

Anabolic Steroids: The Gremlins of Sport*

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The fact that athletes are now hormonally manipulating themselves in order to enhance their athletic performance has aroused great concern among those who are close to athletics because it is feared that these athletes may be doing irreparable harm to themselves as well as to "sport." As Peter Lawson of the *Manchester Guardian* put it, "Unless something is done soon, international sport will be a competition between circus freaks manipulated by international chemists."¹ Even so, the history of drug use by athletes has received little scholarly attention. Though there are now several popular treatments of the use of anabolic drugs by athletes, most notably Dr. Bob Goldman's *Death in the Locker Room* and Dr. William Taylor's *Hormonal Manipulation*, neither book contains much discussion of the chronology of this phenomenon or, sad to say, much documentation.* What follows is an attempt to provide a chronology and, perhaps, an insight into this baleful aspect of modern sport.

Tam Thompson, a 27 year old graduate student in physical education, has competed in the sport of powerlifting since 1982 and admits having used anabolic steroids to improve her performance. Like many other athletes in an increasingly wide variety of sports, Tam felt that using anabolic steroids (synthetic derivatives of the male hormone, testosterone, which helps in the building of muscle size and strength) would give her a competitive edge. Before using steroids, Tam had never won a national title nor set any official records and she hoped steroids would allow her to catch the top women. In this quest she was ultimately unsuccessful. Two years ago, Tam decided to stop using drugs and the result was a significant drop in her level of strength.

The following interview represents one of the few times a woman athlete has discussed her drug usage for the record.³ Much of what Tam has to say may seem extraordinary to those who are removed from the world of competitive sports, but neither the amounts of drugs she took, her attitude toward those drugs, nor the side effects she experienced are atypical of what many observers

* The author would like to thank Jan Todd for her research assistance and moral support.

1. "Drugs: The Use and Abuse," *Manchester Guardian*, 17 September 1983, p. 18.

2. Bob Goldman, *Death in the Locker Room* (South Bend: Icarus Press, 1984); William N. Taylor, *Hormonal Manipulation: A New Era of Monstrous Athletes* (Jefferson, N.C.: McFarland and Co., 1985).

3. Another woman who openly admits to steroid use is the bodybuilder "Pillow," who began an anti-steroid campaign in 1984. See Jan Todd, "Pillow Talks," *Strength Training for Beauty*, 2 (September, 1985): 65-68.

now see regularly among men and women who use these substances. Tam's interest in, involvement with, and ultimate opposition to anabolic steroids began shortly after her first competition in powerlifting.

I remember after my first powerlifting meet thinking, "I can't believe I finished sixth out of the nine women in my weight class. I know I'm stronger than they are." And so, instead of training harder or going to better techniques, I figured they were taking drugs and I would too. I'd catch up. "And besides," I told myself, "if I decide this is a bad thing, I can simply stop."

The dealer was steering me. He told me, "Stay away from Dianabol and testosterone, they're not good for women." And, of course, that was tantalizing to me. I thought, "What is this? This is chauvinistic. Why can the men take these stronger drugs and not me?"

I started on Anavar and decided it didn't work, so I switched to injections of Equipoise—you know, the new veterinary steroid everyone's using—and decadurabolin. Then I added some Dianabol on top—generally five to six a day, and then, when I was about five weeks out from the U.S. Women's Nationals I started a cycle of testosterone, too. I started off with one half cc a week, then one cc the next week, then to one and one-half, then two cc's, and finally, the week before the meet, I took three cc's I was pretty well tanked.

And then three days before the meet I started taking shots of aqueous testosterone—the real nasty stuff that hurts when it goes in. I mean you put that thing in your hip and it feels like it's dripping all down the back of your hamstring. It makes the hamstrings cramp really bad. I took one cc in the morning and one cc at night for the first two days, then the day before the meet one cc in the morning and two cc's at night and the morning of the meet I took two more cc's, and then three more right before the meet started. And during the meet I took some of those sublingual testosterones—I don't remember how many—and right before the deadlifts I took an injection of adrenalin backstage—about one-half cc, I guess.

How did I feel? Like I was on top of the world. Not high, just a very super feeling. I thought I could do anything

Unwanted side effects? I didn't really notice anything the first cycle. So I figured, "OK, we're safe, this isn't going to do anything to me." And it didn't, not the first time. But the second cycle, my voice started getting lower, and I noticed these strange hairs showing up. I thought, "Well, that's no big deal. A hair here, a hair there. Big deal. I can live with it." Some of it was on my face, some on my chest, and the next cycle it got worse. But by then, I figured the damage had already been done, and I went ahead with the full cycle of steroids because I had a meet coming up. It's hard to explain to people that once you're on the drugs you lose sight of everything but winning. That's one thing they don't understand. I mean, I could look at myself, back then, and I could sort of see what was happening, but I didn't care. I don't feel that way now. I've been off the drugs for almost two years now, but I still have to shave every day.⁴

Tam admits that she was obsessive, even fanatical, in her approach to sport. But so, apparently, are thousands of other athletes in a variety of sports. Consider the comments of Harold Connally, gold medal winner in the hammer throw in the 1956 Olympic Games, "I think that any athlete should take any steps necessary, short of killing himself, to maximize his performance." Or consider a study done by Dr. Gabe Mirkin. He once asked more than 100

4. Taped Interview with powerlifter, Tammy (Tam) Thompson. 15 April 1986. Tape on file at Todd-McLean Sport History Collection, The University of Texas, Austin, Texas.

competitive runners if they would take a “magic pill” that guaranteed them an Olympic gold medal but would also kill them within the year and found, “to my amazement, more than one-half of the athletes responding stated they would take my magic pill.” A comparable study involving lifters found similar results. And sports scientist Gideon Ariel admitted that if he had had to choose during his days as an Olympic discus thrower between an extra five inches in distance or an extra five years of life, he’d have chosen the distance.⁵

The use of ergogenic—performance enhancing—drugs by athletes is certainly not a new phenomenon. What is new, and distressing to many who observe sport, is that these more recent additions to the athletes’ bag of tricks— anabolic steroids—have the power to do more than simply enhance an athlete for a single, isolated athletic event. They can physically alter the athlete, sometimes permanently. Tam’s use of steroids, for instance, left her with noticeable hair on her chest, enough facial hair to produce a beard and mustache, the beginnings of male pattern baldness, clitoral enlargement and a significantly lowered voice. Whether she also suffered internal side-effects is unclear. She did not get her drugs from a doctor and she had no tests made. But she knows, just as the many thousands of other athletes who regularly take steroids know, that liver dysfunction and an increased susceptibility to cancer, cardiovascular disease, prostatic enlargement, and infertility are also all associated with the use of steroids.

Steroids also affect athletes psychologically. Some experts think, in fact, that the greatest benefit to athletes from steroids is not the fact that they allow the body to build more muscle, but that, as central nervous system stimulants, they make the athlete more aggressive about training and competition.⁶ Many athletes would even argue, as Tam does, that the use of these drugs fundamentally changes who they are.

There’s no doubt in my mind that when I took the drugs I was no longer the same person I was before I took them. And I’m not simply talking about the facial hair and the lower voice. My personality completely changed. I trained harder. I wanted to win more. And I got much more aggressive. There was one woman at the nationals last year who looked at me the wrong way, so I invited her out in the hall.⁷

By anyone’s lexicography, powerlifting is a minor sport. Though national and world championships are held, these contests are not part of the Olympic Games and they have recently attracted very little media attention, in part because of the ubiquitous drug use in the sport.⁸ Nor is prize money offered in

5. Connally quoted in Jan Todd, “Former Powerlifter Calls for Steroid Curbs,” *Austin American Statesman*, 13 September 1983, p. 6; Mirkin in “High Risk Gamble to Obtain Winning Edge,” *San Diego Union*, 13 July 1982, sec. C, p. 1; weightlifting study is from Goldman, *Death in the Locker Room*, p. 32; Ariel in Jan Todd, “Former Powerlifter Calls for Steroid Curbs,” p. 6.

