

Study confirms harms of anabolic steroid abuse

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By Megan Rauscher

NEW YORK (Reuters Health) - Male bodybuilders who take muscle-building anabolic steroids risk sexual problems, reduced fertility and heart trouble, a study confirms.

Among bodybuilders who voluntarily started taking anabolic steroid pills or shots for the first time, repeated testing over two years showed a dip in levels of male hormones, shrunken testicles, low sperm counts, enlarged breasts, and low blood levels of heart-healthy HDL-cholesterol.

Professor Antonio Bonetti from the University of Parma, Italy and colleagues report their findings in the *International Journal of Sports Medicine*.

"Our investigation peers into the world of gyms and bodybuilding, which has often been investigated, but about which it is difficult to gather information because of the conspiracy of silence surrounding the use of illegal substances," Bonetti and colleagues write.

All 22 of the bodybuilders approached for the study were warned about the potential health risks and harmful effects of high doses of anabolic steroids, the researchers explain, and, as a result of this counseling, two decided against using steroids.

During the study, seven of the remaining 20 bodybuilders stopped taking steroids and withdrew from the study for a variety of reasons including emotional ups and downs, depression, aggressiveness, sexual problems and family problems.

"We observed severe psychological disturbances with behavioral and relationship problems: emotional inconstancy, lack of motivation during training and at work, apathy, depression, aggressiveness, the rebound effect following drug suspension, symptoms of paranoia, sexual dysfunction and family problems," Bonetti noted in an e-mail to Reuters Health.

"These problems led one subject to alcohol abuse and another to psychiatric drug therapy; in one body-builder, symptoms of clinical depression (diagnosed before) worsened following anabolic-androgenic steroid use and he was hospitalized," the researcher added.

"The most important modification observed was impairment in the lipid profile associated with an increased cardiovascular risk," Bonetti said. Levels of "good" HDL cholesterol fell during steroid administration, as did levels of Apo-A1. Low levels of the blood protein Apo-A1 have been linked to an increased risk of heart attack.

Another "important long-term adverse effect" of anabolic steroid use was reduced fertility, consistent with prior studies. The bodybuilders experienced a significant decrease in sperm count and "fertility index."

SOURCE: International Journal of Sports Medicine, September 2008.