

WELLNESS UPDATE 2004, #2

OVERTRAINING SYNDROME

Vigorous training, followed by recovery, is a physical requirement for improving athletic performance. Overtraining syndrome occurs when an athlete pushes too hard, for too long without adequate recovery. **If an athlete consistently underperforms after two weeks of lighter training, or rest, overtraining syndrome should be suspected.** Overtraining syndrome is different from the normal fatigue that follows training in that the athlete does not recover after a few days of rest or lighter training. The symptoms of overtraining syndrome are persistent fatigue, difficulty sleeping, decreased performance, persistent muscle soreness, mood swings, weight loss, frequent illness (especially upper respiratory infections), and feeling "burnt out" or "stale." While every athlete, and sport, is different, most athletes can peak for about 4 - 8 weeks before significant recovery is required to avoid overtraining syndrome.

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COMMON SYMPTOMS OF OVERTRAINING SYNDROME

Workout Symptoms	Physical Symptoms	Nonphysical Symptoms
Usual workouts feel more difficult	Persistent fatigue	Difficulty sleeping
Early fatigue during workouts	Ongoing muscle soreness	Feelings of irritation or anger
Increased heart rate even though not working as hard	Loss of appetite	Feelings of depression
Decreased strength	Increased aches and pains	Lack of motivation
Decreased coordination	Increase in overuse injuries	Fear of competition
Physical challenges seem too hard	Frequent colds or infections	Difficulty concentrating
Decreased performance on strength, speed, or endurance testing		Increased sensitivity to emotional stress

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OVERTRENING SYNDROME VS. OVERREACHING/TAPERING

Overtraining syndrome should not be confused with overreaching. Overreaching, often referred to as tapering, is a planned period of heavy activity followed by a period of lighter training and rest. The concept behind tapering is to improve an athlete's short-term performance capacity through training and recovery. **Continuing the heavy activity period during a taper can lead to overtraining syndrome.**

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PREVENTION OF OVERTRENING SYNDROME

Preventing overtraining syndrome involves evaluating an athlete's training schedule, nutritional habits, rest habits, and other stresses in their lives.

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Training schedules should allow at least one day of rest, or lighter training, after a 5 - 6 days of heavy training. Some athletes, especially those who have reached a plateau, will push themselves to do additional training on days of rest in an attempt to improve their performance. **It must be stressed that rest and recovery are important components in a training regimen and that while light physical activity on a day off is ok, additional heavy training should not take place.**

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A healthy, balanced diet is also a factor in preventing overtraining syndrome. **An adequate intake of carbohydrates and fluids is key to maintaining energy & hydration levels.** Athletes who are training too hard, without adequate rest, cannot prevent overtraining syndrome simply by consuming additional carbohydrates and fluids.

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Teenagers need a minimum of 9 hours of sleep a night, yet the average teen gets about six - 7 hours a night! Many believe this "sleep debt" can be made up on weekends by sleeping late. Not so says the research. **Your body and brain do not adjust to lack of sleep and sleep is not an option, it's a need.** Athletes who do not get enough rest risk being effected by overtraining syndrome.

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What an athlete does in their leisure time is also important in the prevention of overtraining syndrome. **Jobs, illnesses, boyfriends or girlfriends, family situations and other emotional stressors can play a significant role in overtraining syndrome.** While it is important for athletes to be at practice, there are exceptions when it may be better for the athlete, and the team, for an athlete to take a day off.

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TREATMENT OF OVERTRAINING SYNDROME

Overtraining syndrome must be considered a serious injury, such as a broken bone, and adequate time to heal must be allowed. **A sports medicine specialist should be consulted regarding the signs and symptoms of overtraining syndrome and only a physician can diagnose overtraining syndrome. Treatment for overtraining syndrome is rest.** The longer the athlete has been overtraining, the longer the rest period needed. A 6 - 12-week rest period is typical. In extreme cases of overtraining syndrome, it may take months to years for full recovery. During part of the rest period, light cross-training may be allowed by the physician.

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Sources: "Avoid Overtraining," Medicine and Science in Sports and Exercise, 1995, Volume 27, Number 7, pp. 1063-1070; Hawley, Christopher, J. MD. "Overtraining Syndrome," The Physician and Sports Medicine, Volume 31, Number 6, June 2003; Johnson, Mary Black, PhD, ATC & Theise, Steven, M., MS. "A Review of Overtraining Syndrome - Recognizing Signs and Symptoms," Journal of Athletic Training, Volume 27, Number 4, 1992; Uusitalo, Arja, L. T. MD. "Overtraining," The Physician and Sports Medicine, Volume 29, Number 5, June 2001.