**“No Pain, No Gain” - Beneficial or Detrimental?
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In the world of sport and fitness, the expression or motto **“no pain, no gain”** is frequently used to encourage athletes to push harder, even if it means enduring pain, in order to achieve quality in their sport or profession. Without a doubt, the culture of physical fitness is built on sacrifice and self-discipline, but we must also be cautious, especially with young athletes, to use common sense when pain or injury occurs. Many young athletes are reluctant to discuss pain issues for fear of losing their chance to play, disappointing parents or coaches or even peer-pressure. In spite of pain, determination and toughness can persuade young athletes to persevere and avoid addressing an injury. It is important as adults to know what type of pain is beneficial and what type can be detrimental. Playing through pain can lead to other complications in a child or young adult’s athletic career if not properly diagnosed and treated.

Sports and exercise are undoubtedly beneficial to a healthy lifestyle and it is common at times for pain to be associated with these activities. Beneficial pain is normally caused by overused muscles and ligaments which result in the tearing of microscopic muscle fibers. However, these tears will repair themselves, the muscle will rebuild more densely with appropriate training and the pain and soreness will disappear. Athletes are taught that in order to improve their performance, some discomfort is necessary for muscle strength to increase, but the pain involved should be short-lived.

In some cases, over-exercising or pushing through pain can be detrimental. For this reason, coaches, trainers and parents need to recognize risk factors when young athletes complain of ongoing pain. A pain that lingers for a few days with no relief or becomes worse should be checked out by a physician. Constant pain is the body’s signal that a significant injury may have occurred. Some examples of detrimental pain include joint or ligament pain, muscle tears and micro fractures.

In the past 10 years, sports-related injuries in young athletes have been on the rise; approximately 10-15% of acute injuries treated in the emergency room involve sports. These injuries need to be addressed promptly before they become serious or chronic and ultimately sideline an athlete’s playing career. Untreated injuries can increase the chance that surgery will be needed to make a repair, as well as the possibility of a long-term impact on health and mobility into adulthood. Complete history and physical examination are of paramount importance and in most circumstances will identify the problem. However, often times the diagnosis can be elusive and the condition considered to be idiopathic in nature; pain of unknown cause.

In a February 2005 article by Bill Pennington, noted American journalist and sports writer for the *New York Times,* he states “around the country, doctors in pediatric sports medicine say it is as if they happened upon a new childhood disease, and the cause is the over-aggressive culture of organized sports.” While the total number of sports-related injuries is unclear because the numbers fluctuate considerably depending on the type of sport and the athlete involved, it is known that most of the injuries are related to physical trauma through contact with an opponent, hard surface or object.

In the majority of cases, sports injuries are the result of excessive stress on immature muscle-bone units; the most common are sprains, fractures, dislocations and knee injuries. A sprain is most likely to occur in the wrist, ankle or knee as a result of fibers within a muscle or tendon being overstretched; it could be moderate or severe. Knee injuries may be more complicated and involve tendonitis, bursitis, synovial impingement, meniscal injury, patellar instability, contusions and even fractures. Shoulders and fingers are the most common joints to be dislocated. All of these types of injuries, however, cannot be shielded by the umbrella of “no pain, no gain.” They are serious and require proper diagnosis and treatment.

The solution is not to push through pain, but prevent pain and injury through knowledge and education. Parents and coaches need to put more emphasis on training for sports rather than using the sport to build muscle tone. All participants should have a pre-screening physical examination prior to playing a sport. Proper gear/attire should be worn and an understanding, not only of the rules of the sport, but how to properly wear and use the athletic equipment, is necessary. Emphasis should be placed on staying hydrated and warming up before the start of play. Most important, if pain or injury does occur and it is persistent, seek medical advice immediately.Living with chronic pain certainly has no gain!

**About Dr. Aris Barbadimos**

Dr. Barbadimos specializes and is board certified in both Physical Medicine/Rehabilitation and Pain Medicine. He completed a fellowship in Sports Medicine from the University of London and has a master’s degree in Physical Therapy from Long Island University. Dr. Barbadimos is Assistant Clinical Professor, Albert Einstein University, Department of Rehabilitation Medicine; Montefiore Medical Center. He practices interventional pain medicine with Premier Medical Group as part of the Stamford Hospital Integrated Practices.