

## Boost Your Immune System With Exercise

The Gatorade Sports Science Institute has published a report on the relationship between exercise and illness, especially concerning the common cold. The level of exercise is important, however, because heavy exercise might actually suppress the immune system. We've summarized that report here so you may use exercise wisely as a weapon in your arsenal against common ailments.

While some researchers are convinced that moderate exercise can protect against illness, others feel that too much exercise can have the opposite effect. Here are the pros and cons for athletes, coaches, and trainers to consider.

### *Moderate Exercise & Colds*

Research shows that regular exercise helps the immune system in a number of ways:

- Moderate exercise can lower stress hormones, an enemy to the immune system.
- Those who exercise report suffering from fewer colds than those who don't.
- Exercising almost daily can cut the number of sick days in half over a three- to four-month period.

Even though the immune system returns to pre-exercise levels not long after exercising, each workout seems to offer the immune system a boost that could reduce the risk of infection over the long-term. The bottom line, regular moderate exercise can help prevent colds.

### *Too Much May Do Opposite*

Yes, there could be too much of a good thing when it comes to exercise and the immune system. Although moderate regular exercise can boost the immune system, heavy exertion may actually lower your resistance to illness.



Studies have shown a steep drop in immune function lasting from six hours to three days after athletes have run for two or three hours. That's because heavy exercise actually increases stress hormones. And as we mentioned earlier, high levels of stress hormones tend to dampen the immune system.

### *Reducing Your Risk*

Though athletes need to train hard for competition, that training need not increase their risk for infection. Here are a few ways to minimize the impact of stress on your immune system.

- Keep your everyday life stress to a minimum.
- Eat a well-balanced diet so you get adequate vitamins and minerals. Contrary to popular opinion, vitamins C and E do not boost the immune system.
- Get ample sleep on a regular schedule, avoiding chronic fatigue and over-training.
- Avoid rapid weight loss.
- Try not to touch your eyes and nose until you wash your hands thoroughly. This is how infections are spread.
- If you compete in the winter, get a flu shot.
- Use carbohydrate beverages before, during and after heavy training or endurance events. About one quart of carb beverage per hour of heavy exercise can raise blood sugar levels and lower stress hormones. Water alone doesn't do it.

*Summary*

Regular moderate exercise could help keep you from getting the common cold and other infections. However, heavy exercise and over-training can do the opposite – increasing stress hormones and lowering your resistance. Reduce everyday stress, eat a balanced diet, get enough sleep, and drink carbohydrate beverages when you're training hard.

*This article was edited from an article by David Neiman, Dr., P.H., director of the Human Performance Lab at Appalachian State University, Boone, NC. The Gatorade Sports Science Institute can be accessed on the web at [gssiweb.com](http://gssiweb.com).*

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