

ELECTIVE PERFORMANCE ENHANCEMENT SURGERY FOR ATHLETES: SHOULD IT BE RESISTED?

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The following article describes some surgeries used to enhance athletic performance along with discussion of possible ones that could be used in the upcoming years for this purpose. Elective eye surgery is used by numerous athletes in sports where sight is an essential aspect of success. This raises the ethical question of whether it is morally acceptable to perform enhancement surgery for the purpose of developing capabilities that are superior to normal, such as 20/10 vision. Criteria to determine the morality of these actions is necessary, especially when the surgery is optional and is motivated not by therapeutic needs but to enhance performance and to create an ability above and beyond the norm. It is one thing to have corrective surgery for convenience's sake or to slow down deterioration, but it is quite another to do it to create superior vision, such as 20/10.

With the acceptance of this rather benign eye surgery and due to the advances in minimally invasive surgical techniques, the crackdown on steroid usage, and the growing financial incentives for athletes, it is only a matter of time before this evolves into athletes having elective surgeries to become bigger, stronger, or faster. Elective surgery will expand in its usage to enhance performance. This raises a plethora of moral issues, therefore there must be serious pursuit of criteria to evaluate the morality of this type of elective surgery and encouragement of athletic institutions to be proactive in policy making. Finally, there is discussion on whether a solution can begin to be found in transhumanism, in a pragmatic approach or in returning to an essentialist view of human nature.

Keywords: Athletic performance enhancement, ergogenic aids, elective surgery, doping.

INTRODUCTION

Sport history reveals that athletes will use any means possible to get an edge. Five different types of these ergogenic aids have been elaborated on in the *Journal of the Philosophy of Sport* (Holowchak, 2002). Many of these methods are acceptable (better training, equipment, or diet) while others, such as using pharmaceutical technologies to improve skills, are generally not tolerated. Genetic engineering is advancing upon us and will create massive ethical complications in the performance enhancement debate. Meanwhile another performance enhancing practice generally neglected as part of the discussion has been around for over decade with new forms of it being rapidly advanced, elective performance enhancement surgery. Surgical procedures are being employed to enhance general human performance in memory, concentration, vision, strength; it is naive to ignore these advances in sports competition. Ethical considerations of these procedures should be pursued.

The most common form of surgical performance enhancement is LASIK eye surgery. Its results have been very convenient for professional baseball players or golfers who no longer need to wear glasses or contacts; some have even claimed it has made them more effective players. The Tommy John surgery¹ on the arm or UCL (ulnar collateral ligament reconstruction) has been done on many professional baseball pitchers with over 90% returning to pre-injury form. As this procedure has been refined it has also become common knowledge that some pitchers are actually increasing their pitching speed after the surgery. Traditionally Tommy John surgery was done for therapeutic reasons to repair an injury just as LASIK has been done to be rid of the inconvenience of contact lenses or to correct a vision defect. But now there are those who do not need glasses having elective surgery to improve vision beyond perfect. The uncritical acceptance of this rather benign eye surgery, along with the advances in surgical techniques (especially micro surgeries or scoping) and the lessen-

¹ Named after Tommy John, a major league baseball pitcher, who in 1974 was diagnosed with a career-threatening torn ulnar collateral ligament in his pitching elbow and who first had this experimental surgery. Dr. Frank Jobe took a tendon from John's non-pitching arm and used it to replace the torn ligament on his pitching arm by threading the healthy tendon through holes drilled into the bone above and below the elbow. John went on to pitch many years after this procedure. It has become a very common procedure with over 10% of all major league pitchers having had it done.

