

Testimony of Dr. Bernard Greisemer of Springfield, Missouri

Good morning, my name is Dr. Bernard Greisemer.

This year, I will begin my twenty-fifth year as a pediatrician and a sports medicine specialist. I appreciate this opportunity to present both medical information and my concerns regarding the increasing use in young athletes of products that contain anabolic steroids. The highly publicized use of these substances by professional athletes does influence the incidence of use in elementary, middle school, high school, and collegiate athletes.

For the purpose of our discussion, pediatricians do not distinguish between anabolic steroids and steroid precursors that are in dietary supplements. These substances have same effects and health risks.

There are three points that I would like to briefly address.

There are major health problems associated with the use of anabolic steroids in all age ranges. However, the side effects of anabolic steroids in younger athletes have the potential of far greater risks that they do in adult athletes. Young athletes who start using these products in the middle school years and continue to use them through adolescence and into adulthood are likely to face higher risks of cardiac, hepatic, and dermatologic damage. Many of my teenage male athletes are very unhappy to learn that managing their premature male pattern baldness is very difficult if they have been using dietary supplements with anabolic steroids since they were in seventh grade. The risks of cardiovascular complications of the use of these substances are the subject of ongoing research and the possibility that the complication rate for younger athletes is higher is only now beginning to be explored. The list of organ systems in young athletes that potentially can suffer adverse effects of anabolic steroids includes nearly every organ system in the human body.

One side effect of these substances is unique to the younger athletes. Medical research has documented that anabolic steroids, even when used in disease management, results in the acceleration of pubertal development and premature height growth arrest. This adverse effect is not seen in the adult population of athletes and is unique to the skeletally immature young athlete. This growth arrest is irreversible.

In women of all ages many of the effects of these substances on the vocal cords and the reproductive system are irreversible. The evidence that these products result in long health complications in young women and may even result in severe deformities in their offspring is currently coming to public attention in Germany.

Younger athletes also have an additional problem. The product disclaimers and fine-print list of side effects that accompany these substances are often written in language that exceeds the reading comprehension level of middle school students. Young athletes see the flashy banners, hear the endorsements of professional athletes, and see the effects of these drugs on professional athletes when they are competing on television. Young athletes are less likely to read and understand warning labels. Further, in many circumstances the labeling of products

containing anabolic steroids is either inaccurate or unavailable. This fact is primarily what brings young athletes into our offices with questions about anabolic androgenic steroids.

This leads to my second point of discussion. The effect of media exposure and marketing campaigns on young athletes is clearly established. Perceptions about self-image, peer relationships, and success are easily manipulated at this age range. Major corporate efforts and financial resources are targeted at this age range in attempts to influence lifestyles and purchasing trends that are expected to persist into adulthood. This statement is supported by research in our medical literature and by research in the media, advertising, and marketing industries. In this context, professional athletes are major role models for our young athletes; in the clothes they wear, the cars they drive, the food they eat, and the drugs and dietary supplements they take. The millions of dollars that are spent by major corporations in linking their products to a particular athlete, team, or sporting event, counter any argument that professional athletes are not affecting the lifestyles of our young athletes. Use of, and media exposure of the use of, anabolic steroids in professional athletes also directly affects the interest in, the perception of benefits of, and the use of these substances.

I need to emphasize that myself and other pediatricians are seeing the effect of professional athlete's behavior affecting the behavior of our young athletes at increasingly younger ages over the last two decades. We see this influence in the questions they ask regarding anabolic steroids and other dietary supplements that are promoted as having anabolic performance enhancing effects. We see the frequency of these questions surge with each new media expose of the use of these substances by professional athletes. The pediatric medical literature also has documented the use of products that contain anabolic androgenic steroids in athletes as early as the middle school age range. Recent research has documented use of anabolic androgenic steroids in 2.6 % of both male and female young athletes as early as fifth grade. In my experience, one of the most compelling reasons that these young athletes are using or are thinking about using these products is that the media and the aggressive marketing campaigns used by manufacturers all identify these products (and in the case of the manufacturers, heavily promote the use of these products) as being "used by the pros".

Third, pediatricians strongly agree with the Surgeon General of the United States that physical activity and proper nutrition are critical components of health in our young people. Establishing lifelong patterns of physical activity in the middle school and high school age ranges is one of the most effective means of achieving this goal. Youth sports are one of the most important ways in which American youth become and remain physically active. Any role model for youth in the arena of sports could have a positive influence on these young athletes to initiate or to continue competitive physical activity. Conversely, any perception that a young athlete can't participate, compete or excel in sports without the use of anabolic steroids will adversely affect youth participation in sports. If the perception involving professional athletes and anabolic steroids is that "everyone does it" or "you can't win without these substances" many young athletes will either stop participating or start using these substances. With physical activity becoming an increasingly important component of health in America, any effort that seeks to reduce the use

of anabolic steroids, at all levels of competition, will increase the participation rates among our young athletes who will understand that they can “just do it” without cheating. Pediatricians are adamant in their support of any program or legislation that strives to keep our young athletes healthy and strives to keep our youth sports programs healthy and drug free.

In summary, I strongly urge you to support any program that seeks to improve the health of the children in America. I strongly urge you to consider the impact that use of anabolic androgenic steroids by professional athletes has on our young athletes. Any effort to curb the use of these products in athletes of all ages, whether by drug testing programs and educational programs as currently are being developed by USADA, or by supporting youth sport programs that promote healthy training and conditioning alternatives to the use of these drugs, will be helpful to us. Pediatricians are working hard to develop healthy, drug free, physically active young Americans.

I would again like to thank you for this opportunity to bring this important issue to your attention.