

STEROIDS IN GOLF?

Forget the old image of muscleheaded maniacs: In today's climate, here's why the tours plan to test.
by Matthew Rudy



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TOUR SURVEY / STEROIDS*

If the tour begins testing for steroids, do you think any players will test positive?

No 76% / Yes 9% / Uncertain 15%

"I know—I know—there are golfers who are doing something, whether it's HGH or creatine or steroids. I know for a fact some golfers are doing it."

As far as sweeping indictments of a sport's pharmaceutical cleanliness go, Gary Player's allegation before the British Open at Carnoustie was hardly at the top of the controversy Richter scale. It came just a week before the leader of the Tour de France was kicked out of the race after missing pre-race drug tests, two other full teams withdrew because riders flunked screens during the race, and more doping allegations swirled around baseball.

Player revealed that a tour pro confided in him that he was taking steroids, something Player said he suspected because of "a massive change in him," and estimated that at least 10 golfers around the world are using some form of performance-enhancing drug. "It might be a hell of a lot more," said Player, who also estimated that 50 to 60 percent of athletes in sports are using some sort of performance-enhancing drug. "We're dreaming if we think it's not going to come into golf."

Judging from the reaction of those inside the golf community, Player was either (a) crazy; (b) exaggerating; (c) an out-of-touch, fading star looking for attention—even if it came at the expense of the facts; or (d) all of the above.

"I'm actually shocked at his comments, to be honest," said fellow South African Retief Goosen. "I don't know what Gary is trying to prove. Is he trying to hurt the sport?" Tiger Woods said the most he'd expect a tour player to test positive for was "a hangover." Phil Mickelson said he'd never heard of players using steroids, as did Ernie Els, who said he'd be in trouble only if the tour tested for Advil.

But a wide cross section of scientific experts, trainers and instructors say Player is neither crazy nor wrong. Many of them not only believe performance-enhancing drugs would significantly help golfers, but that far more than the approximately 10 pros Player estimated to be taking drugs are using them to recover from injuries quickly and hit the ball longer.

How many more? As many as half of the top 100 players in the world, according to one prominent trainer.

Even if the true number is closer to zero than 50, it's clear that the idea of professional golf not needing to worry about steroids is as outdated as the notion that golfers aren't athletes. "The reality is that the public is slowly coming to the view that performance-enhancing substances are prolific in sports," says PGA Tour Commissioner Tim Finchem, who is expected to announce a set of anti-doping rules for the tour later this year. "Whether we have an issue or not doesn't matter if people think we have one."

* Survey of 33 men's tour pros, including 10 major-championship winners



WHAT ARE STEROIDS?

It's easy to lump steroids into one general "they make you more muscular" category, but different performance-enhancing drugs produce dramatically different effects. Drugs that athletes would use for help fall into four main categories: anabolic steroids, synthetic hormones, beta-blockers and stimulants.

Anabolic steroids like synthetic testosterone are the workhorses of the performance-enhancing drug world. "When you put your body under constant physical stress, it releases substances called corticosteroids," says Dr. Charles Yesalis, author of *Anabolic Steroids in Sport and Exercise*. "They're the most powerful anti-inflammatories in history. But corticosteroids break down muscle tissues as they work."

Anabolic steroids block the muscles from being broken down, allowing an athlete to train longer, recover faster from that training and build more muscle mass. For a golfer, that means being able to hit more practice balls—and do it more often.

Powerful injected anabolics like stanzolol and deca-durabolin can produce body builder-type gains when taken in conjunction with an aggressive workout regimen. Testosterone creams that are spread on the body before a workout help generate smaller amounts of lean muscle.

Hormone drugs like HGH and EPO have had a central role in the ongoing controversy in baseball. HGH is synthetic human-growth hormone—the substance responsible for bone growth and tissue health—and it is commonly prescribed for its anti-aging effects. EPO is the synthetic form of a natural substance in the body, erythropoietin, that promotes red blood-cell production and increases the cells' ability to carry more oxygen—both of which give an athlete more endurance.