ing of recovery times opens the door to the possibility of athletes having elective surgeries to enhance their senses or to become bigger, stronger, or faster. Someone will soon choose to have advanced surgery to enhance performance, such as electively having the Tommy John (UCL) surgery with the hope of throwing a baseball harder afterwards. The possibilities of elective surgery seem endless. Liposuction could become a convenient means of weight loss for wrestlers. The distance of a golfer's drive could be bettered through elective ligament elbow surgery. It seems inevitable power lifters who use ergogenic means such as tight fitting suits and wraps will someday have metal knee joints implanted. It is not inconceivable for an athlete to consider elective tendon surgery to become faster. Sports organizations need to be proactive and prepared to face the possibility of these procedures by establishing moral policy. This paper will explore some of the ramifications of elective performance enhancement surgery as a type of sport technology and present some possible guidelines. Quite obviously further philosophical discussion will be needed.

THE SURGICAL OPTION

Picture this scenario: You are a twenty seven year old professional minor league athlete or high level amateur. You have been knocking on the door to become a true professional in your sport and to make a very substantial income. Your options are beginning to run out and the end of your professional dreams is nearing. You ask management for an explanation. They tell you they like your mental approach to your sport, it's just that you lack a little ability to really become successful. If you were a baseball pitcher and threw several miles an hour more there would be a place for you on a big league roster. You could make the professional golfers' tour if you could drive the ball a little farther. A career in track awaits you if you could just cut a few hundredths of a second. You are shattered. You've already over-achieved. What options are left now? What about surgery on a tendon or ligament to increase driving distance or foot speed? What about optional Tommy John surgery to increase pitch speed?

These surgeries have little risk and there would actually be the chance of coming out of it in a year or two a faster runner or with a stronger than ever arm.² Concerning Tommy John surgery, Mike Dodd from USA Today has written that: "These players typically perform as

well, if not better, after the operation and have stronger arms, with radar gun readings to match." Chicago Cubs pitcher Kerry Wood declared: "I hit my top speed (in pitch velocity) after the surgery... I am throwing harder consistently."³ One other pitcher jokingly remarked: "It felt so good when I came back, I recommend it to everybody... regardless of what your ligament looks like."³ Knowing the mentality of doing anything to "make it", athletes will obviously consider this type of surgery to enhance performance to achieve the highest levels possible. This is particularly true as the financial incentives skyrocket, the steroids become more widely tested for, and new surgical procedures become less invasive.

LASIK EYE SURGERY

Maybe it has already begun. "Scores of pro-athletes have had laser eye surgery, known as LASIK (Laser Assisted In Situ Keratomileusis). Many, like Tiger Woods, have upgraded their vision to 20/15 or better. Golfers Hale Irwin, Tom Kite, and Mike Weir have hit the 20/15 mark." So have numerous professional baseball players. Professional basketball players Amare Stoudemire and Rip Hamilton have had it done, along with some very successful professional football players. "These are just some of the athletes who have disclosed their results." There are numerous examples of athletes who have upgraded their performance after the surgery and this should be no surprise to us since vision plays a central role in most sporting competition. For example, professional golfer Tom Kite had LASIK in 1998 and won six events on the Champions Tour over the next five years. And just a few months after his surgery, Hale Irwin captured the Senior Professional Golfers' Association Tour Nationwide Championship. The surgery assists one in judging distances. Tiki Barber, an American professional football running back⁴ had "LASIK Diamond Vision to correct his slight nearsightedness, and could see 20/15 the next day". If better than perfect vision is a realistic, attainable goal, then we are looking at the possible development of creating surgically enhanced laboratory athletes who exceed the capabilities of normal humans with perfect vision. LASIK is now being done on those needing slight corrections to gain more than perfect vision for those already with good vision.

The use of what is called wavefront technology, customized individualized treatment, can occur, which can improve vision even further. Where will the quest for im-

² Top level professional major league baseball pitchers such as Mariano Rivera, Matt Morris, and Kerry Wood have successfully returned from this Tommy John surgery.

³ *Ibid.*, p. 2.

