

# Risks of overtraining



Training for sports is a balance between overload and recovery. If the physical stress placed on an athlete is greater than what they can handle, imbalances can occur, leading to “nonfunctional overreaching”, defined as overtraining syndrome (OTS). Without adequate recovery, overtraining can result in injury and/or a decrease in athletic performance.

Overtraining syndrome (OTS) is rare, but the risk of developing this condition is significantly increased in athletes that play individual sports, female athletes, and young elite athletes.

Potential triggers for OTS include:

- Increased training load without adequate recovery
- Monotony of training
- Excessive number of competitions
- Sleep disturbances
- Stressors (both personal and occupational)
- Previous illness
- Altitude exposure
- Heat injury episode

Symptoms of overtraining syndrome include: poor appetite, weight loss, sleep disturbances, reduced energy, muscular fatigue, irritability, decreased immunity, loss of coordination, headaches, nausea, increased muscle soreness, and a loss of competitive desire. More specific damage caused by overtraining, such as micro-trauma injury, affects bone, muscles, tendons, and ligaments, resulting in conditions such as tendonitis and stress fractures. Athletes training at higher levels may also be monitoring their heart rate variability at rest. A lack of resting heart rate variability can indicate overtraining because the parasympathetic (“rest and digest”) system is out of balance with your sympathetic (“fight, flight, or freeze”) nervous system.

Treatment for OTS depends on the severity of the condition and revolves around rest. In mild cases of OTS, a couple of days off from physical activity may be enough for the body to heal. In some cases, modifying exercise intensity may help to resolve symptoms - this is commonly known as relative rest. It means you are still physically active but at an intensity that allows your body to recover and heal. However, in severe cases, when there are multiple symptoms of overtraining, such as weight loss, and decreased immunity, several weeks to months of rest or relative rest may be required for symptoms to resolve.

You can prevent OTS by ensuring that you have enough rest in between workouts – at least one passive rest day per week is recommended. Cross-training can also help to prevent overtraining – for example, if you’re

a swimmer, try biking or running once or twice a week, and consider participating in yoga to increase flexibility and core strength. Additionally, proper nutrition or supplementation is necessary for optimal athletic performance and to minimize your risk of overtraining.

If you're a competitive athlete, or if you're just starting a new physical activity, you may benefit from physiotherapy, which will involve an individualized treatment plan that is tailored specifically to your training needs. Additionally, your physiotherapist can educate you on the risks of overtraining, and the symptoms of overtraining so that you can identify the condition early and minimize the risk of further damage. You will work with your physiotherapist to set goals and track your progress as you work through your treatment plan.

Undergoing a physiotherapy assessment is one of the best ways to ensure you don't overtrain. After the assessment, our physiotherapists will create a program that is specific to your needs and set you on the right path toward proper sports conditioning.

#### References

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