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CANADIAN SPORT FOR LIFE

The Female Athlete Perspective

Female participants in regular physical activity, recreational sport and elite competition have greatly increased in the last 30 years. For example, the percentage of female athletes in the Olympic Games doubled between 1976 and 2008.

Intrinsic biological differences between the sexes have stimulated increased research examining the effects of exercise on females. We now have a better understanding of how to make training programs a better fit for them.

Due to higher participation rates, the prevalence of injury has also increased. For example, females will incur 2-6 times the number of anterior cruciate ligament (ACL) injuries compared to men when matched for age, sport and level of competition. Some factors leading to increased risk in female athletes are changeable (e.g. technique, strength, footwear, training surface, etc.) while other factors are not changeable (biological status e.g. hormonal levels and anatomical factors). The most common noncontact ACL injury occurs during deceleration when the athlete changes direction or lands from a jump.

The shoulder is another site of injury concern for female athletes. Sports that demand repetitive overhead activity (e.g. baseball, softball, tennis, swimming, volleyball) may result in maladaptation of the shoulder musculature.

In tennis, 53% of girls report more than one tennis-related injury (low back pain, shoulder and dominant wrist injury) compared to 29% for boys. Stress fractures are also more common, while rotator cuff tendonitis is often related to shoulder laxity and muscle imbalance.

The prevalence of most upper body injuries increases with time in the sport and the intensity of involvement. A growing body of literature shows the positive effects of programs focusing on position sense/balance, plyometrics, neuromuscular activation, functional training, sport-specific movement patterns, flexibility, agility and strengthening of muscle groups at multiple joints for injury prevention and improved performance.

The timing of interventions is important. Correct technical execution must be taught during the FUNdamentals (FUN) and Learn to Train (L2T) stages. During the Train to Train (T2T), Train to Compete (T2C) and Train to Win (T2W) stages, correct technique must be reinforced with the addition of strength and agility training.

Young athletes need sufficient energy through proper nutrition to support the demands of their growth in addition to meeting the energetic requirements of regular training. Increased awareness and education is required regarding eating disorders, amenorrhea and bone mineral health.

Positive eating habits must start during the Active Start and FUN stages. During L2T, T2T, T2C, and T2W, these habits must be reinforced while learning positive fuelling practices. These are particularly important during the pre-pubertal and pubertal years (L2T and T2T).

This information is largely a summary of "The Female Athlete Perspective" written by Dr. Vicki Harber and available at www.canadiansportforlife.ca