

Overtraining Syndrome: 'Tis the Season!

It's been a great summer, and you had a prosperous season of training and racing well. But, as the shortening days herald the approaching fall running season, your body may also be showing subtle signs of its own changes. Maybe you've been feeling overly tired, achy, irritable and perhaps even burned out. To make things worse, the rest of life is affecting you with stressors in the form of time constraints, personal relationships, and work. Because of this, your performance has "hit the wall"; you just aren't improving. What is going on? It may be time to back off the usual routine. True, fatigue and soreness are normal following a series of intense workouts/races. However, if they never completely resolve, and your performance is affected, it may be something else. Constant sore muscles, sleep difficulty, and frequent illness (especially in the form of colds) may be your body telling you that it cannot cope with all of the stress; you are developing overtraining syndrome (OTS).

What is overtraining syndrome?

Simply put, too much physical training and not enough quality rest and recovery leads to compounding stress on your body. Further stressors caused by worry, fear, conflicts, etc. all compound and reach a point where your body can no longer repair itself adequately. A key feature of overtraining syndrome (OTS) is the inability to sustain intense exercise and recover for the next session. Thus, the physical, mental, and emotional symptoms of overtraining syndrome. By definition, a "syndrome" is a constellation of symptoms that characterize a certain disease or condition. While overtraining syndrome is not a disease in the truest sense, it can be a serious condition in that it may affect your entire physiology.

The body attempts to respond to all of these stressors (physical, chemical, emotional) by changing hormone levels in an attempt to adapt. In men, overtraining leads to declining levels of testosterone. The primary male sex hormone, testosterone normally begins to decline in a man's 30's. Coupled with excessive exercise and stress, testosterone levels decline further, leading to problems with motivation, fatigue, burn out, sexual performance, and even sets the stage for osteoporosis.

In women, estrogen and progesterone are secreted in lesser and unequal amounts, leading to menstrual irregularities, infertility, and frequent breast tenderness. Testosterone levels actually increase in women, leading to male-like symptoms of increased bodily hair growth and thinning hair on the head.

In both sexes, the main stress hormone cortisol initially rises, and can lead to fat deposition around the midsection, bone loss, and eventually adrenal burnout which is marked by difficulty sleeping, morning fatigue and sugar craving. Growth hormone (which is responsible for tissue repair, among other things) also declines. This is only a small sampling of some of the hormonal havoc that occurs with OTS. Many other hormone systems are negatively affected as well.

How is overtraining treated?

Initially, a period of rest is recommended; the amount of rest is related to how long symptoms have been present. Light cross training is allowed, and the rest period is also useful for addressing other sources of stress. However, if symptoms do not resolve after a solid period of rest, more specific treatment may be indicated. Dietary adjustments, certain physical therapies, and massage can help. More importantly, testing hormone levels and treating any alterations is a vital part of treatment. Specific nutritional, supplemental, and hormonal therapies can speed the recovery process, helping you get back to normal.

Can overtraining be prevented?

Yes, to an extent. Proper rest and recovery time is vital. A hard week of training should be followed by a few days of light training with a day off completely. Heavy weeks and months of training should include time for recovery so that you are well rested before important races. A training log is a good way to track progress and to watch for symptoms of overtraining.

While I have described the more extreme symptoms of overtraining, not everyone will react the same way. And, many symptoms of OTS can be caused by other conditions. The bottom line is to get evaluated if you are in doubt.

*Common Symptoms of Overtraining**

Workout Symptoms	Physical Symptoms	Non-physical Symptoms
Usual workouts feel more difficult Early fatigue during workouts Faster heart rate with less effort Decreased strength Decreased coordination Physical challenges seem too hard Decreased performance on strength, speed, or endurance testing	Persistent fatigue Ongoing muscle soreness Loss of appetite Increased aches and pains Increase in overuse injuries Frequent colds or infections	Difficulty sleeping Feelings of irritation or anger Feelings of depression Lack of motivation Fear of competition Difficulty concentrating Increased sensitivity to emotional stress

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