

Signs and Symptoms of Overtraining Syndrome in Athletes

By [Elizabeth Quinn](#) ⓘ | Medically reviewed by [a board-certified physician](#) |

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Overtraining syndrome frequently occurs in athletes who are training for competition or a specific event and train beyond the body's ability to recover. Athletes often exercise longer and harder so they can improve. But without adequate rest and recovery, these training regimens can backfire, and actually decrease performance.

Conditioning requires a balance between overload and recovery. Too much overload and/or too little recovery may result in both physical and psychological symptoms of [overtraining](#) syndrome.

Signs and Symptoms

These are common warning signs of overtraining syndrome:

- Washed-out feeling, tired, drained, lack of energy
- Mild leg soreness, general aches, and pains
- Pain in muscles and joints
- Sudden drop in performance
- Insomnia
- Headaches
- [Decreased immunity](#) (increased number of colds, and sore throats)
- Decrease in training capacity/intensity

- Moodiness and irritability
- Depression
- Loss of enthusiasm for the sport
- Decreased appetite
- Increased incidence of injuries.
- A compulsive need to exercise

Self-Diagnosis

There are several ways you can objectively measure some signs of overtraining. One is by documenting your heart rates over time. Track your aerobic heart rate at specific exercise intensities and speed throughout your training and write it down. If your pace starts to slow, your resting heart rate increases and you experience other symptoms, you may be heading into overtraining syndrome.

Track your resting heart rate each morning. Any marked increase from the norm may indicate that you aren't fully recovered.

Another way to test recovery is to use something called the orthostatic heart rate test, developed by Heikki Rusko while working with cross-country skiers. To obtain this measurement:

- Lay down and rest comfortably for 10 minutes the same time each day (morning is best).
- At the end of 10 minutes, record your heart rate in beats per minute.
- Then stand up
- After 15 seconds, take a second heart rate in beats per minute.
- After 90 seconds, take a third heart rate in beats per minute.
- After 120 seconds, take a fourth heart rate in beats per minute.

Well-rested athletes will show a consistent heart rate between measurements, but Rusko found a marked increase (10 beats/minutes or more) in the 120 second-post-standing measurement of athletes on the verge of overtraining.

Such a change may indicate that you have not recovered from a previous workout, are fatigued, or otherwise stressed and it may be helpful to reduce training or rest another day before performing another workout.

A training log that includes a note about how you feel each day can help you notice downward trends and decreased enthusiasm. It's important to listen to your body signals and rest when you feel tired.

You can also ask those around you if they think you are exercising too much.

While there are many proposed ways to objectively test for overtraining, the most accurate and sensitive measurements are psychological signs and symptoms and changes in an athlete's mental state. Decreased positive feelings for sports and increased negative feelings, such as depression, anger, fatigue, and irritability often appear after a few days of intensive overtraining. Studies have found increased [ratings of perceived exertion](#) during exercise after only three days of overload.

Treatment

If you suspect you are overtraining, start with the following:

- [Rest and recover](#). Reduce or stop the exercise and allow yourself a few days of rest.
- [Hydrate](#). Drink plenty of fluids and alter your diet if necessary.
- [Get a sports massage](#). This may help relax you mentally and physically.
- [Begin Cross Training](#). This often helps athletes who are overworking certain muscles or suffering from mental fatigue.

Research on overtraining syndrome shows getting adequate rest is the primary treatment plan. New evidence indicating that low levels of exercise, or [active recovery](#), during the rest period speeds recovery, and moderate exercise increases immunity.

Total recovery from overtraining can take several weeks and should include proper nutrition and stress reduction.

Prevention

It's often hard to predict overtraining because every athlete responds differently to certain training routines. It is important, however, to vary training through the year and schedule in significant rest time.

If you recognize warning signs of overtraining, it's important to objectively measure your training routine and make adjustments before you wind up sick or injured.

Sources:

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