## Women's sports injuries: It's not just the hormones

by Bend\_Weekly\_News\_Sources

Orthopaedic Surgeon Urges Women to Use Neuromuscular Training to Prevent Injuries

The long-held belief that women have more sports injuries than men because of the difference in hormones is just not true. Hormones certainly play a role according to orthopaedic surgeon Kimberly J. Templeton, MD, spokesperson for the American Academy of Orthopaedic Surgeons and Associate Professor with the University of Kansas Medical Center, Department of Orthopaedics. "There is definitely input from the hormones but there are other musculoskeletal differences between men and women."

Dr. Templeton points out how men land differently than women after taking that basketball shot. "Men flex their hips and knees when they land. Women tend to land with their hips and knees straight -- causing increased tension on the ACL. That's one of the reasons why women have more ACL ("anterior cruciate ligament") injuries than do men." Templeton points out that these types of injuries can be "career enders" to young female athletes and may lead to an increased risk of degenerative arthritis later in life, so it is critically important for girls to understand what they need to do to stay healthy. There are very specific neuromuscular training programs that have been shown to reduce the incidence of serious knee injuries. Templeton advises parents to work with their daughter's coaches -- particularly ones who understand the differences in training for girls vs. boys.

Neuromuscular training programs are now being introduced in the schools so young female athletes can learn the right way to land, among other things, and protect themselves from serious injury. According to a study conducted by Timothy E. Hewett, Ph.D., comprehensive neuromuscular training is effective in improving measures of both performance and lower extremity biomechanics in adolescent female athletes.

Dr. Templeton also underscores the importance of girls understanding bone health. There is a common misconception that a woman protects herself from osteoporosis only by engaging in weight bearing exercise. Dr. Templeton encourages her patients to participate in weight-bearing exercise and to lift weights but cautions that exercise must be balanced with enough calories and nutrition. She emphasizes that, "Engaging in weight bearing exercise without adequate calories and nutrition doesn't do anything for systemic bone mass."

Without a balanced diet with enough calories, including adequate amounts of Vitamin D and calcium, girls and women run an increased risk of injury. Templeton also helps her patients learn the right way to lift weights for to gain maximum benefit and to minimize injuries.

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