

Sportsmetrics™: Injury prevention and performance enhancement in athletics

Last month the topic was ACL ruptures in female adolescents. Studies have shown that girl athletes are 2-10 times more likely to have an ACL injury than their male counterparts. And if your daughter is gifted enough to play at the collegiate level then she has a 1 in 10 chance of a serious knee injury. The amazing thing is 70% of all these injuries are non-contact such as when landing from a jump or during turning/ twisting activities when a sudden imbalance occurs in the lower extremity. The athlete needs to be able to react instantaneously under control which requires good coordination and muscle strength or a giving-way of the knee will occur. The belief that many of the non-contact injuries are preventable is what set the stage for the Sportsmetrics™ program.

Sportsmetrics™ is the first training program scientifically proven to improve neuromuscular problems in athletes by increasing hamstring strength and teaching athletes how to land from a jump and cut/pivot in safe positions, with proper body positioning. The program was designed by Dr. Frank Noyes and has received international recognition for published studies that document the ability to reduce serious knee injuries in female athletes who train with Sportsmetrics™. Their research has been featured in the New York Times, USA Today, and the Cincinnati Enquirer, as well as on ESPN and ABC's Wide World of Sports. The training program is a six-week jump training program that meets three times per week on alternating days. Each session is approximately one and a half hours and includes the following components:

- **Dynamic Warm-up:** Prepares the body with functional based activities that use sport specific motions. It raises core body temperature, increases blood flow to the muscles, and improves flexibility, balance and coordination.
- **Plyometrics/Jump Training:** Plyometrics, the core of the Sportsmetrics™ program, are used to focus on correct jumping technique and are divided into three two week phases. Each phase has a different training focus and the exercises change accordingly. Plyometrics develops muscle control and strength that are critical for reducing the risk of knee injury and increasing jump height.
- **Speed and Agility Training:** Emphasizes body alignment and form while performing sprinting and cutting movements. The goal of speed and agility training is to condition your body and increase skill level.
- **High Intensity Strength Training:** With emphasis on body alignment and form, Sportsmetrics™ provides structured (yet adaptable) strength training guidance. This section focuses on development of core strength and improving overall muscular efficiency. This can be done with or without equipment free weights.
- **Flexibility Training:** Stretching is essential to achieve maximum muscle length, allowing muscles to work with power through complete range of motion. This is important for decreasing injury and post-training muscle soreness.

For athletes that do not have the option of training 3 days a week for six weeks, we offer Sportsmetrics™ WIPP (Warm-up for Injury Prevention and Performance.) WIPP is a specially designed warm-up that incorporates all of the above components of Sportsmetrics™. WIPP takes approximately 20 minutes and can be performed as a warm-up prior to practice and games.

Many parents, local and national, have taken an active step toward injury prevention for their child by using Sportsmetrics™ as a preseason conditioning tool or as a return-to-play program after physical therapy. One example of this is Gloria Burkhart, a freshman soccer player at Southeastern Louisiana University. She signed up for Sportsmetrics™ with hopes of conditioning herself and sharpening her agility skills before charging onto the collegiate field. With a history of knee and ankle instability, Gloria was determined to use the program to make her a stronger player and avoid injury. Now that she is playing at the collegiate level on a team with a winning record, competition is stronger, expectations are higher. Gloria feels that Sportsmetrics™ has helped her improve her agility skills and has given her knees the stability they need on the uneven surface of

