip: ____________

Cell: ___________________ E-mail: __________________

**Medical Information** (Medical records must be included that document diagnosis & treatments)

Diagnosis: ___________________________

Medication requested: Name (generic): ___________________________

Dose: _______ Route: _______ Frequency: _______ Duration of treatment: _______

Alternative treatments with non-prohibited substances attempted: __________________________

________________________________________

**Physician Information and Declaration**

I certify that the above treatment is medically appropriate and that the use of alternate medication not on the prohibited list would be unsatisfactory for this condition.

Name: ___________________________ Degree: ___________

Medical Specialty: ___________________________

Address: ___________________________

City: ___________________ State: ___________ Zip: ____________

Phone: ___________________ Fax: ___________________

E-mail: _______________________

Signature of Physician: ___________________________ Date: ___________

---

All TUE applications with documentation are to be sent to:

John A. Lombardo, MD
Independent Administrator of NFL Policy for Anabolic Steroids and Related Substances

mail: [redacted]
fax: [redacted]
e-mail: [redacted]
NFL Requirements for Therapeutic Use Exemption (TUE):

Attention Deficit and Attention Deficit Hyperactivity Disorders (ADD/ADHD)

ADD and ADHD are neurobehavioral disorders characterized by a persistent pattern of inattention and/or hyperactivity. To determine the diagnosis of ADD or ADHD, the medical evaluation must include:

1. Complete history, including interviews with player and preferably with family, associates, teachers, coaches or supervisors to establish behaviors;
2. Evaluation for co-morbidities, including laboratory tests, neurocognitive testing and appropriate screening tests (there is no one specific test which is diagnostic for ADD or ADHD) to determine the diagnosis and treatment plan; and
3. Establishment of DSM-IV or DSM-V (when available) criteria met by player for the diagnosis of ADD or ADHD through complete evaluation and use of a validated ADHD diagnostic rating scale (see below).

Initial TUE application

As a reminder, all TUE applications must be sent to the Independent Administrator prior to the initiation of treatment.

The following specific requirements must be satisfied in order to grant a TUE for ADD or ADHD:

1. Evaluation within the last 3 years by a psychiatrist, other physician who has specialized in the treatment of ADD and ADHD or a knowledgeable physician working with a psychologist who works in this area;
2. Pertinent and current history, physical examination and testing, which must be reported including:
   a. Complete history and physical examination, which must include a thorough neurological evaluation, including a thorough and complete concussion history with appropriate brain imaging if indicated and any neuropsychological testing performed to distinguish between post concussive symptoms and ADHD;
   b. The presence or absence of other mental health disorders should be established via longitudinal clinical psychiatric history
   c. Any evaluation or testing for medical and mental health co-morbidities (hypothyroidism, depression, etc.), including laboratory tests, imaging studies or neuropsychological testing (does not replace longitudinal psychiatric or concussion history);
   d. ADD/ADHD comprehensive diagnostic scale (symptom scales are not acceptable) assessing symptoms and impairment used to support the diagnosis of ADD or ADHD, including:
      i. Conners Adult ADHD diagnostic inventory (CAADID); or
      ii. Adult ADHD Clinician Diagnostic Scale (ACDS) v1.2; or
      iii. Barkley Diagnostic Scale with Barkley Impairment Scales;
      iv. Diagnostic Interview for ADHD in adults (DIVA 2.0); and
   e. Additional testing as indicated by clinical evaluation.
3. All available records from previous evaluations that document diagnosis, including any previous test results, previous treatments that have been attempted (include doses and duration of treatment) and the results of such treatment trials;
4. Specification of the DSM-IV criteria that are present to diagnose ADD/ADHD; and
5. Management plan, to include:
   a. Medication prescribed, including dosage and frequency of medication; Treatment with non-prohibited substances should be included;
   b. Mechanism to be used to document treatment effectiveness (e.g., the use of rating scales, such as the World Health Organization’s Adult ADHD Self Report Scale (ASRS v1.1). Symptom Checklist can be given before beginning treatment and at follow-up visits). These symptom scales can be used for documentation of treatment but not for diagnosis.
   c. Further testing or treatment of co-morbidities; and
   d. Plans for follow-up visits.
Additionally, it is strongly suggested in all cases, and required if there is any question that the player may have a learning disability, that the initial TUE application include the following:

1. Neurocognitive testing for learning disabilities, including:
   i. Wechsler Adult Intelligence Scale-III;
   ii. Wechsler Individual Achievement Test-II or Woodcock Johnson Tests of Cognitive Abilities – III;
   iii. Specific tests of executive function and impulse control; and
   iv. Appropriate testing to assess learning disabilities as indicated in clinical history.
2. Verification of the symptoms and behaviors by another person, e.g., a family member, coach, teacher, supervisor or school records. An evaluation by a second expert clinician would also suffice.

