

DAMINI PHYSIOTHERAPY PATIENT INFORMATION ARTICLE #4

Overuse Injuries in Young Athletes

Young athletes these days are better protected with safety equipment in sports than ever before. This will help reduce impact injuries but will not reduce overuse injuries. In fact, one could argue that better safety equipment in some sports may lead to an increase in overuse injuries; the BMX biker that is now jumping higher due to the added feeling of safety, which will lead to greater stress to the knees upon landing.

Overuse injuries occur from the repetitive application of submaximal stress to normal tissues. There are numerous factors that can lead to overuse injuries in the young athlete.

Factors leading to overuse

It is helpful to understand some of the most important factors that may lead to these injuries. The young athlete's bones are growing faster than the surrounding muscles and tendons, which can leave the adolescent with less flexibility during a growth spurt. This loss of flexibility leads to extra stress to the attachment sites of these tendons, which are still growing and are therefore weaker, and thus lead to damage to the outer layer of bone.

The loss of flexibility can be a problem for the tendons themselves because they are going to be more taut prior to activity. This will increase the susceptibility of those tendons to tendonitis, which is where the tendons get inflamed and also can start to degenerate if not properly cared for.

Another factor that we have to consider among young athletes is muscle imbalances that can occur from being involved in sports. It is much more common these days that young athletes are spending a significant amount of time in one week dedicated to only one sport. This can lead to muscle imbalances, as certain muscles are used more than others during a particular sport. Unlike adults, a young athlete has not had years of multiple sports and have often not yet started any weight training, which both contribute to improving muscle imbalance and avoid asymmetrical strain on the bones and possibly misalignment leading to improper mechanics, which will eventually lead to early wear and tear to the body.

Preventative Measure

Ensure your young athlete is regularly performing an appropriate combination of warm up, stretch and cool down with each practice or game. If this is not occurring inquire why. If it is because the coach is not confident in this area, then seek assistance from someone who is comfortable in leading the team or instructing the coach in this process.

Cross training through either other sports or through weight lifting especially in the off season will help both even out muscle bulk to avoid muscle imbalances and prepare the tissues so that the start of the new season isn't a shock to the young athlete's body.

It is becoming much more common lately that more competitive teams are demanding a pre-screening with a physiotherapist weeks before the start of the season to address issues such as muscle imbalances, inadequate flexibility, or any other red flags that may

lead to the athlete experiencing an injury that was preventable. This sort of pre-screening has been found by many teams to increase the chance the individual will have a successful sports season. This one on one assessment of the athlete can help them concentrate on aspects of their training where they need to focus, which in turn, help avoid injuries but also improves performance. Some parents aware of this fact are beginning to seek pre-screening even when not demanded by the team.

Monitor your child and trust your gut. You as the parent may be the first to notice symptoms of your child starting to develop an overuse injury. In a young athlete many of these overuse injuries that occur can be brought under control quickly if treated appropriately and a bit of patience is employed. Knowing when to stop and seek professional help is often the largest factor in getting the young athlete back to what they love best, playing their sport at their maximum potential.

For feedback, questions and input in relation to the articles please contact Damini Physiotherapy.