



## TRANSGENDERED AND TRANSITIONED ATHLETES IN THE SPORT SYSTEM

### BACKGROUND

This document is based on a presentation "*Transgendered and Transitioned Athletes in Our Sport System*" made by transitioned female athlete Kristen Worley to staff of Sport Canada and other sport leaders in Ottawa in October, 2005. As a result of the interest generated by that presentation, Athletes CAN organized a half-day workshop for sport leaders on the topic "*Respecting Differences: Making Sport Inclusive*" in January, 2006.

Following that second workshop, an interest was expressed in pulling together this information into a short document for mission staff, and in particular medical staff, supporting Canadian teams at upcoming international games.

This document summarizes the content of the October 2005 presentation by Kristen Worley and provides some general background information on gender terms, gender dysphoria, the process of gender transition, the impacts of transition on athletes, issues arising from the IOC's policies relating to gender identity, and some thoughts about Canada moving forward on this subject.

### GENDER TERMS

**Sex** is usually understood to mean the presence of genitalia (phenotype) and the presence of gonads (testes or ovaries), which will determine reproductive function. Usually, sex, gender identity and gender role are aligned with each other and with the underlying chromosomal patterns of 46 XX for a female and 46 XY for a male.

**Gender** or **gender identity** is the psychological identification within the brain as male or female, that is the recognition of oneself and the desire to be regarded by others as fitting into the social categories of boy/man or girl/woman. These social categories generate expectations of gender roles, or how we are expected to behave in society.

**LGBT** is an acronym term used to refer to lesbian, gay, bisexual and transgendered persons. There are significant differences among these four groups, and particularly between the GLB and the T portions. Transgender identity, which has to do with gender identity, is distinctly different from gay, lesbian and bisexual identity, which have to do with sexual orientation. In other words, transgenders are not necessarily gay or lesbian.

**Intersexed** – also called hermaphroditism, is a general term used for a variety of conditions in which a person is born with a reproductive or sexual anatomy that does not fit the typical definitions of female or male. An intersexed person will have both XX and XY chromosomes. 1:1,666 children are born intersexed.

**Androgen Insensitivity Syndrome (AIS)** is a condition that affects sexual development before birth and during puberty. People with this condition are genetically male, with XY chromosomes, however, as a foetus their bodies are unable to respond to the androgen hormone and as a result they have mostly female characteristics. 1:1,300 children are born with AIS.

**Klinefelter's Syndrome** – this condition typically affects males and involves the body having three chromosomes (XXY). Although anatomically male, at puberty the body matures with female characteristics due to release of estrogen. Young males with this condition develop breasts, do not grow facial hair, gain weight and may become lethargic. 1:1,000 children are born with Klinefelter's Syndrome.

**Gender Dysphoria** - Gender dysphoria describes the intense and continuous discomfort a person feels when their physical sex and gender identity are not aligned. Not all people experiencing gender dysphoria seek treatment. Long before they consider medical treatment, in fact often long before they even realize what is happening within them, most gender dysphoric people will show signs of thinking and behaving in ways more usual to the sex opposite to that of their physical appearance. Because of social pressures, many gender dysphoric people enter a period of denial in their late teens, in which they try to suppress any thoughts or feelings to do with their gender identity. Gender dysphoric people suffer distress and impairment from societal intolerance, discrimination, violence, shame, and denial of personal freedoms that ordinary men and women take for granted. 1:500 children are born with gender dysphoria.

**Transgendered** – an umbrella term used to describe an array of persons whose gender identity does not conform to stereotypical norms of female or male. 12 percent of all transgendered people pursue transition through complete surgical intervention.

## THE TRANSITION PROCESS

Persons experiencing gender dysphoria who choose to align their gender role and gender identity are referred to as **transitioned**. A transitioned female is a person who was born male but has become female, while a transitioned male is a person who was born female and has become male.

Transitioned individuals undergo hormonal treatment, surgery and possibly other body modifications so that they may live their lives fully as either a woman or a man. Transition is said to occur in two categories: the physical and psychological transition from one sex to the other, and the social transition with family, friends, education, community and career.

These are some of the physical changes that occur in the male to female transitioner:

- Effects of hormones vary greatly from person to person, but noticeable effects occur within 2 to 3 months, and these are irreversible in as little as 6 months.
- Development of breasts (will usually be smaller than those of close female relatives)
- Softening of skin tissue
- Redistribution of body and facial fat. Over the long term fat will migrate away from the waist and be re-deposited at the hips and buttocks giving a more feminine figure.
- The face will become more feminine, with fuller cheeks and less angularity.
- Body hair growth reduces and body hair may lighten in both texture and colour. However, there is seldom any major effect on facial hair.
- Scalp hair often improves in texture and thickness, and male pattern baldness generally stops progressing.
- Lack of testosterone diminishes drive and motivation, as well as metabolic function and the ability to thermo-regulate, all of which adversely impact athletic performance.
- Medically forced premature menopause.

- Due to estrogen administration, the pituitary gland functions continuously at a high level, preparing the body for conception: thus the transitioned female continually experiences the hormonal impact that menstruating women experience only during their periods.
- Many people report sensory and emotional changes: heightened senses of touch and smell are common, along with generally feeling more 'emotional'.