⁴ Great vision is very important for the players who run with the ball in American football. Being able to see the whole field and to see down field can be a tremendous advantage. Barber is currently one of the best running backs in American football.

proved vision end? Obviously this surgery gives athletes in sports like baseball, tennis, basketball, or rifle substantial visual improvement and thus a distinct advantage. But it's probably not unfair because it is available to almost anyone. It is a form of enhancement as 69% who have traditional LASIK performed are reporting vision of 20/16 six months after surgery and for those having wavefront the percentage goes up to 85%.⁵ This augmentation of the natural endowment has become perfectly acceptable without any serious moral questioning. But "if the sport objects to taking a pill or applying a cream that temporarily changes your body's chemistry, surely it should be an even graver offense to reshape your cornea or to engineer a tendon and bone structure".⁶ There certainly seem to be ethical implications to an elective surgery that creates capabilities greater than they were prior to the surgery and advanced beyond the normal average human.

ARM PUMP

There is a condition that athletes experience in certain sports like motocross or BMX riders called arm pump, also known as chronic exertion compartment syndrome. It results from the failure of blood to leave the forearm when new blood is pumped in creating a build up or backpressure. Since the forearm compartment is not elastic the nerves and muscles get compressed and cannot function correctly.⁷ It can be slightly annoying or almost debilitating resulting in loss of sensation and an inability to contract the muscles. This occurs in sports where grip is central to the activity.

Muscles are wrapped in fascia, which is much like the casing on sausage.⁸ Fascia is strong but inelastic so volume increase causes pressure in the compartment. As pressure increases it engorges the forearm causing the forearm to become rock-like, affecting function. Veins, capillaries, and arteries can collapse. This causes the arms to feel like concrete blocks, to go numb and fly off the grips. There are conditioning programs designed to prevent this but one of the methods of prevention to enhance performance is surgery. The surgery called a fasciotomy is necessary for some in order to be able to continue competing without great pain, but others have it simply for the purpose of performance enhancement to be able to compete at the highest levels of the sport. But this procedure has some risks and has had some

failures. The success rate is estimated at only 50%.⁹ One of the best known MX racers, Brock Sellards states: "If I could go back in time, I'd have never done the surgery because of the problems I had." Nevertheless some professional riders have taken this drastic measure to prevent arm pump from occurring and by doing so enhance their performance to the point that it arguably gives them an unfair advantage over those not choosing the surgery. Since the surgery has some risk and is used both to prevent the condition and to enhance performance, numerous ethical questions are raised. Should the surgery be banned or remain optional and should it only be permitted on those who have a serious arm pump problem? Is there coercion upon a rider like Stephan Roncoda who consistently finishes in the top ten but has trouble being in the top three due to arm pump? It certainly seems as though those who optionally have this surgery gain an advantage over Roncoda and could coerce him to have it done simply to enhance performance and to keep up with those who had already had the procedure for no therapeutic purpose.

TRANSGENDER ATHLETES

There have been cases of athletes who have competed as one gender only to undergo sex reassignment and compete as the other sex. In 1975 Renee Richards (born Richard Raskind in 1934) underwent sex reassignment surgery and in 1976 the U.S. Tennis Association denied her entrance into the U.S. Open. Several women complained that Richards had an unfair physical advantage. She challenged the legality of the ban and in 1977 the N. Y. Supreme Court ruled in her favor.¹⁰ "Richards played for five years, winning one singles title. She also reached the quarter-finals at the 1978 U.S. Open." This surgery allowed Richards to gain an athletic opportunity and advantage that would not have been afforded her as a man.

The LPGA, U.S. Golf Association and the Ladies European Tour have policies against transgender athletes participating. They established this policy because of Charlotte Wood, a transsexual who was 50 when she finished third in the 1987 U. S. Senior Women's Amateur, and reached the semis of the U.S. Women's Mid-Amateur. To exclude her, these professional organizations then placed the phrase "female at birth" clause in their entry forms.¹¹ In 2004, Mianne Bagger became

⁵ Saletan, p. 3.