Annual renewal

All TUEs for ADD/ADHD require an annual renewal. The following must be submitted annually prior to July 1, 2014:

1. Documentation of all follow-up visits (minimum of 2), including symptoms, efficacy of treatment and treatment of co-morbid conditions. The most recent follow-up visit must take place within 60 days of the TUE renewal application;
2. Results of any pertinent testing that was completed during the previous year, including the mechanism used to document treatment effectiveness (e.g., rating scales such as the World Health Organization’s Adult ADHD Self Report Scale (ASRS v1.1)); and
3. Treatment plan for the coming year, including medication(s) prescribed, tests ordered and plans for follow-up visits.

A full evaluation must be performed every three (3) years.
NFL Requirements for Therapeutic Use Exemption (TUE):

Diuretics in the Treatment of Hypertension

Systemic hypertension is the most common cardiovascular condition observed in competitive athletes and is defined as a having a blood pressure measurement above 140/90 on two separate occasions. There are many factors or conditions which affect blood pressure including excess body weight, excess sodium intake, renal disease, sleep apnea and other diseases. In addition, certain medications and foods can cause elevated blood pressure including, non-steroidal anti-inflammatory medication, stimulants, corticosteroids, anti-depressant medication and alcohol. Lifestyle, medications and presence of causative diseases should be included in the evaluation and treatment of an individual with hypertension. The use of diuretics as part of the treatment of NFL players with hypertension requires a TUE.

Initial TUE application

As a reminder, all TUE applications must be sent to the Independent Administrator prior to the initiation of treatment.

The following specific requirements must be satisfied in order to grant a TUE for the use of diuretics for hypertension:

1. History and physical examination with blood pressure measured on at least two independent occasions with an adequate sized cuff;
2. Laboratory testing must include:
   a. 12 lead electrocardiogram
   b. Urinalysis
   c. Electrolytes including Calcium
   d. BUN/Creatinine
   e. Urinalysis
3. Testing as indicated including:
   a. 24 hour urine for protein and creatinine
   b. Renal imaging
   c. Echocardiography
   d. EKG stress testing
4. Management plan including:
   a. Treatments previously attempted including lifestyle modification and medication (including dose, frequency and duration of trial of treatment). Trial with a non-prohibited substance (e.g. ACE-I, ARB, calcium channel blocker, etc) is required before the use of a diuretic will be approved.
   b. Medication suggested with dose, route and frequency
   c. Plan for monitoring including frequency of visits and follow-up testing

Annual Renewal

All TUEs for hypertension require annual renewal. The following must be submitted prior to July 1:

1. Documentation of all follow-up visits including effect of treatment, adverse effects and results of all laboratory tests. The latest visit should be within 60 days of renewal; and
2. Management plan for the year, including:
   a. Medication suggested with dose, route and frequency
   b. Plan for monitoring including frequency of visits and follow-up testing.
NFL Requirements for Therapeutic Use Exemption (TUE):

**Hypogonadism**

Hypogonadism is the absent or decreased function of the testes resulting in decreased production of testosterone and/or decreased production of spermatozoa. Hypogonadism can be primary, a problem in the testes with etiologies such as Klinefelter’s syndrome, Leydig cell aplasia, bilateral anorchia, testicular infection, trauma, etc. Hypogonadism can also be secondary with normal testes but lack of the stimulatory signals (gonadotropic hormones LH and/or FSH). Examples of the medical conditions or treatments that may cause hypogonadotropic hypogonadism include isolated LH deficiency, hypopituitarism due to tumor, infection or trauma, medications, etc.

Previous use of exogenous androgens may result in decreased pituitary and/or gonadal function and TUE is not indicated for this condition. Additionally, low normal levels of gonadal hormones and/or gonadotropins are not indications for granting a TUE for hypogonadism.

