# Gentlemen, We Can Rebuild Him. We [Will] Have The Technology.

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I'm a sports fan. As such, I've heard lots of debate over the "problem" of performance enhancing drugs (or PEDs). I use quotes around "problem" because you can find a contingent of fans who couldn't care less about PEDs and their impact so long as their team is winning and/or it is resulting in higher scoring, more exciting games. I bring this up because looking at the way medical device technology is advancing, how long will it be before PED actually stands for "performance enhancing device"?

One day, I envision that there will be medical technology that can exceed the capabilities of the human body's natural physiology. Should someone with such a device be prevented from playing professional sports due to the competitive advantage it provides? If Jim Abbott (former major league pitcher who was born without a hand) was fitted with a prosthetic hand at a young age that allowed him to grip the ball in such a way that it created "extra" movement on a pitched ball, would that be considered illegal for professional sports? (I do realize he pitched with his other hand, but I'm only using that as an example.) What about someone born without an entire arm? If the prosthetic enabled them to pitch faster than what is considered the limit for the human body, should (s)he then not be allowed to play? What about prosthetic legs that enabled someone to run faster? Obviously, one needs to look no further than the debate over Oscar Pistorius and his showing in the

Olympics in 2012 to see the technology is coming. It's just a matter of deciding what to do when it is "clearly evident" that the technology provides a competitive advantage. I don't think we're at that level yet.

As for actually answering that debate as it relates to sports, I don't think it's something that needs to be resolved by me. For the most part, natural physiology is still preferable to just about any medical device. But when the time comes to have that discussion, I'll leave it up to the individual sports (and the overzealous media that covers them) to address the question.

It does, however, make for an interesting discussion when looking at medical devices being used to replace natural limbs or organs on a person where they are not encumbered by a birth defect or disease. Should someone be allowed to replace a body part or organ that is healthy and functioning normally with a medical device because the device is a better alternative than the original? And by better, I mean that it enables a greater level of performance.

Elective cosmetic surgery is nothing new in healthcare. In that case, however, the "enhancement" is taking place without replacing a functional organ or body part. It may be modified in some way, but the natural structure mostly remains. There may be some natural "anatomy" (for lack of a better term) removed, but again, the body is mostly unchanged from a natural vs. synthetic point of view.

What happens if a medical device company produces a mechanical heart that actually works better than our own human heart? It is more durable, less vulnerable to damage and disease, pumps more efficiently, etc. Besides the rejoicing by anyone on a heart transplant list, what happens when the public sees a transplant recipient able to run faster because their heart pumps blood more efficiently than a natural human heart? Should doctors replace a normally functioning human heart with this superior product?

While I'm all about people enjoying an array of personal freedoms, I have to admit that something about this topic has me wondering. Would this be something that would have to be governed by law? Would it then be recognized around the world or would the trend of "medical travel" take another turn where people who have the means are heading to a location to get a new "bionic" heart even though they don't truly need one?

On the other hand, why shouldn't people be permitted to get a new medical technology that
functions better than the body part they have? Shouldn't it be a matter between the patient and the doctor to set any limit on such a procedure?

I find this to be a very interesting topic and I'd love to hear from any reader who wants to share their opinion on it.

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