

# Stepping Up Exercise Could Help Beat The Cold Virus

by ALLISON AUBREY



Cliff Owen/AP

A jogger passes two women napping on the National Mall near the U.S. Capitol. Regular exercise may reduce the chance of getting a cold.

November 8, 2010

text size **A** **A** **A**

There's always somebody passing around a cold virus — whether it's a stranger who sneezes in the elevator or a sick colleague who lends out a pen covered in germs. But not everyone who gets exposed to a common-cold virus goes on to get sick.

"Think about a household when one person gets sick," says Ron Turner, a cold researcher at the University of Virginia. "Only about 30 percent of contacts in a household will actually develop an infection."

So, how can people cut their chances of landing in that 30 percent? Researchers say there is one

cold-fighting strategy that lots of us could take advantage of: stepping up daily exercise.

## More Exercise, Less Sickness?

The latest study to find benefit from daily exercise was published this month in the *British Journal of Sports Medicine*. Researchers recruited about 1,000 volunteers between age 18 and 85 to complete a daily log of symptoms throughout cold and flu season

"Everything from runny nose, sore throat, coughing, fever, headaches," says researcher David Nieman of Appalachian State University.

## Too Much Of A Good Thing?

[Dr. David Nieman](#), an exercise immunologist at Appalachian State University and a runner of more than 58 marathons and supermarathons, has been studying endurance athletes' immune systems for decades. He has found that the chance of marathoners getting sick after running their race is nearly six times higher than people who are equally fit.

After about 90 minutes of intense exertion, Nieman's tests on athletes show that stress hormones go up, muscle breaks down, and inflammation kicks in. "There's a window of about a half a day or day where viruses can multiply at higher rate because defenses are down," he says.

Marathoners aren't alone in this: The key, he says, is any high-intensity, unrelenting exercise. He's also

At the end of the three-month study, the researchers found that the more the participants exercised, the less they reported getting sick. Those who exercised five days a week for 20 minutes or more experienced about 40 percent fewer days of illness compared with those putting in less than one day a week of activity.

"It takes getting out most days of the week to see an actual benefit," Nieman says.

Another study conducted at the Fred Hutchinson Cancer Research Center in Seattle tracked what happens when older, sedentary women start walking five days a week, and it found similar benefits.

looked at cyclists who ride hard for three hours, three days in a row and then have high infection rates. "Humans have done manual labor for centuries, and that's what the body is used to," says Nieman. "It's only a recent phenomenon that we started going all out."

Is there any hope for endurance athletes to beat colds after races? Nieman and colleagues received funding from the U.S. Army to develop immune-boosting supplements for soldiers engaged in heavy, long battles. He's most optimistic about quercetin, a phytochemical and antioxidant found in a number of fruits and vegetables. In a [2009 study](#), Nieman gave cyclists 1000 mg of quercetin per day (plus a few other supplements) for two weeks before a race. Those athletes had significantly fewer illnesses following the race than those taking a placebo.

— Eliza Barclay

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genes may play an important role.

### Stress And Sleep Play A Role

Studies show a few other factors may play a role in cold virus susceptibility.

Part of the story seems to be sleep. A comprehensive study by Carnegie Mellon University researchers found that when people are sleeping poorly, they're significantly more likely to catch a cold.

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Researchers are not certain how exercise may help prevent colds, but Nieman theorizes that aerobic activity helps recruit a bunch of important immune cells that normally "camp out" in different places in the body, such as the spleen, bone marrow or lymph nodes.

"With exercise, these cells come out and start to recirculate through the body at a higher rate," Nieman says. "They're like the Marine Corps or Special Forces that get out there and poke holes in cells that may have viruses in them."

Researchers are not all convinced by Nieman's study. "Not that I would want to discourage anyone from exercising," says Turner, of the University of Virginia. But he says there may be other reasons that some of us are more susceptible to the common cold. For instance,

"People who slept less than 7 hours were 2.9 times more likely to get sick than people who slept 8 or more," says Sheldon Cohen, a professor of psychology at Carnegie Mellon.


The risk of getting the common cold also seems to be tied to stress. None of us can rid ourselves of all of life's little stressors, but the research suggests long durations of stress wear us down.

"Chronic, ongoing enduring problems, such as being in a bad marriage, having a lousy job are related to greater risk," Cohen says.