Female transitioners have unique long-term health concerns arising from the regular administration of estrogen including: weight gain, breast cancer, blood clotting, risk of heart attack and stroke, and depression.

These are some of the physical changes that occur in the female to male transitioner:

- Effects of the testosterone hormones is quite rapid, and thickening of the vocal cords and hair appears in as little as 2 weeks. A permanent deepening of the voice occurs within four months and is irreversible.
- There is some breast atrophy, but at the early stage of transition it is more common to bind the breasts.
- Menstruation ceases within a few months.
- Permanent clitoral enlargement occurs.
- There will be increased strength and weight gain particularly around the waist and upper body with decreased hip fat.
- Growth of facial and body hair is likely to follow the pattern of hair growth inherent in the family.
- Increased social and sexual interest and arousability may occur, as well as heightened feelings of aggression.

## **TRANSITIONED ATHLETES AND PERFORMANCE**

It is widely assumed that transitioned females compete at an advantage over biologically-born females, although such a view is not supported by science. There is a growing body of evidence to show that transitioned females compete at a disadvantage to all other female competitors.

Transitioned women do not produce or have the means to produce testosterone during transition and after sex reconstruction surgery. Testosterone is a fundamental hormone in the bodies of both men and women and serves to regulate many body functions. Testosterone enables the body to build muscle; allows muscle recovery during and after physical activity; supports heart and lung development and recovery; supports, regulates and burns body fat; regulates weights and the immune system; and provides overall drive and energy.

Physically-born males have a testosterone level of between 64 and 96 (based on a standard blood volume scale of 100). After age 50 this declines by about 1 percent per year. Physically-born females have testosterone levels of between 9 and 16, on the same standard blood volume scale of 100. When such levels fall below 9, testosterone administration may be prescribed for health reasons. Typically, most high performance female athletes have testosterone levels higher than the range for an average female.

Transitioned women will lose 30 to 40 percent of overall muscle mass and strength during transition and after transition will have zero testosterone levels. Due to such low levels, transitioned women lose the ability to develop new muscle and have tremendous difficulty sustaining existing muscle no matter the level of output or intensity of training. They also lose the ability to recover quickly during and after exercise. Their bodies lose the ability to burn and lose fat, and even with adequate exercise, weight control becomes a significant concern.

It is now acknowledged that studies linking gender transition and athletic performance are lacking, and that many of these widely-held assumptions, supported by the views of the IOC Medical Commission, are not supported by the science.

## **IOC POLICIES ON GENDER**

Sex testing was introduced at the 1966 European Athletics Championships in Budapest after allegations that some women competitors were technically male. Initially such testing consisted of a visual examination of athletes while naked, while later procedures were based on hair samples and DNA testing of mouth swabs. These tests attracted much criticism and were considered to be intrusive and discriminatory. Often, such tests would reveal the existence of Androgen Insensitivity Syndrome (AIS) or other atypical gender conditions, resulting in public embarrassment and ridicule for the athlete. Many times these athletes chose to leave the competition, faking an injury, rather than face such public scrutiny. The IOC and major international sport federations continued sex testing until 1999, when it was discontinued.

In May 2004, the IOC published the Stockholm Consensus, a policy statement setting out the conditions under which individuals would be permitted to compete athletically in a sex different from their birth sex. Lacking education and awareness of gender transition issues, the global sport community has widely accepted this document, despite its flaws, as the best available guide for determining the eligibility of transitioned individuals to participate in sport.

The Stockholm Consensus permits athletes to compete in their transitioned sex if they meet several strict conditions, including having had anatomical surgery with external genitalia changes, being able to verify through medical records a course of hormonal treatment of prescribed length, and having been legally recognized as their transitioned sex. As well, all athletes are required to undergo a case-by-case medical evaluation.

In recent months however, the Stockholm Consensus has come under closer scrutiny. The December 2005 issue of *The Lancet* has acknowledged that there are very few studies specific to gender transition and athletic performance, and that the Consensus was arrived at on the basis of a limited number of studies. As noted in this document, there is also a growing body of information to suggest that the competitive advantages that a transitioned female athlete is assumed to have in comparison to a physically-born female may not exist, and in fact, that transitioned females are competing at a decisive disadvantage.

There is an emerging concern that the Stockholm Consensus, in its entirety, is not only discriminatory towards individuals who undergo sex reassignment, it also places a significant burden on both the transitioned athlete and the sport organization. Further, the Consensus does not address the concerns of transitioned males, the majority of whom will not undergo anatomical surgery due to its expense and complexity.

## **MOVING FORWARD**

Recently in Canada, the sports of Cycling and Waterski/Wakeboard have gone through the process of reinstating a transitioned female athlete. From this experience have emerged concerns about the validity of the Stockholm Consensus. Following the Athletes CAN workshop, a small group of leaders within the Canadian sport system has begun work to develop a uniform policy to guide Canadian sport federations dealing with this issue.

It is hoped that Canada might take a leadership role in the global sport community to develop strong, well-informed sport policy to ensure a balanced, educational and safe approach to integrating transitioned women and men into all levels of sport, nationally and internationally.