Beta-blockers—known as nerve-calming "helpers" for players with shaky putting strokes—are designed to block the flow of adrenaline and keep the heart rate and blood pressure under control for patients with heart arrhythmia, high blood pressure or glaucoma. Stimulants like amphetamines increase energy level and are more suitable for action sports like football and baseball.

STEROIDS FAQ

Q. What's the difference between the drugs an athlete would use and the ones my doctor would prescribe?

A. In many cases, there's no difference. Many anabolic steroids are prescribed to patients trying to rebuild muscle, and human growth hormone (HGH) is widely prescribed as an anti-aging remedy.

Other types of drugs (corticosteroids like cortisol) are prescribed regularly for their anti-inflammatory abilities: to treat conditions such as respiratory problems, arthritis and rashes. Beta-blockers (like Lopressor or Inderal) are commonly prescribed for heart problems and to regulate blood pressure.

Q. Would steroids help a player who isn't working out regularly?

A. Anabolic steroids like testosterone gel wouldn't help without a training program (the result would mostly be bloating). The main benefit of these drugs is the ability to train longer and recover faster—accelerating training gains, essentially. But people using HGH and beta-blockers can see changes from those drugs without any physical training.

Q. What about supplements like androstenedione

and creatine? Are those steroids?

A. Androstenedione (known as "andro," and famous as the supplement Mark McGwire had in his locker during his 70-home-run season) is considered a "steroid precursor," meaning it promotes testosterone production in the body. You can no longer buy it in the United States, and the World Anti-Doping Agency (WADA) considers it a performance-enhancing drug. Creatine is a natural substance found in meat that promotes energy storage in the body. Athletes take creatine supplements to try to increase energy storage and delay fatigue. It isn't considered a performance-enhancing drug, but the NCAA has banned member schools from distributing it.

Q. What are the most common side effects of steroids?

A. Elevated cholesterol, edema and fertility impairment are among the side effects. "There are no completely safe drugs, prescription or otherwise," says Dr. Charles Yesalis, author of *Anabolic Steroids in Sport and Exercise*. "but we've been prescribing these drugs to people for more than 70 years—at doses much, much higher than a golfer would need—and I don't think doctors have been trying to kill people."

Q. Is there such a thing as "roid rage?"

A. Clinical studies have shown that if "roid rage"—a spontaneous, violent outburst because of

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HOW DO STEROIDS HELP A GOLFER?

Regardless of how many athletes in other sports either admit to using steroids or are caught by their sports' testing programs, many people on and around the professional golf tours remain skeptical about the drugs' bottom-line benefits on the scorecard.

"I don't think there's a pill that can help you do what we do," says Els. "Go ahead and test us, but I just don't see it as a big issue." Woods has said he's willing to be tested "tomorrow," but echoed Els' statement that drugs wouldn't be much of a benefit to a golfer because the game isn't just about strength.

Pia Nilsson, who has taught Annika Sorenstam since Sorenstam was a junior player, says she doubts golfers would get long-term benefit from the drugs. "You need strength, feel, mental clarity—it's a very complex combination of skills," says Nilsson. "I haven't seen any evidence of drugs, but I've heard the rumors, and they've been very unfair. Testing is good—I think it will let us know what's actually happening."

Some drug experts, trainers and other teachers call the idea that a golfer wouldn't benefit from getting stronger naïve. "Tell me a sport where a good big man doesn't beat a good little man," says Yesalis, who has researched steroid use in sports for almost 30 years. "Why are so many players lifting weights if strength doesn't help? Tiger Woods started training seriously when he came out on tour, and he's put on 15 to 20 pounds of muscle. I don't hear anybody saying getting stronger hasn't helped him."

Dr. Jim Suttie, former PGA Teacher of the Year, gives a qualified endorsement of that view: "There's no doubt steroids build muscle and increase strength," says Suttie, who holds a Ph.D. in biomechanics. "Bigger muscles mean more explosive core strength, more explosive hip strength, more arm strength." Suttie believes players taking steroids would be able to hit the ball longer—provided they didn't get too bulky and lose flexibility.