**Initial TUE application**

As a reminder, all TUE applications must be sent to the Independent Administrator prior to the initiation of treatment. Additionally because expanded drug testing is required during evaluation process (see below), the Independent Administrator should be notified when diagnosis is being considered.

The following specific requirements must be satisfied in order to grant a TUE for hypogonadism:

1. History and physical examination performed by an endocrinologist and all medical records which document the diagnosis;
2. Laboratory testing must include:
   a. Free (dialysis method) and Total testosterone drawn before 10 AM – repeated 3 times over 4 weeks
   b. LH and FSH – drawn with testosterone each time
   c. Sex hormone binding globulin (SHBG)
   d. TSH and free T4
   e. Estradiol
   f. Prolactin
   g. IGF-1
3. If clinically indicated, testing must include:
   a. Testicular imaging
   b. Semen analysis
4. If hypogonadotropic hypogonadism is the presumptive diagnosis, then stimulation testing and imaging must be performed including:
   a. Glucagon stimulation test or GHRH for HGH
   b. HCG stimulation test
   c. MRI of brain with pituitary (sella) cuts with and without contrast
5. Drug testing under the NFL Policy on Anabolic Steroids and Related Substances to coincide with the administration of repeated tests for testosterone (to be arranged through the Independent Administrator)
6. Management plan including:
   a. Medication suggested with dose, route and frequency and who will be administering medication
   b. Regular testing of serum hormone levels (Free and total testosterone, LH, FSH) with levels not exceeding therapeutic range. Results must be sent to Independent Administrator who may at his sole discretion require additional testing of the player’s hormonal level on 24 hour notice; and
   c. Regular visits and plans for re-evaluation (e.g. trial off medication with testing)

All players granted a TUE for hypogonadism will be subject to expanded testing under the Policy during the year.
Annual Renewal

All TUEs for hypogonadism require annual renewal. The following must be submitted prior to July 1:

1. Documentation of all follow-up visits including effect of treatment, adverse effects and results of all laboratory tests (latest test must be within 60 days of application);
2. Results of a re-evaluation following removal from the medication with adequate washout period (4-6 weeks) or medical justification why re-evaluation need not be performed.
3. Management plan for the year to include:
   a. Medication suggested with dose, route and frequency and who will be administering medication
   b. Regular testing of hormone levels (Free and total testosterone, LH, FSH)
   c. Regular visits and plans for re-evaluation (e.g. trial off medication with testing)
APPENDIX J

WADA Technical Document – TD2014IRMS

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<th>TD2014IRMS</th>
<th>Version Number:</th>
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<td>WADA Laboratory Expert Group</td>
<td>Approved by:</td>
<td>WADA Executive Committee</td>
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<tr>
<td>Date:</td>
<td>17 May 2014</td>
<td>Effective Date:</td>
<td>1 September 2014</td>
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Detection of synthetic forms of Endogenous Anabolic Androgenic Steroids by GC-C-IRMS

1.0 Introduction

This Technical Document describes the analytical method to detect the presence of synthetic forms of endogenous anabolic androgenic steroids (EAAS) by Gas Chromatography – Combustion - Isotope Ratio Mass Spectrometry (GC-C-IRMS) in urine Samples.

Consideration is also given to boldenone and to formestane\(^1\), which may be naturally found in urine Samples at low concentrations. 19-norandrosterone (19-NA) and 19-nortestosterone (19-NE) are considered in a separate Technical Document [1] and the technical recommendations and requirements described herein shall not be applied to their analysis.

1.1 Application of GC-C-IRMS

GC-C-IRMS analyses shall be conducted as a Confirmation Procedure when the Laboratory receives an "Atypical Passport Finding (ATPF) Confirmation Procedure Request" or a "Suspicious Steroid Profile Confirmation Procedure Request" notification through ADAMS, as described in the Technical Document on the Measurement and Reporting of EAAS (TDEAAS) [2].

In addition, a GC-C-IRMS analysis can be requested to be performed on any urine Sample by the Testing Authority, the Athlete Passport Management

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\(^1\) Formestane (4-hydroxyandrost-4-en-3,17-dione) is an aromatase inhibitor but its structure is similar to EAAS and it also may be found naturally in urine Samples; therefore, it requires a similar Analytical Testing approach as EAAS.