⁶ Johnson, p. 2.

⁷ Dr. Dale Macdonald and Tim Crytser, "Virtual trainer: Arm pump", in Racer X online, p. 1.

⁸ Ibid., p. 2.

⁹ Ibid.

¹⁰ "Sports Transgender Issues."

¹¹ "Transsexual Golfer Confusing Golf World."

the first transsexual to play in a pro golf tournament in the Women's Australian Open. Bagger stated it was her dream to play top level golf. Though it may be considered quite radical, it is not inconceivable that someone could be dream obsessed or desperate enough to seek out a sex change operation and treatment out of the motivation to play at a "higher level" as a woman professional. One of the ladies competing against Bagger stated: "She's a girl now, let her have a go. She's not gaining any advantage from what I understand. She doesn't hit the ball 350 yards. Why not give her a chance?"¹² But it is certain these same women be crying "foul" if Bagger did begin to hit the ball 350 yards and began winning some major tournaments.

Obviously this issue of transgender athletes is being individually dealt with by some sports organizations. In 2004 prior to the Olympics, the IOC approved that "athletes who have undergone sex-change surgery will be eligible for the Olympics if their new gender has been legally recognized and they have gone through a minimum two year period of postoperative hormone therapy... Men have higher levels of testosterone and greater muscle to fat ration and heart and lung capacity. However, doctors say, testosterone levels and muscle mass drop after hormone therapy and sex change surgery." But it is only a matter of time before this will create major controversy, especially with the increase in this procedure. Wait until transgender athletes begin winning medals at the Olympics. IOC spokeswoman, Giselle Davies, said: "The situation of transsexuals competing in high level sports was rare but becoming more common." But Joe Kelley sarcastically writes: "Olympic athletes are routinely disqualified for minute amounts of caffeine in their blood, but having the opposite chromosomes of their competitors is approved."¹³ Futuristically then, the only realistic solution may be to merge both sexes into one open division. If transhumanism prevails this could be the consequence but more on that later.

The issue of fair play is an important part of the discussion about transgendered athletes. Research to determine whether these athletes have an unfair biological advantage due to hormones, muscle mass or skeletal structure, and policy must be contiguous to the research. Unfairness is the reason given by some organizations that continue to ban transsexuals. "Some observers have expressed concern that transsexual athletes may, in spite of the rules, possess an unfair advantage over their peers. One news report quoted an Ottawa doctor's claims that male to female transsexuals will have the advantage of size and strength, while female to male transsexuals could have an edge where endurance is concerned. The report raised the spectre of Olympic

obsessed athletes changing sex to gain the upper hand." More recently Michelle formerly Michael Dumaresq has competed for Canada in mountain bike racing. Dumaresq challenges this notion and states: "I have lost the ability to build muscle and have lost the muscle mass that I once had."¹⁴ She believes that there will be more transsexuals in future Olympics.

Surgery is not prohibited yet steroids are. Whether one agrees or disagrees with the IOC's position, they should be given credit for closely examining the transgender issue and taking an educated stand on it in a way that attempts to maintain the integrity of the competition. Research must continue and other organizations that have no policy have not been nearly as sensible or proactive and could be blindsided when this issue arises under their jurisdiction.

ABORTION

Abortion, an elective surgical procedure, has also reportedly been used for the purpose of enhancing athletic performance. Pregnancy days prior to an event can actually provide as much as a 10% enhancement. A Finnish sports medicine expert has stated: "Now that drug testing is routine, pregnancy is becoming the favorite way of getting an edge on competition." A Russian athlete told a reporter that "in the 70's, gymnasts as young as 14 were ordered to sleep with their coaches to get pregnant - and then abort". The IOC has banned it as a form of doping but what about other governing organizations? Unfortunately they seem to be condoning this surgical procedure by their silence.

