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## **Drugs give boost, but there's a price**

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*I want a new drug*

*One that won't make me sick*

*One that won't make me crash my car?*

*Or make me feel 3 feet thick*

*-Huey Lewis and the News*

I get very annoyed when I see Congress wasting time on things like climate change, a spiraling deficit, a couple of wars and other trivial stuff.

So when they recently had hearings to determine if a lump in baseball pitcher Roger Clemens buttock was, in fact, due to an injection of anabolic steroids, my faith in democracy was restored.

One can just imagine a geek like Rep. Henry Waxman being shoved in a high school locker by someone like Roger Clemens, and Waxman's giddy pleasure in firing little bow-tied fast balls at Clemens head. Performance-enhancing drugs are all the media rage today, from the Tour de France to track athletes to the NFL and Major League Baseball. It seems like everyone is juicing.

So what exactly are these drugs and why are they such a big deal? Are you behind the times, and should you be juicing? Has the guy in

cubicle down your row got a chemical advantage that you've missed out on?

First of all, let no one get too pious about this subject. We all use performance-enhancing drugs. Coffee, for instance, is a powerful phosphodiesterase inhibitor, which translated means it relaxes smooth muscle, sharpens concentration and memory, and you know what all coffee does. Does a couple of pops of Chardonnay or gin decrease your social anxiety at an event? A few Motrin make that jog or racquetball game go a little smoother? Does a little Prozac or Paxil or Effexor or Xanax keep you from killing your spouse or kid? Let those without sin cast the first stone.

The two main players in the performance-enhancement arena are steroids and human growth hormone. A steroid is a chemical compounds composed of the sterol ring, which is three six-carbon rings and one five-carbon ring. The molecule looks like chicken wire.

The basic form is cholesterol, and all steroids are derived from this framework. There are many steroids naturally occurring in the body, and they are good and amazing molecules that regulate thousands of bodily functions. Most steroids have nothing to do with making big muscles. Testosterone is a steroid that does make big muscles, and this hormone has been a focus of intense study.

Testosterone is the principle hormone in humans that produces male secondary sex characteristics (androgenic), and is an important hormone in tissue healing and maintenance of muscle mass (anabolic). Scientists have fiddled around with the testosterone molecule to try to augment one effect or another. For instance, the East German female shot-putters in the old days had to shave twice a day, so scientists worked to reduce the androgenic effects (making you more of a guy) and increase the anabolic effects (make your muscles bigger). So by adding various other carbons and oxygens and such to the steroid rings, scientists were able to make testosterone derivatives that were more specifically anabolic (build you up) and less androgenic (mellow on the wolfman.) These derivatives have cool names like Danazol, Stanozolol and Anadrol-50.

Testosterone derivatives act inside the cell on specific testosterone

receptors, which in turn give instructions to the ribonucleic acid in the cells to pump you up. These compounds have been widely used by athletes the world over to increase strength, hasten healing and tremendously accelerate the training process.

So, you young aspiring local stud athlete, why not juice? Well, your acne explodes, your hair falls out, you develop psychotic rage with the slightest provocation, your eyes turn yellow, you start growing female-appearing breasts and, yes, your sexual apparatus shrinks. I don't care if you become a four-year starter; none of the above is OK. Forget the long-term consequences of malignant tumors and sterility when things start to shrivel up.

What about human growth hormone (HGH)? It works very well for children with short stature and measurable growth hormone deficiency. Adult growth hormone deficiency is a very controversial area, and some semi-shady physicians have made an industry out of finding growth hormone deficiency in adults and then treating it with injections. Most studies have found that using human growth hormone in the absence of a major deficiency really doesn't help performance.

If you really want to improve performance, genetics is the way to go. Young people really need to consider this carefully. For instance, my wife is attractive, bright, supportive, loving, blah, blah, blah. But she has no hops, can't dribble to the left at all and has no jump shot beyond 15 feet. Should I have pursued that girl in high school whose sister is in the WNBA?

No one tells you this stuff when you are young and suffused with lust. Years later, when your kid clanks one shot after another, it comes home to roost. And these families around town that crank out one star quarterback and point guard after another? Those kids are all coming from a secret, exclusive embryo bank in Switzerland. Don't tell anyone.

Performance-enhancing drugs are the ultimate Faustian bargain - a chance to achieve a dream at the cost of health and reputation. Do you think Barry Bonds is a happy guy? Is a piece of Floyd Landis' soul lying somewhere on a road in the Alps? Is the most significant

line in sports no longer the goal line but the line between clean and dirty? These are important conversations to have at the dinner table.

Now if we can just get Congress interested in the real world ...

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