The first piece of any golf doping regimen involves ambitious weight training and cardio work. Anabolic steroids have no effect on a player who isn't adding muscle by working out. The chemical component most commonly mentioned by trainers and

STERIODS FAQ (CONT.)

the hormonal effects of the drugs—exists, it is rare. When professional wrestler Chris Benoit killed his wife and child and then himself in June, steroids were found in his system, but coroners said there's no consensus that the drugs had anything to do with his actions.

Q. Can you tell if somebody is using steroids just by looking at them?

A. When Ben Johnson had yellow eyes and was bursting out of his track shirt in the 100-meter final at the 1988 Olympics, you could. But golfers would need to take just a fraction of the anabolic steroids Johnson took to see improvement. For a golfer, "You're talking about 10 or 15 pounds of new, lean muscle, and somebody looking a little better

in his clothes," says Yesalis.

More telling indicators are dramatic changes in a player's build in a short period of time, and a spike in statistical performance in "strength" categories like driving distance. "An adult working out very hard, who has trained in the past, would be lucky to get three pounds of new muscle mass a year," says Yesalis. "Seeing something more than that is a red flag to me. Does Tiger Woods take steroids? He was a phenom and a long hitter even as a skinny young kid. I'm a pretty suspicious guy, but Tiger's not a guy I would think of as doing them. When I see what he's done at his age and in terms of maturing into his body, fireworks don't go off in my head."

In terms of gaining strength,

Yesalis says a 1 percent measurable improvement relative to peers in a year through natural methods is dramatic. "Florence Griffith-Joyner went from a mediocre sprinter to setting records our grandchildren aren't going to be able to break," Yesalis says of the late gold medalist. "That's a hard thing to explain happening naturally."

Q. Are "recreational" drugs considered performance enhancing?

A. In the Olympic code, drugs like marijuana, cocaine and heroin are banned. The LPGA has banned marijuana and cocaine but will not test for other recreational drugs.

Q. How long do steroids stay in the system?

A. That can vary from as little as a few weeks for testosterone applied as a cream to six months to a year for injected anabolic steroids like dianabol or deca-durabolin. The time varies by the size of the person taking them, the size of the dose and the time the person has been taking the drug.

Q. How come drug tests don't seem to catch all the athletes using steroids?

A. Drug tests look for specific chemical compounds that have been identified as performance enhancing by a sanctioning body like WADA. Athletes hire chemists to produce exotic steroid compounds to which the tests are essentially blind. "I

strongly believe that a large majority of Olympic and world records set over the last 50 years are drug-related," says Yesalis. "Top athletes have the best experts money can buy working for them. They're not getting drugs from some guy in an alley somewhere. You'd have to be pretty foolish to get caught."

Q. What happens to athletes who stop taking steroids?

A. Most commonly, they suffer training injuries because they can't exercise at the same pace or frequency as they did while taking steroids. With long-term anabolic-steroid use, some athletes suffer severe tendon injuries because of the increased load from supporting larger, more explosive muscles. **M.R.**

// GOLF _ TECH _ 2.0 //

experts interviewed for this story was a 5 percent testosterone cream, applied just before each workout. A week's supply of that cream would cost approximately \$40. "That level of steroid would have minimal side effects," says Yesalis. "Certainly nothing that would prevent a golfer from being able to concentrate on the course. At least five different studies have shown that doses far, far larger than this cause no psychological response."

Experts estimate a player could generate 10 percent more clubhead speed using testosterone cream in addition to working out. That translates into roughly 30 more yards of carry for a tour player swinging at 110 miles per hour with a driver. Managed with expert supervision, a player could get the benefits from that relatively small amount of testosterone without even triggering a positive result on a drug test.

"The best players aren't going to be testing positive for steroids," says Randy Myers, who trains more than a dozen tour players. "Small doses of impact drugs—HGH, things like that—that's what the modern athlete is doing. It's barely testable, and it doesn't bulk you up. It builds explosive muscle, which is what all golfers want."

Doctors routinely prescribe HGH to middle-age men to help fight muscle loss and increase suppleness—two things that would obviously help a player prolong a competitive career. HGH is widely available on the Internet illegally without a prescription, or an athlete could visit an anti-aging clinic, where a physician-supervised HGH and nutrition regimen can run more than \$15,000 a year.