EVALUATIVE ISSUES

"Sports... may be defined, or at least described, as competitive events involving a variety of physical (usually in combination with other) human skills, where the superior participant is judged to have exhibited those skills in a superior way." Because of the physicality of sport, there will always be those seeking ways to advance the bodily capabilities of humans. Surgical procedures could be done to correct a birth deficiency, to restore one to a level prior to an injury or deterioration, or to enhance the physical skill of an athlete to a state better than normal. Currently we have surgeries being done to enhance performance when there is a weakness by birth (examples are nose surgery to improve breathing on a permanent basis the way external adhesive nasal strips help athletes temporarily breathe better, or LASIK).

¹² "Transsexual Tees Off At Pro Event."

¹³ Kelley, p. 1.

¹⁴ Ibid.

These are quite safe. They also create the possibility of performance improvement, but they seem to only allow athletes to compete at a more equal level because it is corrective not beyond the norm. There are also surgeries done to restore one to a previous capability. But ethical concerns about these surgeries arise when, even if they are corrective, they produce results that enhance capabilities beyond the norm (such as LASIK where the result is not 20/20 but 20/10). It is self-evident that surgical practices which enhance the athlete beyond what is considered to be normal could certainly give the surgically enhanced athlete a competitive advantage. Surgery has historically been seen as a means to correct or heal for therapeutic reasons. But as cosmetic operations have become acceptable as a non-therapeutic means of surgery, so it seems that what is now beginning among athletes is enhancement surgery for non-therapeutic means. And it has become an acceptable practice without much critical thought or established policy. The Professional Golfers' Association allows for enhanced eye surgery, but there could be great controversy if they allow a surgically enhanced swing where a golfer's drive is lengthened by fifty yards. The possibilities seem endless. A marksman could be given 20/10 vision or an athlete could be given a brain implant to stimulate the brain through cybernetic connections to speed up brain processes. This capability is external to the athlete, not inherent or already there prior to the surgery. It greatly extends the potential of the athlete.

THREE OPTIONS: TRANSHUMANISM/POSTHUMANISM, PRAGMATISM, OR ESSENTIALISM

In order to attempt to broach the ethical issues, one must first ask what a human being is and whether that has a consequence on the ethics of this type of surgery. There seem to be three options to choose from. The first option would be to let the harness go and accept the premises of transhumanism and the resulting developments. The move into a postmodern age combined with the technological advances in surgery comfortably fit this view. Transhumanism, originally coined by Julian Huxley, is the belief that life enhancing technology can aid humans to develop to higher levels of being. Transhumanists believe in seeking to become more than human by accelerating and improving the evolution of intelligent life beyond its current form. It rejects the notion of an immutable human nature and is akin to the "das man" in Heidegger where humans are undefined. A transhuman is a human in transition. Human nature is "a work in progress... that we can learn to remold in desirable ways" to create superior beings. It leaves the defining of human nature up to humans. It affirms that

traditional humanism has run its course; it was restricted by the enlightenment characterization of human nature. Transhumanism casts those restrictions aside. It is also inseparable from posthuman, the term used to refer to what humans could become if these limitations are removed. Literary scholar Ihab Hassan says that: "Five hundred years of humanism may be coming to an end as humanism transforms itself into something that we must call post-humanism." Andy Miah has noted that: "What is considered deficient or normal today may be deemed as preventable or subnormal tomorrow." His optimism is expressed in the following: "Perhaps the most effective example to reflect this is death. Whereas death might be construed as an inevitability of life at present, in a future where life extension is possible, it might be deemed as a disease that should be cured or postponed."

