



Testosterone dreams

Rejuvenation, aphrodisia, doping

John Hoberman

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These days, few things in science make more headlines than the pharmaceutical industry. The difficulties in bringing new drugs to the market, the controversies over how clinical trial results are disseminated, and the influence of marketing on drug use appear daily in the press. The consumers and manufacturers of “lifestyle” drugs used to optimize personality and performance have been particularly popular targets. Are we medicating personality rather than disease with Prozac? Are we producing attentive scholastic automatons with Ritalin? Doping scandals have rocked competitions from the Tour de France to the Olympics, and now scandals in professional sports, including baseball player Rafael Palmeiro testing positive for anabolic steroids, have brought drugs used to enhance athletic performance to center stage.

This is the setting of *Testosterone dreams: rejuvenation, aphrodisia, doping*, John Hoberman’s book about the marketing of estrogen and testosterone from their first medical use to the present, including recent doping scandals and the growing popularity of testosterone as a lifestyle aid for aging baby boomers. The book explores how scientific innovation, namely the synthesis and production of steroids, impacts cultural views about gender roles, sexual behavior, and athletic performance. The goal is to describe the cultural history of gonadal steroid use. The book is one-third history, two-thirds social commentary, and a smidgen of science.

The first half of the book describes the evolution of attitudes toward sexual behavior beginning in the 1890s. The entry of women into the workforce during World War II, the Alfred Kinsey studies, and the emergence of sexual disinterest as a disease state all enhanced the acceptance of estrogen and testosterone as therapeutic agents. Much deserved credit is given to Freud and

his view that frigidity and lack of sex drive constitute a disease that should be treated. Meanwhile, research in the US and elsewhere showed that testosterone promoted virility, laying the groundwork for the enthusiasm for using it to optimize sexual function. Fascinating snippets from old journals provide a window into the medicine of the 1930s and ’40s. Unfortunately, the narrative bounces back and forth, from the 1890s to the 1950s, back to the 1920s, forward to the sexual revolution of the 1960s, and back to the 1930s. A more linear narrative would have made this book much easier to read.

The second half focuses on the use of drugs in sports plus presenting information about testosterone as an aid to sexual function. The text focuses on the ethical, political, and medical tension between the rights of athletes to optimize their physiology and issues of fairness in competition. Treating the subject of sexual function in a parallel vein, the book provides examples of the “mini boom” in anti-aging clinics that embrace alternative treatments, including hormonal cocktails. These explanations, the author asserts, perhaps explain the 500% increase in testosterone prescriptions between 1993 and 2003.

Athletes who used drugs to improve performance, the physicians who helped them or caught them cheating, and the media that reported on the events all contribute to the tale. The book lays out some pertinent controversies: Is athletics simply a form of employment that causes suffering for which athletes deserve medication? Is doping an economic problem maintained by the financial interests of sponsors and media companies? Both sides are articulated well. The book traces the complicated evolution leading to our love-hate attitudes toward drug use in sports and for other nonmedical purposes. We condemn drug use, yet baseball

players endorse Viagra, and the current governor of California became famous partly as a result of steroid abuse some time ago. In an environment where the public accepts drug use to optimize performance of many kinds, will prohibitions against doping ever work?

The premise of this book is interesting but not shocking. Marketing and evolving cultural attitudes toward using drugs to optimize lifestyle have driven the medical use of estrogen and testosterone just as they do other drugs. It reads like a journalist’s version of social history, with lots of quotes from easily accessible sources such as medical journals and newspapers. The appropriate experts have been consulted, and the stories are interesting.

The absence of science limited my enthusiasm for the book. For example, the author is bemused about the failure of testosterone to catch on as a medicine but mainly dismisses the side effects of testosterone and doesn’t even consider the differences between the amounts used medically and the suprapharmacologic doses used by athletes. He is fond of pronouncements such as “the unconscious purpose of this demand [for drug-induced enhancement] is to provide symbolic confirmation of the unchanging essence of human nature at a time when that very idea has been radically destabilized by the prospect of genetic manipulation.” However, he doesn’t back up such statements with facts.

The bottom line is right on. Anabolic steroid use is tolerated in sports because people want to see record-breaking performances and corporate interests make a lot of money from those performances. This is part of a larger cultural milieu that accepts the use of drugs to optimize performance, not just to cure disease. This conclusion makes this book a cautionary tale for any physician besieged by aging boomers wishing to optimize their lifestyle.