\(^2\) The Laboratory shall receive the automatic “Suspicious Steroid Profile Confirmation Procedure Request” notification through ADAMS 14 calendar days after Sample reception. The Laboratory shall proceed with the GC-C-IRMS Confirmation Procedure unless, after contacting the Testing Authority, the Testing Authority can justify that the GC-C-IRMS analysis is not necessary. If no feedback is received from the Testing Authority within 7 calendar days, the Laboratory shall proceed with the GC-C-IRMS confirmation analysis.

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Unit (APMU), or WADA, even if the Markers of the "steroid profile" are within the normal ranges.

Furthermore, the Laboratory may at any time advise\(^3\) the Testing Authority to perform (or not) GC-C-IRMS analyses based upon its expertise, for example in the presence of any other Marker of administration of EAAS such as 6α-hydroxyandrostanedione, 3α,5-cyclo-5α-androstan-6β-ol-17-one, 6β-hydroxyandrosterone or 6β-hydroxyepiandrosterone (sulfates), or an altered ratio of 7β-hydroxydehydroepiandrosterone to 16α-hydroxyandrosterone (sulfates).

1.1.1 GC-C-IRMS analysis for formestane, boldenone or boldenone metabolite(s)

In Samples containing formestane, boldenone or boldenone metabolite(s), the GC-C-IRMS analysis for these compounds shall be conducted before reporting an Adverse Analytical Finding when their estimated SG-adjusted\(^4\) concentrations are as follows:

- Concentration of formestane between 50 ng/mL and 150 ng/mL.
- Concentration of boldenone and/or its metabolite(s) between 5 ng/mL and 30 ng/mL.

Laboratories that do not have the analytical capacity to perform GC/C/IRMS analysis for formestane and/or boldenone or boldenone metabolite(s) shall have the Sample analyzed by another Laboratory that has such analytical capability.

Findings for boldenone and/or its metabolite(s) at concentrations estimated below 5 ng/mL (SG-adjusted\(^4\), if needed) are to be considered as Atypical Findings, unless the results of the GC-C-IRMS analysis, if performed (depending on Laboratory’s analytical capacity and following consultation with the Testing Authority), conclusively establish the exogenous origin of the substance (Adverse Analytical Finding).

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\(^3\) Or as covered by contractual agreement between the Laboratory and the Testing Authority.

\(^4\) When the SG of the urine Sample is greater than 1.020, the concentrations are adjusted to a SG of 1.020 based on the following equation (free and hydrolyzed glucuroconjugated steroids).

\[
\text{Conc}_{\text{adj}} = \frac{\text{Conc}_{\text{meas}}}{(1.020 - 1)/(\text{SG} - 1)}
\]
Concentrations for formestane below 50 ng/mL (SG-adjusted, if needed) are to be considered as negative, unless the results of the GC-C-IRMS analysis, if performed (depending on Laboratory’s analytical capacity and following consultation with the Testing Authority), conclusively establish the exogenous origin of the substance (Adverse Analytical Finding).

Findings above 30 ng/mL for boldenone and/or its metabolite(s) or above 150 ng/mL for formestane (SG-adjusted) shall be considered as Adverse Analytical Findings without the need for GC-C-IRMS analysis.

1.1.2 B Sample Confirmation Procedure

When an Adverse Analytical Finding is reported for the Markers of the “steroid profile” or for non-threshold substances such as formestane, boldenone or boldenone metabolite(s) based on the results of a GC-C-IRMS analysis performed on the A Sample, the GC-C-IRMS analysis shall also be performed during the B Sample Confirmation Procedure, if applicable.

2.0 GC-C-IRMS analysis

The application of GC-C-IRMS is based on the determination of the δ¹³C value of urinary metabolites or target compounds (TC) (e.g. Androsterone (A), Etocholanolone (Eto), 5α-androstane-3α,17β-diol (5αAdiol), 5β-androstane-3α,17β-diol (5βAdiol), Testosterone (T), Epitestosterone (E), boldenone, formestane and others) and the difference in δ¹³C values, i.e. the Δδ¹³C value, between the endogenous reference compound(s) (ERC) and the TC.

The GC-C-IRMS analysis shall be conducted in a single Sample Aliquot.

2.1. GC-C-IRMS Method Characteristics

Laboratories shall implement the following in their GC-C-IRMS methodology:

- As part of the method validation, the Laboratory shall determine the range of peak intensities for each analyte that gives a consistent δ¹³C value (signal independency, linearity).