Should humans augment or enhance themselves and future generations? Transhumanists observe they have always done so. The use of glasses or contact lenses to correct vision is an example of commonly employed augmentation. Up to this point this intervention has only been correcting a deficiency, returning the individual's function to species-normal levels. It is thus a healing intervention more than an enhancement. What becomes problematic is when the enhancement in question exceeds the function that could be achieved by the finest specimens of humanity trained in the most rigorous fashion. But it is no problem for the transhumanist. Transhumanism becomes part of the discussion at the point where the procedure is no longer therapeutic. But when is an elective surgical procedure enhancing or therapeutic? Miah argues that though the cure/enhancement distinction is obvious to some it may not always be a clear distinction. He says: "Medical technologies perpetuate transhumanist ideals only insofar as they utilize new technology with the aim of repairing humans, rather than enhancing them. Medicine has been premised upon restoration, rather than the creation of new levels of human capability through such repair." But from the transhumanist perspective it is too difficult to distinguish when a technology is repairing a person and when it is enhancing them. This rightly occurs when there is no clearly defined human being or norm. Without a clear understanding of human nature, a defect or an enhancement becomes difficult to define or to distinguish. Transhumanists reject the challenge of being unnatural because nothing is natural or unnatural; any technology humans use could be part of this charge. Normal becomes nonsense. If there is no consensus to defining humanity then any augmentation seems permitted for the sake of competition.

The death of God is a Western notion followed by the death of traditional views of human nature, including humanism. This is accompanied by the death of the body (our traditional understanding and definition

of body). Posthumanism is inseparable from the desecularization of the human body and consciousness. The consequence is that we can be whatever we choose to be from nonsexual to even multi-sexual, from genetically engineered to surgically enhanced without boundaries. In sports humans could be completely recreated until there may become entire leagues where everyone is surgically or genetically enhanced. Transhumanism yearns to develop otherwise inaccessible realms of progress, but it is difficult to measure progress if there is no norm that one is progressing from.

Furthermore, there is a warning that if humans remain natureless and undefined, it will not remain that way. Clearly the redefiners will emerge who place little or no value on the traditional understanding of humans and who break all barriers on what a human is; consequently the barriers that remain in sport will be broken. They will redefine humans as they see fit and as they have the power to do so. All sex barriers, all surgical barriers, eventually all genetic practices would be permitted, and all hormonal or steroid boundaries would subsequently be transcended as well. This seems consistent with the transhumanist perspective. So if a kid is a good athlete who has lifted and practiced hard, futuristically one should probably get him to the surgeon for his 16th birthday and give him 20/10 vision so he can be an all-star, and while there a little rhinoplasty might make him breathe easier, even if the rest of us begin breathing harder.

In the 1940's anticipating this futuristic desire to create humans who are not really humans C. S. Lewis wrote in *The Abolition of Man*: "What we call man's power over nature turns out to be a power exercised by some men over other men with nature as its instrument." These conditioners, as he calls them "can cut out all posterity in what shape they please".¹⁵ The final conquest will "prove to be the abolition of man."¹⁶ This is an apt description of posthumansim. Humans as they have traditionally been understood are no more. Power or success will be the only means left to evaluate this activity in sport. No foundations would be left to construct limitations by which to critique and examine the moral ramifications of elective performance enhancement surgery.

A second, the pragmatic approach, would be to proceed cautiously and face each change or advancement independently and evaluate it accordingly. This is generally the current common practice with the attempt to deal with the here and now of sport and to sustain just or moral policy making while struggling to keep people from getting an unfair advantage, an advantage not available to or known by others. The pragmatist wants sports competition to be fair. She wants to maintain