"You've got a small window of opportunity in sports, and players are threatened with the loss of millions of dollars if they don't perform," says Yesalis. "You don't think that would tempt somebody to go to the 'dark side,' so to speak? As competitive as golf is, people are going to be doing this just to keep their job."

Myers says he believes no more than a handful of tour players



'Every doctor I go to, without fail, says, "Gary, you must take HGH." ... They say, "It will make you stronger. Your skin will be thicker. ... You'll be more supple. ... You'll start hitting the ball 20 to 30 yards farther.' Gary Player



are using performance-enhancing drugs, but that group includes players who could be doing so unknowingly. "There are trainers out there that nobody knows anything about," says Myers, who has trained tour players since 1989. "There's a lot of money at stake, and players pay bonuses to trainers, teachers and psychologists for things like major championships and money-list finish. There's a lot of pressure on trainers, for sure, to not just show results, but show them fast."

WHAT ARE THE TOURS DOING?

The situation the professional tour officials find themselves in is as much a marketing problem as it is a matter of competitive fairness. Congress threatened to impose anti-doping regulations on baseball, football, basketball and hockey in 2005 if those sports didn't adopt more stringent drug controls, and doping scandals in the Tour de France have threatened the future of the race. "More than anything, a drug policy is smart business," says Yesalis. "If a hand grenade explodes and you get some kind of doping scandal, if you've put together a testing system in good faith—even if it has serious flaws—the fallout isn't as bad."

The PGA announced in late 2006 that it would start random testing for a list of drugs at the start of the 2008 season. Soon after the announcement, it hired the National Center For Drug Free Sport, a sports drug-testing management company run by the former head of the NCAA's drug-testing arm, to help build its policy. "We're not experts in drug testing," says PGA General Counsel Jill Pilgrim, who is in charge of implementing the PGA's new policy. "We can only do as much as the scientists can do in terms of finding out the ways players cheat, and we hope the labs are going to keep up with the cheaters."

The PGA's list of banned substances contains anabolic steroids, beta-blockers and several other drugs, including cocaine and marijuana. The tour will also ban diuretics and drugs that dilute or mask the use of anabolic steroids. Notably absent from the list is HGH; Pilgrim says it's because there are no effective ways to test for that drug yet.

The European tour decided to move forward and standardize its policy because players were already required to take drug tests for tournaments played in France because of that country's sports regulations. Tour chief George O'Grady says rules and penalties regarding performance-enhancing drugs will be in place starting in January 2008.

The PGA Tour has moved more slowly, Finchem says, because it has tried to coordinate its program with other golf organizations to minimize potential conflicts for players competing across tours around the world. "I've been accused of dragging my feet on this. I think I've been deliberate," says Finchem. "We look at other sports, and all we see are problems. I'm not being critical, but this is a complex area. We want to do this in a credible way."

Finchem says the tour expects to have the basics of its policy finalized by the end of the year, with testing likely starting in the second half of 2008. "We need to give the players a list of substances, for the next year. They need to understand how these things get in your body in other ways." The tour is

also building a framework for players to apply for technical use exemptions (TUEs): doctor-certified waivers that would allow a player to use a drug on the prohibited list, as long as it is for an approved medical condition. The TUEs would most commonly be issued for drugs like synthetic testosterone for players suffering from low testosterone, beta-blockers for heart conditions and low blood pressure, and Finasteride for the treatment of an enlarged prostate or baldness.

Deciding to start a testing program is the easy part, says Dr. Gary Wadler, a clinical associate professor of medicine at the NYU medical school and a member of the World Anti-Doping Agency's Prohibited List and Methods Committee. Keeping up with cutting-edge chemical advancements in cheating, managing the testing and handling the administrative details that go with monitoring and penalizing players are the hard parts. "There's no way that a sports organization can handle this effectively itself," says Wadler. "The PGA Tour should have this independently done, and let the chips fall where they may."

Yesalis' view is more pragmatic: "You'd want to keep control of the testing, so that if a star tested positive, you could cover it up and deal with it internally," he says. "You want to pick specific drugs that apply to your sport, like the LPGA has done. There are loopholes, but what we're talking about is the perception, not the actual ethics or morals of what is happening."