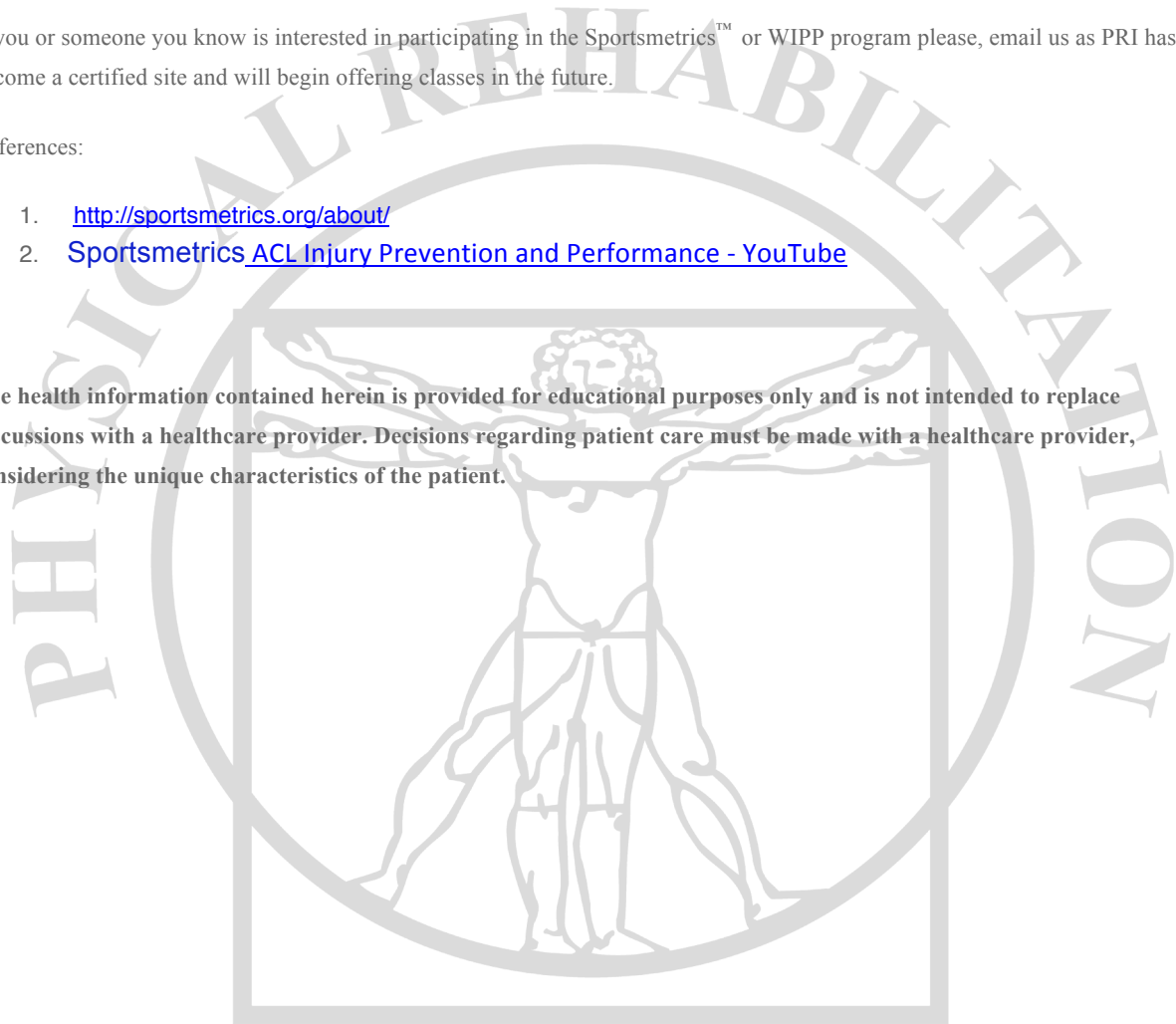
the playing field. “[Other conditioning programs] only worked with sprints and didn’t focus on technique. Technique is a huge issue.” She’s right. When you are involved in a sport plagued with injuries, technique is everything.

If you or someone you know is interested in participating in the Sportsmetrics™ or WIPP program please, email us as PRI has become a certified site and will begin offering classes in the future.

References:

1. <http://sportsmetrics.org/about/>
2. [Sportsmetrics ACL Injury Prevention and Performance - YouTube](#)

The health information contained herein is provided for educational purposes only and is not intended to replace discussions with a healthcare provider. Decisions regarding patient care must be made with a healthcare provider, considering the unique characteristics of the patient.



INSTITUTE

Stone Oak Location
19260 Stone Oak Parkway, Suite 107, San Antonio, TX 78258
210.545.9355/fax 210.545.9369

Medical Center Location
5282 Medical Drive, Suite 550, San Antonio, TX 78229
210.593.0774/fax 210.593.0707

www.mypri.net