## Injury prevention

In recent years there has been increasing research in regards to injury prevention, more specifically, musculoskeletal injury and concussion prevention. As mentioned earlier in a previous article review, a supervised assessment by a trained professional can help identify where the athletes weaknesses or movement patterns fall apart to reduce musculoskeletal injuries. There is yet to be conclusive research on concussion prevention, however, there is valid research supporting comprehensive concussion management (previous article review).

Hislop et al. aimed to identify an exercise program/dosage to reduce injuries in youth rugby players. They developed a comprehensive exercise program specifically for rugby players but the research article references the FIFA 11+ program being utilized at least 3 times per week has been shown to increase neuromuscular control and muscle strength. The FIFA 11+ was aimed to reduce the likelihood of ACL injuries as well as other musculoskeletal injuries. The warm-up takes roughly 20 minutes but can be tailored to the athlete's needs. Incorporating general strengthening, core stabilization exercises, and plyometrics (if athlete is able to demonstrate proper mechanics) have all been shown to reduce the likelihood of musculoskeletal injuries. Hislop et al. concluded, a preventative controlled exercise program performed 3 or more times per week can reduce injury rates by roughly 72%. There has been numerous other research articles supporting core and hip strengthening in elite runners has led to more efficient running mechanics and drastically reduced injury rates.

The more your child/athlete can be moving, the better their body can adapt to varying stresses placed on them. Many injuries occur either with over training or under training.

Here at OMG Physical Therapy, we can create an exercise program which would be tailored to the individual athlete and would include, but not limited to, core and hip strengthening. Being able to set up a controlled program would help reduce the likelihood of over and undertraining which can reduce the likelihood of injury. For a more in-depth analysis of your athletes/child's mechanics with running, speed/agility, and exercise form please contact David Holte at <a href="mailto:dholte@taipt.com">dholte@taipt.com</a>.

Article title: Reducing musculoskeletal injury and concussion risk in schoolboy rugby players with a preactivity movement control exercise program: a cluster randomized controlled trial

Authors: Michael D Hislop et al. 2017.