More than 1,700 individual drug tests were given to male and female players in 2006 by the International Tennis Federation. Players are automatically suspended for two years for a first doping offense, and banned for life for a second strike. Through early June 2007, 12 male and female players were either suspended for doping or had recently been reinstated after a suspension, including 2005 French Open finalist Mariano Puerta.

Of the major golf tours, the LPGA is the only one that has announced its punishment structure: 25 tournament weeks for a first violation, 50 for a second offense and a lifetime suspension for the third. Finchem says that violating the PGA Tour's rule will be "tantamount to cheating," and the penalties will most likely include suspension. However, he stopped short of saying the tour would announce drug suspensions. The tour does not announce player-misconduct suspensions or fines. "I don't know if we'd announce them," says Finchem. "In the past, when a player is suspended, it seems to be in the paper pretty quick."

Finchem still has questions about testing. "Tell me which sport has the testing mechanism that the public believes catches the cheaters?" he says. "Every one of them has positive tests, but that tells me the sport has cheaters, and if you're not catching them soon enough, the testing isn't being done correctly. I don't know if you're ever going to satisfy everybody. At some point, we have to rely on the integrity of the athletes.

"My attitude toward testing is colored by my strong belief in the culture and history of this sport when it comes to the rules," Finchem says. "The notion that a player would cheat in this sport is an anathema to the athletes. Having said that, we have to recognize the reality that if a player takes a substance that is for whatever reason providing a competitive advantage, that is not a violation of our rules the way they are currently written. Unfortunately, the day we announce there's a mandatory testing program, more people are going to think we have a problem than did before." *

BEYOND STEROIDS: PILLS TO HELP YOUR BRAIN

BY GRANT T. LIU, M.D.

PROFESSOR OF NEUROLOGY / UNIVERSITY OF PENNSYLVANIA

A class of drugs called "mind enhancers" poses a greater potential for abuse in golf than do steroids. Mind enhancers, such as antidepressants and anti-anxiety agents, are legitimate drugs with medical uses, but their effects make up a veritable wish list for the ambitious golfer. They can increase focus, dampen emotional extremes and reduce anxiety. Plus, they're more available than steroids, and there's less of a stigma associated with taking them.

BETA-BLOCKERS / example: Inderal / These blood-pressure medications are sometimes used by performers to deal with stage fright. The golf application would be to battle nerves or the yips. These drugs have been studied in Post-traumatic Stress Disorder, and could help golfers get over a crushing loss.

AMPHETAMINES / example: Adderall / This group of stimulants promotes alertness and focus and is commonly prescribed to treat Attention Deficit Disorder. They're often used illegally by students taking the SATs or final exams. The golf goal could be better concentration during a round.

ANTIDEPRESSANTS AND MOOD DRUGS / example: Prozac / These mood elevators and stabilizers combat stress and depression and help people control emotions. Think of the golfer who dramatizes mistakes, like the missed three-footer.

BENZODIAZEPINES / example: Valium / This class of anti-anxiety drugs is prescribed to treat phobias, such as fear of crowds or closed spaces. In golf, fear of on-course situations or consequences can be crippling. Imagine a Ryder Cup rookie needing to take the edge off on the first tee.

Would golfers really take these drugs? Consider that many people today use medications to enhance their appearance, performance or lifestyle. For example, Viagra, indicated for erectile dysfunction, is used by 20-somethings to increase sexual prowess. Botox, a drug for neurological disorders, is commonly injected to smooth wrinkles.

Many of the drugs described above are on the LPGA's list of illegal substances, and hopefully will be banned by the PGA Tour. But because of their availability and potential, they pose a special threat. With drugs this common, some people will take them for a medical purpose but also derive a golf-related benefit. If that medical purpose exists, I think their use should be within the rules. Side effects like sedation and mental clouding might preclude their effectiveness for all golfers. Nevertheless, if there's no enforced drug policy, it's hard to believe that players wouldn't experiment with these drugs for nonmedical purposes to try to gain an advantage.