



Upper Valley
Medical Center
Premier Health Partners

UVMC Center for Sports Medicine

Your Home Town Sports Medicine Team

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What Are the Benefits of Sportsmetrics™?

By: Tiffany Rhoades, ATC, CSCS

If you have a child who is an athlete, you have probably heard the term ACL injury. You may have even heard this term more than once due to the increasing number of ACL injuries in sports, especially female sports. The ACL or anterior cruciate ligament is one of four major stabilizing ligaments of the knee. It is the ligament which connects the femur (thigh bone) and the tibia (shin bone). Its job is to prevent anterior (forward) movement of the tibia, as well as too much rotation of the tibia, especially when cutting, pivoting, and taking off or landing from a jump. Therefore, most ACL injuries occur in sports like basketball, soccer, volleyball, and gymnastics. These injuries most often occur during non contact actions, meaning the athlete is never touched by another player.

Over many years of research, it has been found that female athletes are two to ten times more likely to tear their ACL than males. Researchers have been studying this fact for years to find the reason for this statistic. There are several different theories that all seem to affect why females tear their ACL more than males. These theories include a higher angle between the hip and knee for females vs. males, hormonal effects on laxity of ligaments in females, and neuromuscular control and muscle strength being less for females than males. So, how can any of these factors be changed to reduce the risk of an ACL injury in female athletes?

Since we can not change someone's anatomy or their hormones, we must change their neuromuscular control and increase their strength. By getting female athletes involved in a good strength training program and teaching them proper mechanics when taking off and landing from jumps, it is possible to significantly reduce the risk of an ACL tear and other knee injuries.

Dr. Frank Noyes and his team of athletic trainers, physical therapists, and researchers from Cincinnati Sports Medicine took ten years of research to create Sportsmetrics™, the first scientifically proven ACL injury reduction program for female athletes. This program focuses on jumping drills which teach the athlete to "preposition the entire body safely when accelerating (jumping) or decelerating (landing). The selection and progression of these exercises are designed for neuromuscular retraining proceeding from simple jumping drills (to instill correct form) to multi-directional, single-foot hops and plyometrics with an emphasis on quick turnover (to add sport-like movements). Performing maneuvers with sound mechanics decreases the likelihood of an injury, and it is also essential to maximizing sport performance. A solid foundation of strength, coordination and overall physical conditioning is required for athletes to attain their highest potential in their sport-specific skills."

The UVMC Center for Sports Medicine has several athletic trainers who have completed the Sportsmetrics™ certification process and are able to teach the program. We have been teaching the program for three years and have had great success with those athletes who have participated in the program. We offer the program on an individual basis, but can accommodate a group or team. Our current session will be held this summer at Miami East High School and will run from June 13-July 22. It will be held on Monday, Wednesday, and Friday from 9:00 a.m. to 10:00 a.m. For more information, please call the UVMC Center for Sports Medicine at 667-2614 or visit our website at www.uvmc.com. To learn more about Sportsmetrics™, you may visit www.sportsmetrics.net.

UVMC Center for Sports Medicine Summer Sports Enhancement and Injury Reduction Programs

EXPLOSIVE SPEED & POWER (ESP) Sports Enhancement Program

- For high school, college and professional athletes.
- Features the same type of off-season workouts used by elite Division I programs, utilizing Olympic lifts and core body strengthening techniques to improve power and strength.
- Proper running mechanics/ground based speed drills, plyometric jumping techniques and flexibility exercises are practiced to improve speed, agility, vertical jump and flexibility.

EXPLOSIVE SPEED & POWER JR. (ESP Jr.) Sports Enhancement Program

- For 7th and 8th graders.
- Utilizes age-appropriate strengthening activities and emphasizes education on proper form and techniques as well as injury prevention.
- Proper running mechanics/ground based speed drills, plyometric jumping techniques and flexibility exercises are practiced to improve speed, agility, vertical jump and flexibility.

SPORTSMETRICS™ Knee Injury Reduction Program

- Comprehensive training program specially designed for female athletes.
- Scientifically proven to reduce knee injuries and improve performance for sports that involve pivoting, cutting or jumping, such as soccer, basketball and volleyball.
- Combines dynamic warm-up with plyometric drills, strength training and flexibility exercises.

For more program information or to register, call 667-2614 or 440-7152.
Program information and registration forms available online at www.UVMC.com/sportsmedicine



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TEAM OF THE MONTH

The UVMC Center for Sports Medicine would like to congratulate the following teams from the area for their outstanding achievements and selection as Team of the Month this spring sports season:

April: Covington High School Softball Team

This team was selected by the Center for Sports Medicine staff for its outstanding 2011 spring season. The team was nominated for its hard work throughout the spring season. As a result, the team ended the regular season with a record of 18-4 overall and 10-1 in the Cross County Conference. In addition to winning the OHSAA Division IV Sectional and District Championships, the team also recently won the OHSAA Division IV Regional Championship and will advance to play in the Division IV State Championships in Akron.

GOOD LUCK LADY BUCS!!

May: Troy High School Girls' Track Team

The Troy High School Girls' Track Team was selected by the Center for Sports Medicine staff for its outstanding 2011 spring track season. The team was nominated by Coach Kurt Snyder for its hard work and dedication throughout the spring season. The team won the Tipp City Relays, the Troy Invitational and the Fairmont Firebird Invitational. Despite weather that canceled several meets, the team continued to prepare for the postseason. "The girls also do a fantastic job of running the junior high home meets in Troy. They even set a school record for managing the fastest junior high meet in just over two hours," said Kurt Snyder, head coach.

CONGRATULATIONS ON A SUCCESSFUL TRACK SEASON TROJANS!!