- The system shall be calibrated periodically against a steroid Reference Material (RM) (e.g. CU/USADA 34, CU/USADA 35, or other mixture of steroid(s)) that is traceable to the assigned values of the recognized international RM. Major revisions of the system (e.g. change of
reference gas, cleaning of the ion source, etc.) shall require calibration of the system.

- The stability of CO₂ pulses shall be tested before the analysis of each batch of Samples. The linearity of the signal (with pulses of CO₂) shall be checked regularly, e.g. monthly.

- The urinary TC(s) and ERC(s) once hydrolyzed shall be further purified by High Performance Liquid Chromatography (HPLC) (recommended), Solid Phase Extraction (SPE) or other equivalent purification step prior to the GC-C-IRMS analysis.

- The following controls and RMs shall be included in each batch of Samples analyzed and subjected to the same Sample preparation procedure:
  - A negative⁵ and a positive urinary control sample. The relevant TC shall meet the positivity criteria in the positive urine control sample.
  - An appropriate RM for the relevant TC(s) and ERC(s), with known δ¹³C value(s).

- Laboratories shall be capable of performing GC-C-IRMS analyses on A, Etio, 5αAdiol, 5βAdiol, T and E. When the concentration is sufficient, the TC(s) should be selected/prioritized depending on the variable(s) of the “steroid profile” that prompted the GC-C-IRMS analysis.

- T, 5αAdiol and/or 5βAdiol are the preferred TC(s) to detect the administration of T.

- The analysis should be based on the use of pregnanediol (PD) as the principal ERC. However, another ERC, either 5α-androst-16-en-3α-ol (16-en), 11β-hydroxyandrosterone (11-OHA) or 11-keto-etiocholanolone (11-O-Etio) should also be routinely used, since PD may be suppressed, affected by poor chromatography or by the administration of pregnenolone. The same ERC shall be used for the determination of all the Δδ¹³C values.

- No value obtained from peaks of intensity below or above the range of linearity or in the presence of significant co-eluting peaks shall be considered or reported.

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⁵ This does not apply to GC-C-IRMS determinations for boldenone and formestane.
As estimated from validation experiments, the combined standard measurement uncertainty \((u_c)\) for the determination of the \(\delta^{13}C\) values shall be not higher than 1.0 \(\text{‰} \) \((u_{c \text{ max}})\).

The Laboratory shall determine the \(\Delta \delta^{13}C\) values for each ERC-TC pair analyzed in a population of volunteers and Athlete negative Samples (a minimum of 20 male and 20 female urine samples)\(^9\).

The steroids may be analyzed underivatized or after acetylation, but only values equivalent to free compounds shall be used to determine the \(\Delta \delta^{13}C\) value of the ERC-TC pair. The following mass balance equation for adjustment of the measured \(\delta^{13}C\) values from acetates back to the free form shall be used:

\[
\delta C_s = \frac{(n_{cd} \delta C_{cd} - n_d \delta C_{dcorr})}{n_s}
\]

where \(n\): number of carbon atoms; \(s\): native steroid (underivatised form); \(d\): derivative group (e.g. acetyl), and \(cd\): derivatised compound.

As \(\delta C_i\) is not known, \(\delta C_{dcorr}\) is estimated empirically by consecutive measurements of a non-acetylated and acetylated steroid (e.g. 5α-Adiol, 5β-Adiol or PD).

2.2 Identification of urinary metabolites prior to reporting an Adverse Analytical Finding

- A GC-MS analysis is required to ensure the identity of the peaks of the relevant TC(s) and ERC and the absence of significant interference prior to reporting an Adverse Analytical Finding based on GC-C-IRMS results. This is not necessary when the GC-C-IRMS results are inconclusive or negative.

- The same mixtures shall be analyzed by GC-MS under similar chromatographic conditions. Minor differences in retention times (RT) between the two techniques are expected. The provisions of the Technical Document on Identification Criteria (TDIDCR) shall be followed [3].