6. Terry Todd, “The Steroid Predicament,” *Sports Illustrated* 59 (August 1, 1983): 70-73.

7. Tam Thompson interview.

8. Both women’s and men’s powerlifting attracted a good deal of media attention in the latter part of the 1970s and early part of the 1980s. Both the national and world championships were regularly covered by CBS’ *Sports Spectacular* and NBC’s *Sports World*, and several positive articles in *Sports Illustrated* and other mainstream publications appeared. However, as powerlifting became more closely identified as a sport which abused anabolic

powerlifting; it is strictly an amateur affair and the greatest reward one can achieve is the holding of a world record or being named to a national team. Seen in this light, the risks Tam Thompson took seem astonishing. Yet she is certainly not unique. Nor is she without historical precedent.

The International Olympic Committee defined "doping" in 1967 as the "use of substances or techniques in any form or quantity alien or unnatural to the body with the exclusive aim of obtaining an artificial or unfair increase of performance in competition."⁹ Under this broad definition, even such regularly followed dietary practices as protein powder and vitamin therapy might count as "doping." In reality, though, what the IOC and the sports community consider "doping" or drug abuse is the use of substances and techniques which have to be either *administered* by physicians (such as the case with "blood doping," in which several pints of blood are taken from the athlete months before a competition, stored until the day of the competition, and reinjected into the circulatory system to increase endurance) or drugs which would normally be *prescribed* by physicians—amphetamines, sympathomimetic amines, narcotics and steroids. (There are also other substances—such as alcohol and caffeine—on the IOC list, as well as a number of over-the-counter medications which contain minute amounts of amphetamines or other drugs banned by the IOC.) The IOC's thrust was, in 1967, and is today, twofold. First, these substances and procedures were banned because they posed potential health threats to the athletes. Furthermore, they were banned because their use made competition unfair to the nonuser.¹⁰ By 1967, the IOC already had good reason for concern.

Throughout history, athletes have used a variety of substances in an attempt to get a competitive "edge." The ancient Greeks, for instance, who were idolized for their athletic purity by such *fin de siècle* sports promoters as Pierre de Coubertin, the self-styled founder of the modern Olympic Games, were well paid professionals who also tried a variety of "medical" measures to enhance their performances at Olympia.¹¹ The probable originators of the "high protein diet," for instance, were wrestlers from the classical period who often consumed as much as 10 pounds of lamb a day, and there are reports from the third

steroids—and, in particular, as many of the women who dominated the sport looked more androgynous and in some cases were growling and sprouting facial hair—the sport became harder to sell to the national networks. NBC announcer Mike Adamlie, put this concern in words at the 1981 Women's World Championships, when he told Jan Todd, head of the IPF Women's Committee, that powerlifting simply had to do something to clean up its image. According to Adamlie, his viewers might be interested in watching these women once—as he put it, just as people will pay to see the freaks in the sideshow—but he did not see them becoming interested in the sport or the women on a long-term basis.

9. Mauro DiPasquali, M.D., *Drug Use and Detection in Amateur Sports* (Warkworth, Ontario: M.G.D. Publishing, 1985): 3. "Doping" appeared in the English dictionary about 1889. Its origins are in South Africa where the word "dop" was used in the "Kaffir" dialect to describe a type of hard liquor used as a stimulant in religious ceremonies. The Beers apparently added the "e." By the latter part of the nineteenth century, the term had come to describe a mixture of opium and narcotics used as a stimulant in horse racing. From: David P. Webster. *The Truth About Drugs*, circa 1973, privately published treatise in Todd-McLean Collection, p. 2.

10. Interview with Manfred Donike, head, International Olympic Committee's Drug Testing Committee, 1982. Notes on file at Todd-McLean Collection.

11. David C. Young. *The Olympic Myth of Greek Amateur Athletics* (Chicago: Ares Publishers, Inc., 1984), contains an excellent examination of the role of amateurism in the nineteenth century and its exploitation by Coubertin and others.

century A.D. that Greek athletes used certain types of hallucinogenic mushrooms to mentally prepare themselves.¹² Other reports indicate that Greek long distance runners ate sesame seeds during races in the belief that the seeds would increase endurance.¹³ It is also known that Nordic "Berserkers" thought they could increase their fighting strength 12-fold by eating *amanita muscaria*, a type of psychoactive mushroom.¹⁴

In the nineteenth century, as sports rose in importance, there were many known reports of drug use. The first surfaced in Amsterdam in 1865, when several swimmers in a canal race were charged with "taking dope."¹⁵ And as bicycle races swept into prominence in both Europe and America, experimentation with a variety of stimulants became common. Goldman reports that by 1869 cyclists were known to use "speed balls" of heroin and cocaine to increase endurance. And in 1886, as a result of such practices, a cyclist died, the first known drug related death of an athlete.¹⁶ Thomas Burks has also pointed out that the use of caffeine, alcohol, nitroglycerine, ethyl ether, strychnine and opium was common among athletes in the late nineteenth century.¹⁷

The most famous early case of drug enhancement, however, occurred in the 1904 Olympic Games in St. Louis. The case is well known because at the conclusion of the marathon, the winner, America's Thomas Hicks, collapsed. During the investigation, Hicks' handlers, who had been allowed to accompany him throughout the course of the race in a motor-car, admitted they had given him repeated doses of strychnine and brandy to keep him on his feet. Even so, Hicks' medal was not taken away, and his joy at winning was expressed to reporters in a telling way when he finally revived, "I would rather have won this race than be president of the United States."¹⁸

Most of these early cases deal, of course, with stimulants, not muscle-building drugs such as anabolic steroids; but what these early reports do suggest, and why they are important to understanding the rapid growth of the use by athletes of anabolic steroids in the second half of the twentieth century, is that even in the so-called golden age of amateur sport, ethical considerations were often overridden by the desire for attainment. Pierre de Coubertin was just one of many in the nineteenth century to argue that sport should consist of contests between gentlemen and be untainted by any hint of "professionalism,"¹⁹ but what Coubertin and other sporting officials failed to fully understand was that money was not the only "dangerous" incentive for athletes. For some for most athletes, in fact-the recognition and feelings of personal satisfaction

12. Thomas F. Burk, "Drug Use in Athletics," Symposium presented by the American Society for Pharmacology and Experimental Therapeutics at the 64th Annual Meeting of the Federation of American Societies for Experimental Biology, Anaheim, California, April 15, 1980, Published in *Federation Proceedings*, 40 (October 1981), 2680.

13. "For Athletes, Drug Test is an Easy Opponent," *Los Angeles Times*. 19 January 1984, sec. 3, p. 14.

