



HEALTH

Jack of all trades

PLAYING DIFFERENT SPORTS CAN PREVENT YOUTH INJURIES



Being the parent of a minor sports athlete is hard.

Watching your child get hit during a game, limping to the bench, and, when the injury is bad enough, missing out on competition and time with friends is a tough pill for any parent to swallow.

One of the most common questions we hear from parents is how they can help their kids' bodies respond to the demands of sports participation and help prevent injuries.

When kids (and parents) are passionate about a sport, they live and breathe it, often training for or playing it more than four times a week during the season. Hockey, for example, finishes the winter season and quickly moves into more frequent tournaments, tryouts for the following winter (which is months away), and summer leagues, skills camps, and power skating to better develop their skills. Parents are put in an extremely tough position – they have to decide between giving their child the best opportunity to make the team next season, and risking their child falling behind if they're not participating in concentrated skill development. Is it also wrong to deny them the opportunity to be with their friends, who are all still playing?

There is no clear 'yes' or 'no' answer to these questions. There are a lot of factors to take into account, and our experience as physiotherapists suggests children benefit from diverse sport participation when it comes to preventing injuries. We tend to see an influx of young athletes at the beginning and end of their sports seasons. At the beginning of season, these injuries are usually a result of a sudden increase in training volume and intensity. These injuries tend to be the classic '-itis' (inflammatory) conditions – patellar tendonitis, from too much jumping/landing; plantar fasciitis, from too much running or a change in running surface; and rotator cuff tendonitis, from overloading one or both shoulders.

At the end of the season we see injuries that have resulted from the cumulative load of high volume and high intensity over time, coupled with a lack of recovery. These injuries tend to be your '-opathy' conditions (non-inflammatory, overuse) such as achilles tendonopathy or shin splints. These injuries can be a result of overusing the same muscle groups, either as a direct result of the demands of the sport or by compensating for weaknesses elsewhere, and under-recovery from competing in the same sport year-round without a break, or inadequate rest or nutrition, which can cause a cumulative breakdown over time.

Single sport specialization accounts for 50 per cent of overuse/under-recovery injuries in youth.

At any point in the season, we see acute injuries such as ankle sprains, fractures, and concussions, which are typically the result of a single incident or trauma. These are the injuries we often think of when it comes to sports, but it's important to note that there can be underlying factors that can predispose children to acute injuries.

SIGNS OF BURNOUT

Kids are not the same as adults for a number reasons, beyond the fact that most adults don't have tantrums about having to finish their vegetables. Physically, kids go through rapid periods of growth, which means their bones often outgrow their muscles and tendons. The soft tissues take time to adapt to this growth, and children are more prone to muscle and tendon injuries during these periods. With the considerable change in limb length, children tend to have balance deficits during the period where their muscles adapt, which can lead to more injuries related to falling or tripping.

Psychologically, kids can lack the coping strategies that we develop as we get older. They may not tolerate a hectic training schedule, late nights and early mornings, as well as an adult. They also tend to lack the language to tell their parents when they are feeling overwhelmed.

Burnout is defined as physical/emotional exhaustion, sport devaluation and reduced athletic accomplishment. Physically, this can manifest as repeated nagging injuries (under-recovery/overuse) that never seem to heal, or continual complaints of injury by the athlete. You may notice decreased participation or engagement in games and practices or increased lethargy and fatigue in day-to-day life. Younger athletes may become more prone to emotional outbursts and tantrums, especially when it comes time to go to games or practices, or when they have a bad game.



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Burnout, when suffered over a long period, tends to lead to kids dropping out of sports or being withdrawn by their parents, PLAYresulting in decreased physical activity and its consequences.

IMPROVING SPORT OUTCOMES

So what can we do to help our kids stay healthy, active and successful in sports? Research has shown that a multi-sport approach until the teenage years helps children develop fundamental movement skills, physical literacy, strength, balance and coordination. In a perfect world, every child would participate in different sports throughout the year. This allows for skills to develop across multiple domains and multiple skill sets. Even if a child is choosing to participate in one sport at a competitive or rep level, additional participation in a second or third sport during their off-season will allow their dominant muscle groups to rest and new skills to develop.

Allowing the athlete to have a planned break from sports between seasons is also helpful to reduce rates of burnout and increase physical performance.

Listen to and observe your child throughout the year. If you start to notice increased emotional outbursts, lethargy, and decreased

engagement in their sport, they may need a break or they may be overtraining.

A well-rounded recovery approach during season can help reduce overuse/under-recovery injuries, as well as support healthy habits that will carry over outside of sport. We are big advocates of the ‘100 Point Recovery System’ (see chart at bottom left). It’s very simple, you complete 100 points worth of tasks for games, and 50 points worth of tasks for practices. This is easily implemented by an entire team, or can be done at home by parents.

Finally, if you’re a parent feeling like you’re out of your depth, and your young athlete is struggling with injury or decreased performance, remember to see a specialist. Physiotherapists are trained to look at all aspects of athletic performance to help build treatment plans with athletes and their parents. Treating injuries while keeping athletes participating in their sport is our specialty and our passion.

HELPFUL TIPS

- Participation in a different sport in the off-season may help correct muscle imbalances and reduce injury – even if it is only at a recreational level.
- A post-game or post-practice recovery system implemented by parents and teams may help offset overtraining/under-recovering injuries.
- Children are not just small adults. Monitor training volume around large periods of growth and be aware of the physical and psychological signs of burnout.
- Most importantly, if the fun is gone, it’s time for a break. Sports are for developing character, building friendships and the love of the game. Never lose sight of this.

RESOURCES/REFERENCES

activeforlife.com

Is It Wise to Specialize?: What Every Parent Needs to Know About Early Sports Specialization and its Effect Upon Your Child’s Athletic Performance Kindle Edition by John O’Sullivan

Wee Warriors Pediatric Sport Medicine Webinar, College of Physiotherapists

<https://orthoinfo.aaos.org/en/diseases--conditions/overuse-injuries-in-children/> GBK

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100 Point Recovery System	
Points	Task
50	20-minute recovery bike, walk or jog
50	20-minute stretch session (10 upper, 10 lower)
30	Full, healthy meal within 1 hour of end of game (vegetables, protein and starch)
30	Protein shake (20+ grams) within 1 hour of game + 1 litre water, 50% electrolyte drink
20	15 minute foam roller/ lacrosse ball
20	15 minute meditation/ quiet time after game
20	Contrast shower (3 minutes cold, 1 minute hot, repeat 4 times)
10	Healthy meal 2-3 hours before game
10	10 hours sleep night after event
10	1-1.5 L of 50% water, 50% electrolyte drink