- In cases when the GC-C-IRMS analysis demonstrates the exogenous origin of TC(s), the Laboratory shall confirm the relevant Marker(s) of the "steroid profile" following the Confirmation Procedure described in the TDEAAS [2].
2.3 Interpretation of GC-C-IRMS results

The results of the GC-C-IRMS analyses shall be interpreted as follows:

**Positive**

When $\Delta^{13}C$ value(s) are consistent with the exogenous origin of the TC(s), *i.e.* if one of the following sets of criteria is met\(^6\) (Appendix 1):

i. The $\Delta^{13}C$ value of the pair ERC-T, and one of the pairs ERC-5αAdiol or ERC-5βAdiol shall be greater than $3.0^{\circ}/_{oo}$ in males or in females provided that the concentration of the TC and ERC is within the linear range of the method.

ii. The $\Delta^{13}C$ value of both pairs ERC-5αAdiol and ERC-5βAdiol shall be greater than $3.0^{\circ}/_{oo}$.

iii. For E, when the concentration is greater than 50 ng/mL (Sg-adjusted), the $\Delta^{13}C$ value of the pair ERC-E shall be greater than $4.0^{\circ}/_{oo}$.

iv. The $\Delta^{13}C$ value of the pair ERC-A or ERC-Etio shall be greater than $3.0^{\circ}/_{oo}$ and $4.0^{\circ}/_{oo}$, respectively.

v. Alternatively, if the $\Delta^{13}C$ value of the pair ERC-A is between $2.0^{\circ}/_{oo}$ and $3.0^{\circ}/_{oo}$ and/or the $\Delta^{13}C$ value of the pair ERC-Etio is between $3.0^{\circ}/_{oo}$ and $4.0^{\circ}/_{oo}$, the $\Delta^{13}C$ value of one of the pairs ERC-5αAdiol or ERC-5βAdiol shall be greater than $3.0^{\circ}/_{oo}$.

vi. The $\Delta^{13}C$ value of the ERC-5αAdiol pair shall be greater than $4.0^{\circ}/_{oo}$ in combination with the $\delta^{13}C$ value of the 5αAdiol being equal or lower than $-27^{\circ}/_{oo}$ (e.g. DHT administration).

vii. The $\Delta^{13}C$ value of the pair ERC-formestane, ERC-boldenone and/or ERC-boldenone metabolite shall be greater than $4.0^{\circ}/_{oo}$.

For all of the above cases i) to vii), the $\Delta^{13}C$ value of the diagnostic ERC-TC pair in the Sample shall be greater than the mean $\Delta^{13}C + 3$ standard deviations (SD) value of that pair in the population of negative samples measured by the Laboratory.

\(^6\) It is not expected that all metabolites will be affected to the same extent. Decisions based on the $\Delta^{13}C$ criteria specified in i) to vii) take into account the measurement uncertainty associated with the contributing $\delta^{13}C$ values.
Negative

When $\Delta^{13}C$ values do not confirm the exogenous origin of the TCs, i.e. when the $\Delta^{13}C$ values of the ERC-TC pairs are within the mean $\Delta^{13}C + 3$ SD value for the population of negative samples measured by the Laboratory.

Inconclusive

i) When only one of the combined criteria specified in points i), ii), v) or vi) above is met (e.g. $\Delta^{13}C$ value for the pair ERC-T > 3 $^\circ/_{oo}$ but $\Delta^{13}C$ for both pairs of ERC-Adiol < 3 $^\circ/_{oo}$).

ii) Due to technical limitations e.g. when there is insufficient Sample volume or very low concentrations of TCs or ERCS, or in the presence of interfering compounds or any other factor preventing a reliable measurement of the relevant diagnostic metabolite or ERC-TC pair.

iii) The Laboratory can interpret the results as inconclusive when the criteria for reporting an Adverse Analytical Finding are not met but in its opinion are neither consistent with the endogenous origin of the urinary metabolites (e.g. ERC $^{13}C$ value at -24.5 $^\circ/_{oo}$ and TC at -27.0 $^\circ/_{oo}$).
3.0 Reporting GC-C-IRMS Results

The Laboratory shall report the results of the GC-C-IRMS analyses as follows:

1. Adverse Analytical Finding

Samples for which the results of the GC-C-IRMS analysis were positive:

- Each Sample for which an Adverse Analytical Finding is reported shall be reported individually.
- The Test Report shall include:
  - A comment indicating that the GC-C-IRMS finding is consistent with an exogenous origin of the TC(s), specifying the identity of the TC(s) analyzed and confirmed.
  - The $\delta^{13}$C value of the relevant TC(s) and ERC, and the associated $u_c$, expressed in units.
  - The confirmed values (e.g., concentrations, T/E ratios) of the relevant Marker(s) of the "steroid profile" and the associated $u_c$, expressed in units [2].