the integrity of the sport. This is a commendable ambition and it would generally provide cautious, monitored change. This approach has been arguably unsuccessful. Steroid usage has been prolific, LASIK surgery has become unquestioningly accepted, and genetic engineering rushes upon us. The pragmatic approach works so slowly that many of the practices become acceptable policy before meaningful discussion or policy can become implemented. The technology moves much faster than the organizations run by pragmatists can establish workable policy. This attempt will eventually succumb to elements of posthumanism only at a slower pace than the outright embracing of them. Furthermore, because it has no foundation or guidelines, except to proceed slowly and cautiously seeking fairness, it would be like trying to stop a slow rolling snow ball and preventing it from gaining any further speed as it traverses down a mountain. It will overrun us all. This approach only delays the inevitable triumph of transhumanism. Just as new designer steroids are being created and are more difficult to detect, imagine the difficulty of tracking down and monitoring surgical enhancement. Steroids, genetic engineering and enhancement surgery would prevail and eventually all competitive athletes would be coerced to indulge in these practices and to have these surgeries in order to be able to compete on an even playing field. Athletes are not utopianists; they are pragmatists. All they care about is winning this game, winning this season, getting all the money available. Who cares if humanity is transcended or altered as long as I perform better in the short run and receive the accolades I deserve.

This leaves only one remaining option for the future of sport (the one I advocate as a minority opinion and one which will unfortunately antagonize). We must return to a historical Western essentialist view of human nature which presupposes the inherent value of humans for what they naturally are: moral creatures with intrinsic value, dignity and worth. Humans need definition. The essentialist view is that there really is a human nature independent of our beliefs. This would include the view of the body as sacred. Once this redefinition is in place, there can be standards and guidelines drawn which exhibit a working and guiding definition of human nature. Surgeries and augmentations which are consistent with this view of humans and protect fair play could then be permitted and ones which dehumanize the athlete, place her at risk or make the opponent vulnerable would be banned. This can occur only if we can define what is natural and what is unnatural linked to an essential definition of human nature. The unnatural argument fails when we can not define the natural. Once human nature is defined, then we can know what it means to distort the human. Enhancements which seek to tran-

¹⁵ Lewis, p. 73.

¹⁶ Lewis, p. 77.

scend our normal capabilities can be accepted as they optimize performance within the ordinary constraints of human nature and maintain the nature of competitive human sports. Therapeutic surgery would be consistent, but surgeries for other purposes would be called into question. This provides a basis to regulate sport. I believe this to be the only hope for the future of good competition among humans.

CONCLUSIONS

1. Arguably a constructed definition of human nature is inadequate. We must presuppose and restore a concrete definition of human nature which defines the human with inherent dignity and the body as valuable. If we do not, we face the risk of humans being defined by anyone (the transhumanists or other technocrats) in any way they see fit and at great cost to our humanity. We will not remain undefined. The question is who will be the definers. With a workable definition of humanity one can proceed to make distinctions between surgical procedures that are therapeutic and those that are enhancing. When we alter our bodies with stronger components, we must ask what the effect or cost to our humanity is. Sport must be humanizing but in order to be so we must know what humanizing is.
2. As with all enhancements, surgeries which alter the nature of the contest or create an uneven playing field or unfair advantage or coerce others to follow suit with risky surgeries should be denied. Surgical alterations seem analogous to equipment changes. Are there limits to equipment? Of course, and as with equipment changes, surgery is a tool that must be carefully examined and used. The risk of harm must be considered. Surgeries which have a substantial element of risk, as opposed to those with little or no threat, should be prohibited for performance enhancement purposes. Not only does the athlete put self at risk but it coerces other competitors to undergo the same risky surgery in order to compete.
3. The governing organizations must be proactive and set standards (analogous to what they do about equipment) that should be enforced. They should limit the aid that an optional surgery can have to benefit performance. Bostrom argues this proactive approach to policy is needed. The distinction between therapeutic and enhancement surgery must be made by these organizations to maintain the integrity of a just enhancement. For example, baseball could agree to allow those who have had LASIK surgery if it gives them 20/15 eyesight, but those with