14. *Ibid.*

15. Webster, *The Truth*, p. 2.

16. Goldman, *Death*, p. 26.

17. Burke, "Drug Use in Athletics," 2680.

18. David Wallechinsky. *The Complete Book of the Olympics* (New York: Penguin Books, 1984), pp. 44-45.

19. Richard D. Mandell, "Stakes too High for Olympians to Remain Amateurs," *New York Times*, 12 February 1984.

they received from winning an event were sufficient in themselves to drive these athletes to extraordinary, often perilous, means. And as the twentieth century progressed, the old adage that, "It matters not whether you win or lose, but how you play the game," was less and less germane to what actually occurred on the playing fields. The attitude that now prevails is well summed up by Lou Simmons, a powerlifter and coach who opposes any controls on drug use in sport: "The psychology of a champion lifter is to reach the top *no matter what* . . . if he doesn't take full advantage of everything at his (or her) grasp, it is his own fault."²⁰

In any case, the record seems clear that had steroids, or testosterone, been available in the late nineteenth century, athletes and others would have used them. It was not until 1927, however, that Fred Koch, an organic chemist at the University of Chicago, and his graduate assistant, Lemuel Clyde McGee, were finally able to isolate a highly impure but nonetheless potent form of testosterone. Koch and McGee extracted the hormone by pulverizing several tons of bull testicles and then treating what was left with benzene and acetone to obtain their essence, an essence that had nearly miraculous properties. Capons, for instance, demonstrated masculine characteristics when administered the drug and later studies on hens and female calves confirmed the capacity of the extract to produce aggressive behavior.²¹ But the expense and difficulty of the extraction process prohibited any widespread use of the substance and this precluded serious interest by the medical community. By 1935, however, several European physicians were also studying the hormone, and one of them, Yugoslavian chemist Leopold Ruzicka, came up with a process to alter the molecular structure of cholesterol and thus produce synthetic testosterone.²²

According to science writer Paul de Kruif, there was a great interest in the new hormone throughout the remainder of the thirties since many people saw it as a potential fountain of youth. In *The Male Hormone*, (1945), de Kruif describes many studies which used human subjects. He reports that scientists found that this new synthetic testosterone "did more than give [the subjects] more energy and a gain in weight . . . It changed them, and fundamentally . . . after many months on testosterone, their chest and shoulder muscles grew much

20. Louis J. Simmons to Pat Malone, 17 January 1981, personal letter. Simmons' letter was prompted by a drug use survey conducted by Mr. Malone among women powerlifters. Letter on file at Todd-McLean Collection. Simmons was subsequently arrested for selling steroids illegally.

21. Paul de Kruif, *The Male Hormone* (Garden City, New York: Garden City Publishing Inc., 1945), pp. 67-70. For specific studies in this area see: L. C. McGee, "The Effect of the Injection of a Lipoid Fraction of Bull Testicle in Capons," *Proc. Inst. Med.*, 6 (1927): 242; T. F. Gallagher and F. C. Koch, "The Testicular Hormone," *Journal of Biological Chemistry*, 84 (1929): 495; F. C. Koch, "The Biochemistry and Physiological Significance of the Male Sex Hormones," *Journal of Urology*, 35 (1936): 382; F. C. Koch "Recent Advances in the Field of Androgens," *Cold Spring Harbor Symposia on Quantitative Biology*, 5 (1937): 34; Allan T. Kenyon, et al., "The Effect of Testosterone Propionate on Nitrogen, Electrolyte, Water and Energy Metabolism in Eunuchoidism," *Endocrinology*, 23 (1938): 135; C. R. Moore, "Gonadotropic Substances and Male Hormone Effects in the Organism," *Journal of Urology*, 42 (1939): 1251; J. Eidelsbeg, M. Bruger and M. Lipkin, "Some Metabolic Effects of Testosterone Implants," *Journal of Clinical Endocrinology*, 2 (1942): 329; W. M. Kearns, "Testosterone Pellet Implantation in the Gelding," *Journal of the American Veterinary Medicine Association*, 100 (1942): 197; See also: de Kruif, *The Male Hormone*, pp. 229-231.

22. L. Ruzicka, A. Wettstein and H. Kaegi, "Sexualhormone VIII Darstellung von Testosterone unter Anwendung gemischter Ester," *Helv. Chim., Acta.*, 18 (1935): 1478. See also De Kruif, *The Male Hormone*, pp. 79.

heavier and stronger . . . in some mysterious manner, testosterone caused the human body to synthesize protein, it caused the human body to be able to build the very stuff of its own life."²³

Much of the research involving testosterone and human subjects was done in Germany, before World War II. Heinz Arandt recorded 17 case studies of testosterone use, all of which showed positive results.²⁴ There is also evidence that the Germans continued their experimentation during the war, and even administered testosterone to some storm troopers to increase their aggressiveness. Dr. William Taylor has speculated that since Hitler had used the drug, it might have accounted for some of the mood swings and aggressiveness of the German fuhrer.²⁵

In any case, *The Male Hormone* is full of praise for testosterone, since de Kruif saw in this new hormone a way to extend man's sexual life and increase his productivity. De Kruif himself experimented with the drug and argued that its use was no different than injections of insulin for diabetics, "I'm not ashamed that it's no longer made to its old degree by my own, aging body," he wrote. "It's chemical crutches. It's borrowed manhood. It's borrowed time. But just the same," he added, "it's what makes bulls bulls."²⁶ And in an observation made chilling by the passage of time, de Kruif speculates on the possible effects of testosterone on athletes.

We know how both the St. Louis Cardinals and the St. Louis Browns have won championships supercharged by vitamins. It would be interesting to watch the productive power of [a] . . . professional group [of athletes] that would try a systematic supercharge with testosterone . . .²⁷

De Kruif would not have long to wait. At the 1952 Olympic Games in Helsinki, the Soviet Union did exceptionally well in the weightlifting competition, despite having been ravaged by World War II, garnering seven medals—three gold, three silver and one bronze. And in what may well have been the first public charge regarding the Soviets and drugs, the U.S. Olympic weightlifting coach, Bob Hoffman, told the Associated Press, "I know they're taking the hormone stuff to increase their strength."²⁸

As it turned out, Hoffman was right, and he soon had the proof. At the 1954 World Weightlifting Championships in Vienna, Hoffman was the U.S. team coach and the team physician was Dr. John Ziegler. Ziegler carefully observed the Soviet team and suspected they were using testosterone, a suspicion that was

23. de Kruif, *The Male Hormone*, pp. 125-130; 152-156.

24. H. Amdt, "Zur "Therapie extragenitaler Störungen mit Sexualhormonen, *Wien. Med. Wchnschr*, 89 (1939): 222.

25. William Taylor, M.D., "The Case Against the Administration of GHG to Normal Children," presented at a symposium on *Ethical Issues in the Treatment of Children and Athletes with Human Growth Hormone*, University of Texas at Austin, 26 April 1986. Taylor's information on Hitler came from: "Hitler's Final Days," *American Medical News*, 11 October 1985, pp. 1,58-69. His source for the information on the storm troopers was Fred Silverman, M.D., "Guaranteed Aggression: The Secret Use of Testosterone by Nazi Troops," *Journal of the American Medical Association*, (May, 1984): 129-131.

26. de Kruif, *The Male Hormone*, p. 226.

27. *Ibid.*

28. "Easy Opponent," *L.A. Times*, p. 14.

later corroborated at a tavern by one of the Russian team physicians. Armed with this knowledge, Ziegler returned to the United States, acquired some testosterone and tested it on himself, on Bob Hoffman, and on several east coast weightlifters, including Jim Park and Yaz Kuzahara.²⁹ Concerned about the side-effects of testosterone, including prostatic problems and libido increase, Ziegler wanted a drug which would have the “anabolic” or muscle building effects of testosterone without the “androgenic” effects (heightened aggression, hirsutism, increased libido, etc.). Then, in 1958, the Ciba pharmaceutical company released Dianabol (methandrostenalone), the first U.S. “anabolic steroid.” The drug was not intended for use by athletes, of course, but was developed for burn patients and certain post-operative and geriatric cases.