Reporting example for the Test Report:

GC-C-IRMS results are consistent with the exogenous origin of testosterone and 5βAdiol ($\delta^{13}$C values: $T = -27.5 \frac{\%}{oo}$; $5\beta$Adiol$ = -25.2 \frac{\%}{oo}$; PD = -20.2 $\frac{\%}{oo}$; $u_c = 0.8 \frac{\%}{oo}$). T/E = 4.5, $u_c = 0.5$.

Provision of a Second Opinion for GC-C-IRMS

When the results of the GC-C-IRMS analysis indicate an Adverse Analytical Finding for a Sample, the Laboratory should seek the opinion of an expert from a second Laboratory before reporting the Adverse Analytical Finding.

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7 When the GC-C-IRMS Confirmation Procedure is applied to formestane, boldenone or boldenone metabolite(s) only, the Laboratory does not need to perform the quantitative confirmation of these substances, or report confirmed values of the Markers of the "steroid profile".
2. Atypical Finding

Samples for which the results of the GC-C-IRMS analysis were inconclusive:

- Each Sample for which an Atypical Finding is reported shall be reported individually.
- The Test Report shall include:
  - A comment indicating that the GC-C-IRMS finding is inconclusive specifying the identity of the TC(s) analyzed and confirmed.
  - The $\delta^{13}$C value of the relevant TC(s) and ERC, and the associated $u_c$, expressed in units.
  - The confirmed T/E ratio and the associated $u_c$, expressed in units [2].

Reporting example for the Test Report:
The results of the GC-C-IRMS analysis for testosterone and 5α-Adiol are inconclusive ($\delta^{13}$C values: T = -27.6 $^{\circ}/_{oo}$; 5α-Adiol = -26.2 $^{\circ}/_{oo}$; PD = -24.5 $^{\circ}/_{oo}$; $u_c = 0.8$ $^{\circ}/_{oo}$). T/E = 10.2, $u_c = 0.8$.

3. No Prohibited Substance(s) or Metabolite(s) or Marker(s) of a Prohibited Method(s) on the test menu were detected

Samples for which the results of the GC-C-IRMS analysis were negative:

- The Test Report shall include:
  - A comment mentioning that the GC-C-IRMS results do not indicate an exogenous origin of the TCs.
  - The confirmed T/E ratio and the associated $u_c$, expressed in units [2].

Reporting example for the Test Report:
GC-C-IRMS results do not confirm the exogenous origin of the urinary metabolites of testosterone related steroids. T/E = 7.4, $u_c = 0.7$. 
4.0 Interpretation

- The GC-C-IRMS and GC-MS or GC-MS/MS methods provide independent and complementary information, but their results must be considered together to bring a conclusion that is supported by the scientific literature and knowledge.

- The urinary “steroid profile” may show no major anomaly whilst being excreted following the administration of a steroid related to T; in such a case, the results of the GC-C-IRMS analysis indicating a synthetic origin of the steroid metabolites shall prevail.

- Conversely, values for variable(s) of the “steroid profile” may be outside the subject-based longitudinal reference range while being of endogenous origin (e.g. heavy ethanol drinking leading to an increased urinary excretion of T and 5β-Androstanediol, microbial formation of free T, or intense, prolonged exercise increasing the excretion of A).

- The “steroid profile” may be altered by the administration of a preparation of a steroid related to T of relatively enriched $\delta^{13}$C value, which may not be detected by GC-C-IRMS. In such cases, the provisions of the Technical Document on Results Management Requirements for the Athlete Biological Passport (TDRMR) shall be followed [4].

5.0 References


Appendix 1. Interpretation criteria for GC-C-IRMS positive test

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<th>Positive Criteria</th>
<th>$\Delta \delta_{\text{ERC-TC}} &gt; (\Delta \delta + 3\text{SD})$ Population Negative Samples</th>
<th>$\Delta \delta_{\text{ERC-TC}}$ Boldenone or Formestane</th>
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<td>iv.</td>
<td>$&gt; 4 %_{00}$</td>
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<td>v.</td>
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<td>$&gt; 3 %_{00}$</td>
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<td>vi.</td>
<td>$3-4 %_{00}$</td>
<td>$&gt; 3 %_{00}$</td>
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<td>vii.</td>
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*Concentration (SG-adjusted) greater than 50 ng/mL.*