20/10 could be banned. Many may disagree with the IOC permitting transsexuals to compete, but at least they have researched the issue, created a two year period of hormone therapy in order to attempt to set up a level playing field, and have been willing to establish a clear policy statement. Most governing bodies have not. True connoisseurs of sport should be bothered when excellence is achieved through surgery or advanced medicine and not due to natural abilities or training. Maybe baseball officials should require all pitchers who have Tommy John surgery to demonstrate that they haven't artificially increased their velocity. It will not be long before baseball has someone reach the highest professional ranks after having some kind of experimental procedure first.¹⁷ What if pitching velocity is increased 20 mph due to an operation creating a bionic arm? LASIK surgery for enhancement is not banned by the World Anti-Doping Agency, but what if it leads to better than perfect vision and it makes you better than you ever were before, better than you ever could be without the procedure? What if eye surgery could actually give one the zoom capacity sight of Lee Majors in the \$6 million dollar man? Andy Miah has written: "When a modification places an athlete over and above their natural level of functioning or some species-typical level of functioning, this constitutes doping and is considered to be unacceptable because it provides an enhancement of the natural."¹⁸

4. Discussion should continue on whether surgeries should be prohibited if they reduce the quality of life apart from the competitive arena. Should we permit the seeking of short term happiness while risking the danger of long term suffering? One reason for the ban on steroids is that it affects the quality of life outside of the sport. Is the purpose to make life "happier" in the sense of living a more meaningful, better existence or is the purpose simply to perform better in a competitive athletic environment? Athletes of today seem willing to lose sight of the bigger picture of life in order to pay any price for the short term benefit. Side effects of surgery which reduce the quality of life should be part of further discussion and policy making.

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¹⁷ Johnson, p. 2.

¹⁸ Andy Miah, "The beam in your eye LASIK", Blog site created by Miah.

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**ELEKTIVNÍ CHIRURGICKÉ ZVYŠOVÁNÍ
VÝKONU U ATLETŮ:
MĚLI BYCHOM SE MU BRÁNIT?
(Souhrn anglického textu)**

Následující článek popisuje některé chirurgické zákroky, které se používají za účelem zvyšování sportovního výkonu, a přináší diskusi o některých možných zákrocích, které by mohly být pro tyto účely používány v budoucnosti. U mnoha atletů ve sportovních odvětvích, ve kterých je zásadním předpokladem úspěchu zrak, se provádějí elektivní oční chirurgické zákroky. Vystává tím etická otázka, zda je morálně přijatelné provádět zákroky za účelem rozvoje schopností, které přesahují normu, jako je například přesnost zraku 20/10. Nezbytná jsou kritéria pro stanovení morálnosti těchto zákroků, zvláště pak pokud je chirurgický zákrok

volitelný, který není motivován terapeutickými potřebami, nýbrž snahou zvýšit výkon a vytvořit schopnosti přesahující normu. Jednou věcí je podstoupit korektivní chirurgický zákrok pro vlastní pohodlí nebo za účelem zpomalení postupu zhoršování, naprosto jinou věcí je pak tento zákrok za účelem dosažení dokonalého zraku jako je 20/10.

Přijmeme-li tento spíše neškodný oční chirurgický zákrok a uvážíme-li pokroky v oblasti minimálně invazivních chirurgických metod, přísná opatření proti používání steroidů a stále rostoucí finanční impulsy pro sportovce, je pouze otázkou času, kdy už půjde o to, aby sportovci podstupovali elektivní chirurgické zákroky za tím účelem, aby se stali většími, silnějšími nebo rychlejšími. Elektivní chirurgie se v oblasti zvyšování výkonu rozšíří. Vystává tím množství morálních problémů, a proto musíme seriózně začít hledat kritéria, pomocí nichž bude možno morálnost tohoto typu elektivní chirurgie posuzovat, a povzbuzovat sportovní instituce, aby proaktivně vytvářely příslušné strategie. Konečně je zde diskuse o tom, zda lze řešení hledat v transhumanismu, v pragmatickém přístupu nebo v návratu k esencialistickému pohledu na lidskou povahu.

Klíčová slova: zvyšování sportovního výkonu, ergogenní pomůcky, elektivní chirurgie, doping.

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