Dr. Ziegler, however, had another agenda and what he did with Dianabol was critical in the spread of anabolic drugs in sport. With Hoffman’s blessing, he convinced three members of Hoffman’s York Barbell Club team to begin using Dianabol. In addition, Ziegler persuaded them to begin using-in secret-a new, little-known training program called “isometric contraction,” which involves pulling or pushing against immovable resistance. Almost immediately, the three lifters began making unprecedented progress in strength and muscle size, and other lifters clamored to know why and how this progress had been effected. Then, as the lifters approached the world record level, Hoffman published a hyperbolic article in his widely read magazine, *Strength and Health*, entitled, “The Most Important Article I Ever Wrote.”³⁰ And in a way it was, as it outlined the new training routine the three lifters were using but failed to mention the little pink pills. But the article only led to further speculation concerning the reason for the continued success of the three lifters, since the use of isometric contraction by his readers generally failed to produce significant improvement. Soon, however, the secret began to leak and it became known that the reason for the meteoric rise of the three York lifters, by now all national champions, was their use of Dianabol.³¹

And so, in a number of predictable ways, the news of steroids spread. The combination of a radically different exercise routine, an evangelical physician, an aggressive promoter with access to a national fitness magazine and the startling progress being made by a few elite lifters, produced a climate of rising expectations in which strength athletes began a big arms race, fueled by an ever expanding array of pharmaceuticals. This is not to say that any one of these four components was individually responsible for the increased use of drugs in sport-only that these components happened to exist at the same time and to interact in such a way as to produce the critical mass necessary for the strength-building drug scene to explode. Ziegler and Hoffman are now dead, the pace-setting lifters have all long since retired, and isometric contraction has acquired

29. Terry Todd, “The Steroid Predicament,” *Sports Illustrated*, 59 (1 August 1983): 61-69; Interviews with Dr. John B. Ziegler, Jim Park and Yaz Kuzahara. April 1983. Notes on file in Todd-McLean Collection.

30. Bob Hoffman, “The Most Important Article I Ever Wrote,” *Strength and Health*, 29 (November 1961): 30-34.

31. Terry Todd, “The History of Resistance Exercise and Its Role in United States Education,” (Ph.D. dissertation, University of Texas at Austin, 1966). pp. 109—113.

a patina similar to that of the bunny-hop and the Hula-Hoop, yet the many and various ergogenic kin of Dianabol continue to thrive.³²

Evidence of this spread comes from the hammer thrower Harold Connally, who testified in 1973, at the U.S. Senate sub-committee hearings on drugs and athletics, that he had become “hooked” on steroids in 1964.³³ By the Mexico City Games, in 1968, things had advanced to the point that Dr. Tom Waddell, who placed sixth in the decathlon that year, told the *New York Times* that he estimated a full third of the U.S. track and field team—not just the field event specialists—had used steroids at the pre-Olympic training camp held at Lake Tahoe.³⁴ This did not, of course, occur in a social and cultural vacuum.

The 1960s were a period of innovation and experimentation in nearly every aspect of American life. As a people we became fascinated with change and technology; science and progress received a special reverence in our lives yet, at the same time, millions of young Americans turned to mood-altering drugs such as LSD and marijuana because they felt increasingly alienated from and dehumanized by our technological society. It now seems clear that it was the combination of these seemingly contradictory phenomena that helped further the drug revolution in athletics. The first phenomenon instilled in athletes who grew up in the sixties the belief that science could make their lives—their athletic quests—easier; the second phenomenon created a significant sub-culture within our society in which the use of illegal substances was not only permissible, but a hip badge of honor. As Ken Kesey said, you were either on the bus or off the bus.³⁵ Furthermore, as James Wright pointed out in *Anabolic Steroids and Sports*, by the Sixties the average American home contained more than 30 different drugs, vitamins and nostrums.³⁶

Even so, most athletes in the Sixties and early Seventies were secretive about their use of anabolic steroids. But in 1971, American superheavyweight weight-lifting champion Ken Patera shattered the code of silence when he told reporters that he was anxious to meet the famous Russian super-heavy, Vasily Alexeev, in the 1972 Olympic Games. The previous year, at the World Championships, Alexeev had barely beaten Patera, but Patera now felt they were on a more equal footing:

Last year, the only difference between me and him was that I couldn't afford his pharmacy bill. Now I can. When I hit Munich next year, I'll weigh in about 340, maybe 350. Then we'll see which are better—his steroids or mine.³⁷

Patera's comments sent shock waves throughout the sporting media, although he maintained in a recent interview that he “didn't hear a peep out of anyone from the U.S. Olympic Committee.”³⁸

32. Todd, “Predicament.” *Sports Illustrated*: 66.

33. “Easy Opponent.” *L.A. Times*. p. 15.

34. Tom Wolfe, *The Electric Kool-Aid Acid Test* (New York: Farrar-Strauss-Gloux, 1968), p. 29.

35. H. Wayne Morgan, *Drugs in America* (Syracuse: Syracuse University Press, 1981), pp. 154-156.

36. James E. Wright, *Anabolic Steroids and Sports*, (Natick Massachusetts Sports Science Consultants, 1982), II:119.

37. “Easy Opponent,” *L.A. Times*, p. 15.

38. Telephone Interview with Ken Patera, 16 May 1986.

In the 1960s most of the attention on the question of drugs in athletics focused on the use of "hard drugs" such as amphetamines and heroin. A series of drug-related incidents had kept those particular drugs in the forefront of the public's consciousness as the Rome Olympics was marred by the death of Danish cyclist Knut Jensen, who had taken a "blood circulation stimulant."³⁹ There were other problems throughout the decade. Boxer Billy Bello died in 1963 of a heroin overdose while Britain's Tommy Simpson died in an amphetamine-related death in the 1967 *Tour de France*. Also in 1967, Dick Howard, a bronze medal winner at the Rome Olympics, died from an overdose of heroin. And then, in 1968, another cyclist, Yves Mottin, succumbed to amphetamine complications.⁴⁰

Because of such problems, the IOC established a medical commission in 1967 and banned certain drugs. At the 1968 Games, however, drug testing was done only for research purposes and even then the "research" did not include anabolic steroids, since they were not yet on the IOC's banned substances list. The only meaningful testing done in the 1968 Games was, in fact, a chromosome check to determine whether all the female competitors were biologically women. The chromosome check was prompted in part by the fact that many female athletes had begun training with weights and thus projecting a more "masculine" image, an image which caused some officials to suspect that some of the competitors were not, in fact, women. And so in 1967, at the European Cup, the chromosome test or "sex test" was used for the first time, and one athlete, the Polish sprinter Eva Klubokowska, failed the screening.⁴¹ And then, at the 1968 Olympics, the famous Russian sisters, Tamara and Irina Press, were noticeably absent. Olympian Pat Connally reflected on this in 1981:

The current situation [regarding steroids] in women's athletics is very disturbing. When I competed against the Press sisters from the Soviet Union, there were problems with sex tests and talk of men disguised as women. Now there are problems with steroids and we're back to the question of who's really a woman.⁴²

Gender disputes aside, however, there were several reasons why the IOC failed to include anabolic steroids and testosterone among the banned substances at their 1967 meeting. The first was that throughout most of the sixties the use of anabolic steroids was still little known to most sports officials. The second, and perhaps more telling reason, was that there was then no way to test for the presence of such drugs. The IOC was also influenced by prevailing medical opinion, which maintained that these hormonal substances provided no athletic advantage. This opinion now seems astonishing, especially in light of the already-widespread anecdotal evidence of the potency of anabolic steroids. In fairness, however, it should be added that little research attention had been given to the question of the use of the substances by athletes, since the drugs were not developed for athletes. The research that was done, such as a fre-

39. Wallechinsky. *Olympics*, p. 207.

40. *Ibid.*, p. 57 and Goldman, *Death*, pp. 27—28.

41. "The Female Athlete and Her Problems," *San Francisco Chronicle*, 6 January 1981, p. 7.