But if exercise, less stress and more sleep can cut your risk — even a little — they could be three more benefits of striving for a healthy lifestyle.

## comments

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**Sheryl Innerarity (sinnerarity)** wrote:

Could this possibly have something to do with the fact that Vitamin D improves immune response? Loosing fat improves Vit D metabolism, and if the study controlled for inside vs outside exercise, that might have an impact. And exercise, particularly outdoors, improves sleep by resetting melatonin secretion, increasing fatigue. But interesting work for sure.

2010-11-14 13:31

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**Brian Edmison (brian72975)** wrote:

What's a supermarathon? You mean an ultramarathon?

2010-11-14 11:51

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**Jerome Robbins (Landrew)** wrote:

More bogus health superstition. Cause and effect? People who have colds are unlikely to exercise. This is in the realm of saying men between fifteen and thirty who eat breakfast regularly are less likely to develop cancer, ignoring that this indicates a general concern for their overall health, unstressed time to eat breakfast, and the fact that if you have been up all night smoking and drinking you are less likely to eat breakfast, etc., ad infinitum. Who profits from the propagation of these quack nostrums?

2010-11-14 07:56

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**Reality Check (RealityCheckUSA)** wrote:

Things like this make me giggle. While exercise is good for you and there is evidence that those of us in reasonable shape have more active immune systems, exercise will not "beat the cold virus." To begin there is no such thing as the "cold virus." The common cold is caused by a number of rhinoviruses and adenoviruses (and a few others). There are about 150 different strains of these (I forget the exact number, but it has been 25 years since I took a course in virology). If we are exposed to one of them that we have never encountered, we will get a cold. Some are more virulent than others and the overall state of our health dictates how bad the cold will be. Once we have been infected, our immune system remembers the strain and we cannot be infected again. This is why we have colds more frequently as children and young adults, but the number of colds we get tapers off as we age. Eventually, we have been exposed to the majority of the viruses, making the likelihood of getting a cold lower.

2010-11-09 15:51

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**brian lindberg (brianlindberg)** wrote:

I'm no scientist, but I will share my experience/theories: moderate aerobic exercise, daily, improves oxygenation and circulation and metabolic rate, all in favor of overall vitality. As for stress, a sure way to come down with a cold is to become angry (is that why they call it medical marijuana?...whatever).

2010-11-09 13:51

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**Rebecca Hansbrough (spidergirl24)** wrote:

Great segment that reminds us to take care of ourselves by living a more balanced lifestyle with good old exercise, good meals and sleep. Excellent comments. Time to hit the sack.

zzzzz

2010-11-09 01:22

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**Sarah Sherriffs (SBarlow)** wrote:

I certainly enjoyed listening to this story on the air today, but I am extremely disappointed that the #1 method to prevent the spread of infection was not mentioned once. Ever heard of hand washing? As an RN I am constantly confronted with the fact that an eerily large number of adults do not perform basic hand hygiene and it is a very simple and very effective way to prevent the acquisition and spread of infection.

2010-11-09 00:58

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**John Ashworth (JohnAshworth)** wrote:

Nie job Allison. Always looking for more reasons that will motivate clients to exercise more often. Certainly, this story will help :) John

2010-11-08 22:44

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**L R (human)** wrote:

As an ACSM certified advanced health & fitness instructor (though mostly retired now), I would like to note here that the measurement of improvement is actually a bell curve. In other words, it is quite possible (and happens with obsessive types and determined Type A types especially) to OVERexercise thus triggering the immune system to work overtime to rebuild and repair tissue, et al preventing the normal fighting off of, for example, a virus. So the statement that "more is better" I find fault with.

You know there is nothing particular mysterious about this. The whole reason exercise works period is that you cause slight damage and stress to tissue and then when you rest, the immune system kicks in to repair this and the repair and subsequent tissue changes end up making for even stronger muscle and systems. If you do not rest, the body cannot go through that repair and rebuilding process most of which goes on (and goes on most effectively) during sleep. I mean, that's the purpose of sleep!

2010-11-08 20:22

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**Susan Jones (Xiousgeonz)** wrote:

I've also heard folks swear by certain breathing exercises and neti pots... so I make it a point whilst away from people to do lots of nasal exhalations (a.k.a. snot rockets) on my bicycle commute.

2010-11-08 19:19

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