

## LPGA Prohibited Substance Classes and Prohibited Methods<sup>1</sup> 2017

**The LPGA list of prohibited classes and prohibited methods is subject to change by the LPGA.**

The term “related substances and compounds” comprises substances that are included in the class by their pharmacological action and/or chemical structure. No substance belonging to the prohibited class may be used at any time, regardless of whether it is specifically listed below as an example of a substance within that class.

**NOTE: Many nutritional and/or dietary supplements may contain LPGA prohibited substances. In addition, the U.S. Food and Drug Administration (FDA) does not strictly regulate the supplement industry; therefore, purity and safety of nutritional and/or dietary supplements cannot be guaranteed. Impure and/or contaminated supplements may lead to a LPGA positive drug test. The use of nutritional and/or dietary supplements is at the LPGA player’s own risk.**

### THE FOLLOWING IS THE LIST OF PROHIBITED CLASSES AND METHODS WITH SOME EXAMPLES IDENTIFIED:

1. **Anabolic Agents:** Anabolic agents are used as athletic performance enhancers to achieve increases in muscle mass, strength and speed; to improve recovery from training; and to increase mental aggressiveness.

androstenediol, androstenedione, bolandiol, bolasterone, boldenone, boldione, calusterone, clostebol, danazol, dehydrochlormethyltestosterone, dehydroepiandrosterone (DHEA), desoxymethyltestosterone, dihydrotestosterone, drostanolone, epitrenbolone, ethylestrenol, fluoxymesterone, formebolone, furazabol, gestrinone, 4-hydroxytestosterone, mestanolone, mesterolone, metandienone, metenolone, methandienone, methandriol, methasterone, methenolone, methyldienolone, methyl-1-testosterone, methyltestosterone, metribolone, methyltrienolone, mibolone, nandrolone, norandrostenedione, 19-norandrostenediol, 19-norandrostenedione, norandrostenediol, 19-noretiocholanolone, 19-norandrosterone, norboletone, norclostebol, norethandrolone, oxabolone, oxandrolone, oxymesterone, oxymetholone, prasterone, prostanazol, quinbolone, stanozolol, stenbolone, testosterone, 1-testosterone, tetrahydrogestrinone (THG), trenbolone; **and all related substances and compounds**

2. Substances having **anabolic properties and/or anabolic effects**, including but not limited to: clenbuterol, selective androgen receptor modulators (SARMs, e.g., andarine and ostarine), tibolone, zeranol, zilpaterol

3. **Peptide Hormones, Growth Factors and Related Substances:** The following and their releasing factors are prohibited: erythropoiesis-stimulating agents (e.g., erythropoietin (EPO), darbepoetin, EPO-Fc, EPO-mimetic peptides, GATA inhibitors, methoxy polyethylene glycol-epoetin beta, transforming growth factor- $\beta$  inhibitors), non-erythropoietic EPO-Receptor agonists (e.g., ARA-290, asialo EPO, carbamylated EPO), hypoxia-inducible factor stabilizers, hypoxia-inducible factor (HIF) stabilizers (e.g., cobalt, molidustat and roxadustat (FG-4592)) and HIF activators (e.g., xenon, argon), methoxy polyethylene glycolepoetin beta, peginesatide; corticotrophins; growth hormone, insulin-like growth factor, fibroblast growth factors, mechano growth factors, platelet-derived growth factor, vascular-endothelial growth factor, and hepatocyte growth factor, as well as any other growth factor affecting muscle, tendon or ligament protein

<sup>1</sup> The LPGA list of prohibited classes and prohibited methods is subject to change by the LPGA.

synthesis/degradation, vascularization, energy utilization, regenerative capacity or fibre type switching; and **all related substances and compounds**.

4. **Stimulants**: Stimulants are used as athletic performance enhancers to improve concentration and alertness, increase aggressiveness and to relieve the perception of fatigue during practice and competition.