42. *Ibid.*

quently cited UCLA study, found “that steroid administration in normal therapeutic doses is unlikely to increase muscle size or strength in healthy young men . . .”⁴³ And even though subsequent research sometimes found otherwise and thus supported the overwhelming endorsements of the athletes, it was not until the early 1980s that the opinion of the medical community began to significantly change. A thorough discussion of the medical community’s unwillingness to recognize the potential benefits of these drugs to athletes is beyond the scope of this study, but the feeling persists among athletes that one reason the medical community was so unwilling to admit the gains steroids could produce was that physicians hoped this non-admission would cause athletes to avoid such potentially harmful substances. This suspected strategy backfired, however, as it only caused athletes to distrust doctors and to turn, instead, to the black market for drugs and information.⁴⁴

Fed by the powerful sports grapevine, the use of steroids burgeoned as more and more athletes began to train with weights and thus come into range of the siren song sung by competitive lifters and bodybuilders. So rapidly did the usage of anabolic steroids increase that in 1969, they moved squarely into the mainstream of America’s sporting consciousness when *Sports Illustrated* writer Bil Gilbert published a three part expose entitled “Drugs in Sport.” Gilbert charged that there were “some players on almost every NFL and AFL team that have taken the drugs.” He quoted Ken Ferguson of Utah State, who went on to play pro football in Canada, as saying, “. . . anybody who has graduated from college to professional football in the last four years has used them.”⁴⁵ Gilbert also pointed out that although rumors of both male and female use abounded, nothing was being done to stop the spread of such drugs. He correctly argued that the delaying of the decision to ban the drugs from sport was helping to promote their usage. As Dave Maggard, a high school coach and a former Olympic competitor said, “I’d like to see the NCAA, the AAU and the U.S. Olympic Committee . . . go ahead and put us straight-tell us to either use the drugs, or don’t It’s this halfway stuff, the rumors, the idea that maybe you *have* to use them to be competitive that has made it such a mess.”⁴⁶

But still the use increased. At the 1972 Olympic Games in Munich, for instance, Jay Sylvester, then a member of the U.S. track and field team and now a faculty member at Brigham Young University, unofficially polled all the track and field contestants in Munich. He found that 68% had used some form of anabolic steroid in their preparation for the Games.⁴⁷

In order for the drugs to be effectively banned, however, a viable test had to be found. Finally, in 1973, two reports in the *British Journal of Sports Medicine* suggested solutions to the problem of steroid testing. The first described a detection procedure utilizing radioimmunoassay, while the second advocated

43. Wright, *Anabolic*, p. 36.

44. William Taylor, M.D., “The Case Against the Administration of HGH to Normal Children.”

45. Bil Gilbert. “Drugs in Sport: Problems in a Turned-On World.” *Sports Illustrated*. (23 June 1969): 71.

46. Bil Gilbert, “Drugs in Sport: Something Extra On the Ball,” *Sports Illustrated*. (30 June, 1969): 42.

47. Wright, *Anabolic*, p. 33.

the use of gas chromatography and mass spectrometry.⁴⁸ The IOC decided to adopt both procedures in order to guarantee absolute accuracy. The only drawback to the new testing—a significant one—was that few laboratories in the world possessed all the equipment and computer data to do IOC level testing. Even now, in 1987, there are only eight labs throughout the world with IOC approval. This shortage has made testing both expensive and administratively cumbersome.⁴⁹

The new testing procedure was first used on a trial run basis at the Commonwealth Games in Auckland, New Zealand, in February 1974. No sanctions were imposed and the participating athletes were not identified, but nine of the 55 samples tested contained steroids. But in 1975, at the European Cup (track and field), sanctions were included and two athletes tested positive for steroids and were disqualified from the competition and subsequently suspended by the international federation.⁵⁰ The first Olympic use of the new test came in 1976 at the Montreal Games, and only eight athletes out of 275 tested were found positive for anabolic steroids—seven weightlifters and one woman discus thrower.⁵¹

It would be easy to assume from such a low percentage of steroid positives that the athletes had simply decided to come “clean” to the European Cup and the Games. Sadly, this was not the case. Despite the IOC’s best intentions, they had left a way to get around the test because there were still some substances that enhanced athletic performance but for which the IOC had not developed a test. Ironically, the drug to which the athletes turned at the 1976 Games was the male hormone, itself—testosterone—with all its potent side effects; it was the drug Dr. John Ziegler had abandoned in 1958 in favor of Dianabol. The most striking of those side effects are extreme aggressiveness and mood swings. Although such side effects appear to be to some extent both individually variable and dose dependent, they can have devastating personal consequences, as the following set of separate, paired interviews makes clear. The man interviewed was a former All-Pro lineman in the NFL.

Wife: He’s so impatient when he’s on steroids, so easily annoyed. He becomes vocal and hostile real fast and he was never that way before.

Husband: It definitely makes a person mean and aggressive. And I was always so easygoing. On the field I’ve tried to hurt people in ways I never did before.

Wife: His sexual habits really changed. On the testosterone he not only wanted to have sex more often, he was also much rougher. And his sleep patterns were completely different on the testosterone. The Dianabol changed him some, but on the testosterone he was always ready to start the day by five-thirty or six, no matter

48. Allan J. Ryan, M.D., “Anabolic Steroids are Fool’s Gold,” Symposium presented by the American Society for Pharmacology and Experimental Therapeutics at the 64th Annual Meeting of the Federation of American Societies for Experimental Biology, Anaheim, California, 15 April 1980. Published in *Federation Proceedings*, 40 (October 1981): 2685.

49. Personal communication from Dr. Manfred Donike, head of the IOC drug testing committee. April 1986.

50. Ryan, “Anabolic Steroids are Fool’s Gold,” pp. 2685-2686.

51. Jerry Kirshenbaum, “Steroids: The Growing Menace,” *Sports Illustrated*, 51 (12 November 1979): 33. Two of the weightlifters were Americans, Mark Cameron and Phil Grippaldi.

how late he'd turned in. In the old days he'd sleep till noon.

Husband: One of the bad things about the testosterone is that you never get much sleep. It just drives you so. With amphetamines the effects wear off after a game, but with the testosterone it's almost as if you're on speed all the time.

Wife: I don't think he'll ever be able to give it up. It cost him a wife who loved him and the chance to watch his two children grow up. There've been times when I felt he was almost suicidal. Sometimes, late at night, he'd tell me that he just couldn't help himself and that he couldn't stop using it because of the football, and then he'd cry.

Husband: A lot of guys can't handle it. I'm not sure I can. I remember a while back five of the guys on our team went on the juice at the same time. A year later four of them were divorced and one was separated. I've lost a lot of hair from using it, but I have to admit it's great for football. People in the game know that 50 percent of football is mental, and that's why the testosterone helps you so much. I lost my family, but I think I'm a better player now. Isn't that a hell of a trade-off.⁵²

As for the original motivation amateur athletes had to use testosterone, further insight was provided in a 1982 interview with Professor Manfred Donike, head of the IOC-approved drug testing laboratory in Cologne, West Germany.

The increase in testosterone use is a direct consequence of the doping control for anabolic steroids. In former times, athletes . . . have to stop the use of the anabolic steroids at least three weeks before the event. So they have to substitute. And the agent of choice is testosterone—testosterone injections.⁵³

Donike, perhaps more than any other member of the IOC medical committee, was concerned about testosterone and its effect on sport. And so, as had been done earlier for anabolic steroids, Donike found a way to determine whether an athlete was using “exogenous” testosterone-testosterone from outside the body. It is important to note that the screening procedure for testosterone involves the use of a ratio of 6: 1. In other words, for either a man or a woman to test positive for testosterone, he or she must possess, at the time of the testing, six times more testosterone than is considered “normal” for their respective sex. The 6: 1 ratio was arbitrary, though one of the reasons given for its adoption was that it removed any possibility of a false positive. A negative aspect of the 6:1 ratio is that it leaves considerable room for cheating. In any case, after the US-boycotted 1980 Olympics in Moscow, Donike performed unofficial testosterone screens on the urine samples which had been collected and although not one positive test had turned up for anabolic steroids in the Games he found that 20% of *all* the athletes—male and female—would have failed the 6:1 testosterone screen. This 20% included 16 gold medalists.⁵⁴ Armed with this evidence, Donike was able to convince the IOC in 1982 to add testosterone to its list of banned substances.

