

## Anticipating Laughter Boosts Mood, Immunity

By Jeanie Davis

Nov. 20, 2001 -- It's been said that laughter is the best medicine. But here's a new study showing that even looking forward to a good laugh -- simply by renting a funny video or checking out the TV comedy listings -- can be good for your health.

In the first study of its kind, researchers found that sheer anticipation of watching a funny video triggered significant mood changes, reducing levels of stress-related hormones and boosting disease-fighting immunity.

It's the "biology of hope" at work, says lead author Lee Berk, MD, assistant professor of family medicine at the University of California Irvine College of Medicine. His findings were presented at the recent Society for Neuroscience meeting.

"We believe this 'biology of hope' underlies recovery from many chronic disorders," Berk says in a press release. "Treatments that take advantage of this hope may go a long way to stimulating immune responses and hasten recovery."

Berk and his colleagues have spent years focusing on the effect that moods have on the immune system and disease. They have established the role played by laughter in the body's ability to effectively fend off viruses and bacteria and help fight chronic diseases like cancer and heart disease.

Chronic stress can profoundly depress the immune system, says Berk. He has found in previous studies that exposure to a one-hour humorous video reduced secretion of stress hormones like epinephrine and cortisol and enhanced the anti-viral and antibacterial capabilities of the body's immune system.

However, this is the first study showing that anticipating an event can also trigger stress-relieving changes.

In his study, Berk enrolled 10 men -- all around 27-years old -- and measured them for signs of stress. He also told them they would be watching a funny video in about three days. He found that in each of the men, their negative moods progressively lifted before they saw the video.

Two days before the video, mood ratings for depression dropped 51%, confusion 36%, anger 19%, fatigue 15%, and tension 9%. These ratings became increasingly dramatic immediately after watching the video; depression and anger dropped by 98%, fatigue by 87%, confusion by 75%, and tension by 61%. Each man also had more vigor -- an increase of 12% before the video and 37% afterward.

"While vigor actually shows signs of more energy and better resistance to disease, the other mood categories are known to increase stress hormone levels and reduce the effectiveness of the immune system," Berk says. "Positive anticipation of humor starts the ball rolling in a sense, in which moods begin to change in ways that help the body fight illness. We believe this shows that even anticipation can be used to help patients recover from a wide range of disorders."

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