Adrafinil, adrenaline (epinephrine), amfepramone, amiphenazole, amphetaminil, amphetamine, benfluorex, benzphetamine, benzylpiperazine, bromantan, cathine (when concentration is greater than 5 micrograms per milliliter), cathinone and its analogues, chlorphentermine, clobenzorex, cocaine, cropropamide, crotetamide, crothetamide, dimethylamphetamine, dimethylamylamine, dimethylamylamine (DMAA), dimethylpentylamine, fenproporex, furfenorex, heptaminol, ephedrine (ephedra, ma huang)(greater than 10 micrograms per milliliter), ethamivan, ethylamphetamine, etilamphetamine, etilefrine, famprofazone, fenbutrazate, fencamfamine, fencamine, fenetylline, fenfluramine, fenproporex, fonturacetam, furfenorex, geranamine, geranium oil, heptaminol, hydroxyamfetamine, isometheptene, lisdexamphetamine, levmetamphetamine, meclofenoxate, mefenorex, mephentermine, mesocarb, methamphetamine, p-methylamphetamine, methylenedioxyamphetamine, methylenedioxymethamphetamine (MDMA, ecstasy), methylephedrine, methylhexaneamine, methylphenidate, methylsynephrine, modafinil, nikethamide, norfenefrine, norfenfluramine, octopamine, oxilofrine, parahydroxyamphetamine, pemoline, pentetrazol, phenethylamine and its derivatives, phendimetrazine, phenmetrazine, phrenpromethamine, phentermine, phenylpropanolamine (ppa), prenylamine, prolintane, propylhexedrine, p-methylamphetamine, selegiline, sibutramine, strychnine, tuaminoheptane; **and all related substances and compounds**

The following stimulants are **not** prohibited: caffeine, phenylephrine, pseudoephedrine, synephrine

5. **Beta-Blockers**: Beta-blockers work as performance enhancers in sport because they diminish the effects of adrenaline, the hormone that increases heart rate in times of anxiety or fear. Beta-blockers reduce the heart rate, which in turn creates a calming effect and decreases hand tremors.

acebutolol, alprenolol, atenolol, betaxolol, bisoprolol, bunolol, carteolol, carvedilol, celiprolol, esmolol, labetalol, levobunolol, metipranolol, metoprolol, nadolol, oxprenolol, pindolol, propranolol, sotalol, timolol; **and all related substances, and compounds**

6. **Agents With Anti-Estrogenic Activity**: Anti-estrogenic substances serve as masking agents because they may reduce the negative physical side effects of using prohibited anabolic steroids. The following classes of anti-estrogenic substances are prohibited:

- Aromatase inhibitors including but not limited to, androstene-3,6,17 trione (6-oxo), anastrozole, androsta-1,4,6-triene-3,17-dione (androstatrienedione), androsta-3, 5-diene-7, 17-dione (arimistane), letrozole, aminoglutethimide, exemestane, formestane, testolactone
- Selective Estrogen Receptor Modulators (SERMs) including but not limited to, raloxifene, tamoxifen, toremifene

- Other anti-estrogenic substances including but not limited to, clomiphene, cyclofenil, fulvestrant
  - Agents modifying myostatin function(s) including but not limited to, myostatin inhibitors
  - Metabolic modulators: activators of the AMP-activated protein kinase (AMPK)(e.g., AICAR), insulins, peroxisome proliferator activated receptor agonists, meldonium, and trimetazidine
7. **Diuretics and Other Masking Agents:** The LPGA prohibits the use of substances and methods that alter the integrity and/or validity of urine samples provided during LPGA drug testing. Examples of banned substances are listed below.

Masking agents are prohibited. They include but are not limited to: diuretics, desmopressin, epitestosterone, probenidol, plasma expanders (e.g., glycerol; intravenous administration of albumin, dextran, hydroxyethyl starch and mannitol) alpha-reductase inhibitors (e.g. finasteride); **and related substances and compounds**

Diuretics are prohibited. They include but are not limited to, acetazolamide, amiloride, bumetanide, canrenone, chlorthalidone, chlorothiazide, etacrynic acid, furosemide, hydrochlorothiazide, hydroflumethiazide, indapamide, metolazone, spironolactone, other thiazides (bendroflumethiazide, hydrochlorothiazide), triamterene, and vaptans (e.g., tolvaptan); **and all related substances and compounds**

8. **Non-Approved Substances:** Any pharmaceutical substance which is not addressed by any of the prior sections above and with no current approval by any governmental regulatory health authority for human therapeutic use (e.g., drugs under pre-clinical or clinical development or discontinued) is prohibited at all times.

### **PROHIBITED METHODS**

**Chemical and Physical Manipulation:** The LPGA prohibits the use of substances and methods that alter the integrity and/or validity of urine samples provided during LPGA drug testing. Examples of banned methods are catheterization, urine substitution and/or urine tampering, or modification of renal excretion by the use of diuretics and/or masking agents.

LPGA<sup>®</sup>