52. Todd, “Predicament,” *Sports Illustrated*: 71.

53. Transcript of interview with Dr. Manfred Donike, 6 February 1982, for *Sports Illustrated* Television. Ronox Productions, #06. On file at Todd-McLean Collection.

54. “Easy Opponent.” *L.A. Times*, p. 15.

The first official use of Donike's testosterone screen did not come about until the 1983 Pan American Games in Caracas, Venezuela. There, 15 male athletes were found to be drug positive. Included in that 15 were 11 weightlifters (some of whom were using testosterone), one cyclist, one fencer, one sprinter and one shotputter. While those figures are high, what raised the media's and the public's concern to even greater levels was the fact that 12 members of the U.S. track and field team simply packed their bags and flew home after the weightlifting positives were announced. It was apparent by this time that the testing procedures Donike implemented in Caracas were more sophisticated than any ever administered to athletes. Not only could he test for testosterone, but he could detect further back in time the presence of anabolic substances. Several of the U.S. athletes, in fact, openly complained that they were being set up by the IOC as guinea pigs for the new procedures. Adding to the controversy as the Games continued was the fact that a large number of other athletes either withdrew with sudden "muscle pulls and injuries" or performed well below their previous bests in order to finish low and thus avoid being tested.⁵⁵

The resulting furor further elevated the question of drugs and athletics. But Caracas was simply the largest in a series of major steroid scandals following Montreal. In 1979, for instance, the International Amateur Athletic Federation banned seven women track athletes: three Romanians, two Bulgarians and two Soviets; and as a report in *Sports Illustrated* said, "Now even athletes with slight builds, such as middle-distance runners, believe steroids provide explosive power . . ." ⁵⁶ Though the women were supposed to be "banned for life," subsequent appeals allowed several of them to be back in action by the time of the Moscow Olympics. The earlier (1977) banning and early reinstatement of East German shot putter Ilona Slupianek had aroused similar controversy, and this controversy intensified in 1980, when, after Slupianek won a gold medal in the Moscow Olympics, she was elected by a panel of international track and field experts as sportswoman of the year.⁵⁷

Even with all these precedents, when the Pan American Games fiasco erupted, many U.S. journalists and commentators seemed shocked, and they focused on the fact that 12 members of the American team thought it best to leave Caracas without competing and being tested. Journalists also speculated about why the USOC had done virtually nothing up to that time to control the use of these substances. Furthermore, as the media's analysis continued over the next several weeks, Americans discovered that steroids and testosterone were not used only by Olympic athletes and weightlifters but by athletes in nearly every branch of professional sport. And as the journalists probed more deeply into America's sporting world, they found that the USOC was not the only group of sports administrators who had chosen the "see no evil, hear no evil, speak no evil" approach to the problem. The NCAA was doing nothing about it

55. Craig Neff, "Caracas: A Scandal and a Warning," *Sports Illustrated*, 59 (5 September 1983): 18-19.

56. Kirshenbaum, "Menace," p. 33.

57. "Easy Opponent." *L.A. Times*. p. 15.

either-nor were the NFL, the NBA, pro baseball, pro hockey, or even professional bodybuilding, a sport nearly synonymous with steroid use. And the journalists wondered why this was so. Why, they asked, had many European countries adopted rigorous testing programs while in America nothing was being done.⁵⁸

Finally, after repeated questions from the press regarding drug testing, F. Donn Miller, then head of the USOC, announced that there would be testing at all the upcoming 1984 Olympic Trials in various sports. According to a later report from Miller, however-issued *after* the Games-86 of the tests performed during the pre-Olympic season in 1984 were positive. No sanctions were levied against any of the athletes, with the exception of two track athletes who were removed from the official US team. This after-the-fact disclosure was apparently motivated at least in part by a desire on the part of the USOC not to lose face *before* the Los Angeles Games.⁵⁹ Even so, the penalty-free testing and the threat of real testing at the Games led many of the athletes, in their never ending game of cat and mouse with the drug testers, to another way to beat the test-human Growth Hormone [hGH], a hormone manufactured by the pituitary.⁶⁰

hGH apparently made its debut in athletic circles around 1970 when an intrepid bodybuilder began experimenting with it. As this bodybuilder was unable to get *human* Growth Hormone, he used GH from rhesus monkeys, which he hoped would also work on him, since it came from a fellow primate.⁶¹ The primary reasons hGH was not used earlier by athletes seem to be that athletes either did not know about it or couldn't get their hands on it. Until very recently hGH was produced only by extraction from the pituitaries of cadavers, and what was produced was limited in supply and very expensive. Now, however, a synthetic version of hGH is on the market and many people fear it may have an impact on the future of athletics as no test now exists which can effectively discover its use.

Even though it is undetectable, however, it is doubtful that Growth Hormone would have achieved its recent popularity had it not been for Dr. Robert Kerr, a physician from San Gabriel, California, one of the few physicians to openly admit prescribing anabolic steroids and other drugs for athletes. In his book, *The Practical Use of Anabolic Steroids with Athletes*, Kerr equates this drug use to cosmetic surgery such as breast implants. He writes,

It really doesn't matter, the important factor is that they [the athletes] are going to take them anyway. If they are taking them anyway, then at least I can play a role in

58. Todd, "Predicament," *Spats Illustrated*: 73-77.

59. "U.S. Olympic Group to Weigh Drug Test Plan; 86 American Athletes Failed 1984 Screening." *Chronicle of Higher Education* (23 January 1985): 3.

60. Children's pituitaries produce large amounts of this hormone to stimulate growth in height. At maturation, the production of hGH diminishes and vertical growth stops. Gigantism is caused by an overabundant supply of Growth Hormone during adolescence, while the condition known as acromegaly, which can cause horrific distortion of the face, feet and hands, is primarily produced by an over-supply during adulthood.

61. Telephone interview with bodybuilder Peter Grymkowski, 9 May 1986.

guiding them in the right direction . . . If I should stop performing this work right now, who would my few thousand . patients go to for help, understanding and guidance?⁶²

But Kerr was not the drug's only publicist. The authors of *The Underground Steroid Handbook*, in fact, wrote in a special issue on growth hormone:

Just why is it a desired drug? Not only does it make muscle cells grow bigger, but it makes the body grow more muscle cells. Tendons and ligaments get thicker, as do bones. Also, GH mobilizes stored fat, and if your body has plateaued on steroids, it can still respond to Growth Hormone. And, lastly, it is not detectable in drug tests used in international Olympic and powerlifting competitions.⁶³

In the first edition of the Handbook, the authors had concluded that hGH was the only drug that could "overcome bad genetics . . . We LOVE the stuff."⁶⁴

Such articles and interviews helped to create the attitude that pervades many of the books and pamphlets about steroids and hGH that are usually for sale at most bodybuilding and lifting contests. Essentially recipe books for drug users, these books explain how and when to use steroids, and what the latest wisdom is on beating the drug tests. At a recent powerlifting meet in Austin, Texas, for instance, a neophyte on the drug issue could have purchased, in addition to the above-mentioned publications, Fred Hatfield's *Anabolic Steroids: What Kind and How Many*; Boyer Coe's *Steroids: An Adjunctive Aid to Training*; Dan Duchaine's *Ultimate Muscle Mass*; Stan Morey's *Steroids: A Comprehensive and Factual Report*, or three publications put out by "L & S Research": *Human Growth Hormone: Bodybuilding's Perfect Drug*; *Anabolic Steroids and Bodybuilding*, and *In Quest of Size: Anabolics and Other Ergogenic Aids*.⁶⁵

62. Robert Kerr, M.D., *The Practical Use of Anabolic Steroids with Athletes*. (San Gabriel, California: Robert Kerr Publishing, 1982) p. 2. Dr. Kerr is presently being sued by three ex-patients who believe that their steroid use contributed to and/or caused their afflictions. The three are: William Lumus, a recreational weight trainer who developed a carcinoma of the liver which required the removal of nearly 70% of that organ; Glenn Maur, a 35 year old former Mr. California who recently underwent quintuple bypass surgery and Dean Moore, a 19 year old record-holding Olympic weightlifter who suffered a stroke which left him both physically and mentally impaired. Documentation on these cases is available at the Todd-McLean Collection.

63. *The Underground Steroid Handbook. Update #1* (Venice Beach, California: OEM Publishing, 1982), p. I.

64. *The Underground Steroid Handbook for Men and Women*, (Venice Beach, California: OEM Publishing, n.d.), p. 7. The full citation in *USH* is worthy of note:

"Wow, is this great stuff! It is the basic drug for permanent muscle gains. It is the best pituitary hormone that makes your whole body grow. People who use it can expect to gain 30 to 40 pounds of muscle in ten weeks if they can eat around 10,000 calories per day. It is about \$600—\$800 per 4 vials, and we think this to be another best buy. It has been very hard to get in the past as it was made from the pituitaries of rhesus monkeys and is illegal for general sale in the USA. It is now being made from 'smart' E-coli bacteria at Baylor Medical School in Texas. Usual dosage has been two units every three days. This is the only drug that can remedy bad genetics as it will make anybody grow. A few side effects can occur, however. It may elongate your chin, feet and hands, but this is arrested with cessation of the drug. Diabetes in teenagers is possible with it. It can also thicken your ribcage and wrists. Massive increases in weight over such a short period of time can, of course, give you heart problems. We have heard of a powerlifter getting a heart attack while on GH. GH use is the biggest gamble that an athlete can take, as the side effects are irreversible. Even with all that, we LOVE the stuff."

65. Frederick C. Hatfield, *Anabolic Steroids: What Kind and How Many* (Madison, Wisconsin: Fitness System, 1982); Boyer Coe and Stanley Morey, *Steroids: An Adjunctive Aid to Training* (Baton Rouge Louisiana: Boyer Coe Pub., 1979); Dan Duchaine, ed., *Ultimate Muscle Mass*, (Venice Beach California: OEM Publishing, n.d.); Stanley W. Morey, and Ken Passariello, *Steroids: A Comprehensive and Factual Report* (By the authors, 1982); Scott Chinery, *Human Growth Hormone: Bodybuilding's Perfect Drug* (Toms River, New Jersey: L & S Research, 1983); Idem, *Anabolic Steroids and Bodybuilding* (Toms River. New Jersey: L & S Research, 1983; Idem, *In Quest of Size: Anabolics and Other Ergogenic Aids* (Toms River, New Jersey: L & S Research, n.d.).

Besides telling the secrets of “proper” steroid use, some of these books contain another message; they argue for what Fred Hatfield has called a “new ethic.”

Many who hold to this [new] ethic recognize that science is ever advancing in technology and knowledge . . . New ethic athletes are pioneers . . . implicit in their philosophy is the notion that no amount of legislation has ever been able to halt the progress of science. As pioneers, these athletes carefully weigh the risk-to-benefit ratio and proceed with caution and with open minds. Can there be much wrong with getting bigger and/or stronger?

And, in a further discussion of his “new ethic,” Hatfield states, “. . . [drug use is unethical] by your moral code, but not by OURS!”⁶⁶

Nor is Hatfield alone. In an anonymous interview in a leading bodybuilding magazine, one of the largest steroid dealers in the country explained his reasons for selling steroids:

Steroids are needed by people who wish to set themselves apart from the rest of our weakling society . . . Steroid users aren't suicidal; they're adventurers who think for themselves and who want to accomplish something noble before they are buried and become worm food.⁶⁷

As can be imagined, such attitudes bode well for the continuation of a flourishing trade in black market steroids. No one really knows, of course, how large the black market is, but well-informed insiders know it is very large indeed.

An Ohio drug dealer who was arrested by FDA officials in 1985 consented to talk about the extent of the drug network in the United States. A former world champion with a good job, he began dealing steroids on the side during the late seventies. At first, it was simply a way for him to cover the expense of his own drug use; he saw himself as helping his fellow lifters. His insights into the extent of the drug traffic in athletics are important in understanding the size of the industry.

I can't be sure, of course, but I think there may be as many as 10 dealers in the U.S. who grossed at least \$1,000,000 last year, and they'll net at least half of that. And some do more.

The way it works with the domestic stuff is that the big dealers either get it from drug manufacturing companies, from drug wholesale houses, from pharmacists, or from other big dealers and then sell it either to users or to local distributors. Most of the main dealers have two or three hungry pharmacists in their pocket. You've got to realize that pharmacists can make more by spending a few hours a month ordering steroids for a big dealer than they can all the rest of the month running a drug store. Figure it out. They can get Dianabol, for instance, for around \$7 a bottle, and it will sell on the street for \$20 or \$30 or even as much as \$40 and \$50 on the West Coast. I can get it for \$11 a bottle, so you can see there's a lot of money made as it changes hands. I believe there must be at least 200 pharmacists in the U.S. dealing steroids on the black market.

Another way the stuff gets on the market is through Mexico. My guess is that at least 100 guys go down regularly to buy drugs and then smuggle them across the Texas or California border. The Mexican connection is really valuable because of

66. Hatfield, *What Kind*, p. 3.

67. Doug Nassif, “Steroid Underground.” *Muscle and Fitness*. 27 (December, 1983): 244.

the devaluation of the peso. You can buy Primabolin down there for maybe 30 to 40 cents a unit and sell it up here for four dollars.

Most people don't understand how easy it is to buy steroids. All you have to do is to go into almost any gym in the U.S. and inside of a day you can score. Every gym has at least one dealer, and those thousands of small dealers usually get it from the big boys. The largest group of users would be bodybuilders, of course, and I don't mean competitive bodybuilders. I mean average guys who just wanted to be bigger and stronger as fast as they can. The last three or four years, the use of the stuff has just exploded and I'd bet there are over a million guys in the U.S. using steroids.⁶⁸

One reason for the rapid growth of the black market during the early 1980s was the virtual impunity with which dealers could act. Tony Fitton, for instance, who was released in the fall of 1986 after serving nine months in the federal penal system for attempting to smuggle steroids across the Mexico-California border, was stopped by customs agents on at least two previous occasions and subsequently released without serving any jail time. In 1981, for example, he was stopped by the customs police at Atlanta International Airport with more than 200,000 doses of anabolic steroids in his luggage. He received a suspended sentence.⁶⁹

Over the past two years, however, the attitude of state and federal officials has undergone a substantial change. Aware at last of the size and seriousness of the problem, various agencies have begun to act, as Fitton and others have learned to their sorrow. The mail order steroid business has been hit especially hard as the following passage makes clear. It is from a current order form of a California concern known, with wonderful irony, as the John Ziegler Fan Club.

These ordering instructions are current as of 2/2/86. Please follow these instructions exactly for your safety and ours. Do not write or speak on the phone the full name of the product, use only its assigned number code. Method of payment should be either cash or a totally blank POSTAL money order.

You may or may not know that the federal government, particularly the FBI, has instigated a serious effort to WIPE OUT the black market steroid business. In the last month, major suppliers on both the east and west coasts have been put out of business. Why are we doing all this? The government can legally open mail. The FBI can legally, without a court order, tap a phone for 48 hours. We want to stay in business, and you won't believe how hard it's going to be to find anabolics in the future.⁷⁰

Another way in which the federal government is cracking down on the indiscriminate use of anabolic steroids involves the FDA, as the following passage from an article in the *Medical Advertising News* explains.

In its attempts to curtail the black market for anabolic steroids, the FDA recently tightened the approved uses of steroids. The regulatory agency removed all "possibly" or "probably" effective indications for which manufacturers could not provide efficacy proof. In March, the agency pulled off the market two anabolic

68. Interview conducted by Terry Todd. Subject's name withheld by request. Transcript on file at Todd-McLean Collection.

69. Telephone interview with Clifford A. Stitcher, Assistant District Attorney, Jonesboro, Georgia, 2 July 1985. Notes on file in Todd-McLean Collection.

70. Advertising flyer, "John Ziegler Fan Club," 2 February 1986. On file in Todd-McLean Collection.

steroids, methandrostenalone and methandriol, manufactured by 29 companies—most of them generic—because of the lack of proof of efficacy.⁷¹

Many people who observe the larger sporting world worry that such actions are too little and too late, that anabolic drugs have ruined sport. The main problem with these drugs is that not only do they vitiate fairness and pose potential harm to the health of athletes, but they rob the spectator as well. They require us to bring to the stadiums a new cynicism, a new rationale for the watching of sport. No longer is it possible to simply witness a world record and thrill at the marvelous achievement an athlete can produce through the combination of talent and will. Spectators now also ask, “Yes, but did he or she use drugs to set this record?” Ultimately, such speculation may turn spectators away from sport. The attraction of sport has always resided largely in the simple clarity of the struggle of man against man, woman against woman, actual against potential. Some sport scholars, such as John Hoberman, author of *Sport and Political Ideology*, fear that the most dramatic symbol of the technologizing of sport is a future in which hand-picked, chemically manipulated athletes will compete against other hand-picked, chemically manipulated athletes.⁷² Whether we can find a mythology which allows us to be interested in such activity—let alone honor it—remains to be seen.

If the last several years are any indication, however, Hoberman and others have good reason to be concerned about the continuing spread of drugs—the continuing technologizing of sport. Consider these recent facts: (1) San Diego State University suspended its track and field program pending the investigation of steroid use among its athletes and coaching staff; (2) Baylor’s head basketball coach resigned after a player went public with a tape he made while discussing steroids with the coach; (3) Vanderbilt University’s strength coach and a local pharmacist were indicted for providing steroids to the Vandy players and for participating in a “steroid ring” that involved numerous other East Coast colleges; (4) a survey by a *Waco Times Herald* reporter revealed that steroid use existed at every school in the Southwestern conference; (5) Michael David Williams, a Maryland bodybuilder, went on a crime binge while on the top end of a long cycle of steroids, robbing six homes and burning three, yet was only required to undergo outpatient counseling after his attorney successfully argued that the steroids and testosterone had altered his personality and made him unable to fully understand the consequence of his actions; (6) five Canadian weightlifters returning from the world championships in Moscow were stopped at the Montreal airport and found to be in possession of tens of thousands of doses of steroids purchased from the Soviet athletes for resale over here; (7) the two top superheavyweight lifters in the world—Anatoly Pisarenko and Alexander Kurlovich—were stopped a year or so later in the same airport on their way to a Canadian competition and found to have over \$10,000 worth of steroids

71. Valerie DeBernadette and Terry Todd, “Anabolic Steroids: Black Market and Black Eye,” *Medical Advertising News*, 5 (15 June 1986): 5.

72. John M. Hoberman, “Sport and the Man Machine Synthesis,” Unpublished Manuscript. (April 1986). On file at Todd-McLean Collection.

in their luggage; (8) Dr. Walter Jekot, a physician who treats athletes on the West Coast, distributed printed announcements in at least one of his three offices offering free injections of steroids in exchange for the referral of new patients; and (9) Brian Bosworth and 20 other collegiate football players were banned by the NCAA from participation in post-season bowls after testing positive for anabolic steroids.⁷³ The problem is clearly not going away.

What can be done? For one thing, testing, when properly administered, and with appropriate sanctions in place, makes a difference. Studies have shown that when testing is done, performance levels drop, thus making the competition fairer for non-users.⁷⁴ It is, however, no secret that just as Donike and the testers are searching for greater accuracy, the athletes are searching for loopholes. Growth Hormone, for instance, will remain a problem until a test is developed for it. Some experts recommend that all of these substances—testosterone and its synthetic derivatives as well as hGH—be reclassified by the food and drug administration. Were these drugs to become “controlled” substances, it would be much harder for pharmacists to sell them indiscriminately and black marketeers would face stiffer penalties when caught. Legislation such as that recently passed by the California and Florida Legislatures will also have an impact as it makes the illicit sale of steroids a felony and prevents the prescription of steroids for anything other than medically approved therapy.⁷⁵

But even if all fifty states were to pass such legislation, and all sporting bodies were to test with regularity, it is unlikely that athletics would return to relatively drug-free times. The new wave, the athletic avant-garde, is already looking into other techniques, such as the possible use of implants-electrodes and computer chips-inside the body. One researcher has already succeeded in producing an excess of natural testosterone in animals by implanting and stimulating electrodes in their brains. He told a reporter for *Women's Sports*, “If you're trying to develop superfolk, I can tell you for a fact that the way to do it is through substances in the brain. There are many proteins that can absolutely turn someone into a raging superstar if tapped appropriately.”⁷⁶

Finally, consider the fact that the same bodybuilder who first experimented with rhesus monkey Growth Hormone is now working with a team of Japanese scientists on the possibility of a computer chip implant which will control his

73. “San Diego State Track Team Hit with Steroid Scandal,” *Press-Telegram*, 26 March 1986, p. 33; “Steroid Use Cloaked in Secrecy,” *Dallas Morning News*, 23 February 1985, p. C-1; “Vandy Players Used Steroids,” *The Tennessean*, 9 January 1985, p. B-1; “On Your Marks,” *Track and Field News*, June 1985, p. 39; “Steroid Use on Trial,” *New York Times*, 2 April 1986, p. 14; “Canadians Busted for Steroids,” *International Olympic Lifter*, 8 (August 84): 29; “Pisarenko and Kurlovich Nabbed for Steroid Smuggling,” *International Olympic Lifter*, 9 (September 1984): 12-13; Flyer on Dr. Walter F. Jekot's Stationary: “Bodybuilders-For each new patient you refer to our office you will receive one of the following: 1. Either six free Deca 50 mg. injections or three free Deca 100 mg. injections.” Flyer on file at Todd-McLean Collection; Craig Neff, “Bosworth Faces the Music,” *Sports Illustrated*, 66 (5 January 1987): 20-25.

74. Interview with Professor Arnold Beckett of the IOC Drug Testing Laboratory at the University of London, January 1982.

75. California Assemblyman Gary Condit is responsible for the California legislation. See “Anabolic Steroid Legislative Package,” provided by Assemblyman Condit's office, on file in Todd-McLean Collection.

76. Marjorie Shuer, “Steroids,” *Women's Sports*, 4 (April 1982): 58.

hormonal secretions. He estimates that the project may cost him as much as two million dollars, but he is now a rather wealthy man and he intends to go ahead with the project. He began his bodybuilding career as most young men do—with the simple desire to become a little stronger, a little healthier. But, as the philosopher George Santayana said, “Fanaticism consists in redoubling your efforts when you have forgotten your aim.”⁷⁷

77. George Santayana, *The Life of Reason* (New York: Scribners, 1905), II:85