

A LINE ON LIFE

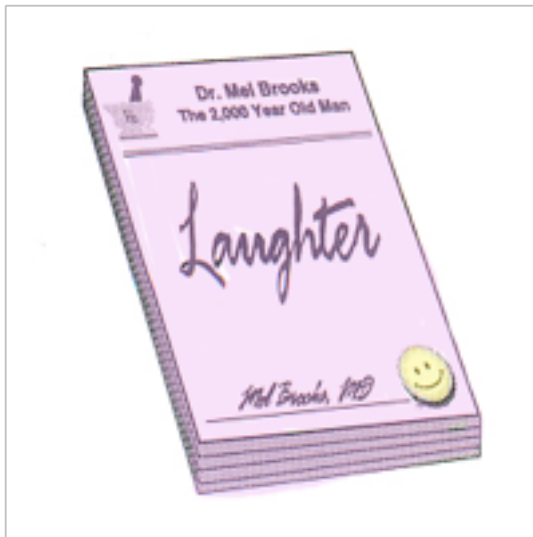
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*"Laughter is hazardous for your disease." **

David A. Gershaw, Ph.D.

Norman Cousins, *Saturday Review* editor, discusses the miraculous cure of his life-threatening disease in his book, *Anatomy of an Illness* (1979). A major portion of his treatment was **laughter**. However, this is only one case when laughter helped to cure a disease. Can it be helpful to the rest of us? Psychologists are looking for answers.

In 1990, Herbert M. Lefcourt (University of Waterloo, Ontario) published a study that used 41 undergraduate college students. First, he had them fill out a questionnaire on their typical moods, how mirthful they were, and how they used humor to combat stress. He was interested in finding out how laughter influenced the production of **salivary immunoglobulin A (S-IgA)**. S-IgA is our "...first line of defense against viral and bacterial infections."



Subjects gave a saliva sample. They watched a humorous video of Carl Reiner and Mel Brooks in *"The 2,000-Year-Old Man."* After that, they filled out a mood questionnaire again and provided another saliva sample. A control group of 12 students provided saliva samples before and after an hour lecture.

Lefcourt found that those who listened to the humorous tape had significant increase in S-IgA. Those who scored high on the sense-of-humor scales had larger increases than those with lower scores. In contrast, the control students showed no change.

More recently, Lefcourt explored the effect of laughter on **blood pressure**. Sense of humor scales were filled out by 60 male and 49 female college students. They were put through several stress tests in the laboratory — having their arms in ice water or doing repetitive math

problems — which typically raise blood pressure.

The results surprised Lefcourt. Some women had more **coping humor** — humor that helped them cope with stress. These women showed lower systolic blood pressure than women who had less coping humor. In contrast, men higher in coping humor had *higher* systolic pressure than men who were lower in that style of humor.

Lefcourt suspects that the genders use coping humor in different ways. Women are more likely to laugh at themselves. This restores social closeness. The coping humor of men is more likely used to attack others. They may be trying to keep their status in their social hierarchy. Lefcourt has a possible explanation.

"Men are in this trap of not being able to use self-directed humor as a coping strategy. That may explain why women can go through tense situations without being as subject to heart attacks, strokes and so on."

Not all people are able to effectively use coping humor. Psychologist Michelle G. Newman (Penn State University) used Lefcourt's sense of humor scales to assess the sense of humor of 80 subjects. Each was individually shown a video of a gruesome industrial accident. Half were randomly assigned to narrate the

video *seriously*, while the other half narrated the video *humorously*. Before, during and after each narration, the subject's heart rate and other measures were taken.

Regardless of their sense of humor, the subjects who created a humorous narration showed less negative emotions, less tension and less physical arousal to this horrific film. This suggests that anyone can use humor to reduce moderate stress. The humor does not need to appeal to others. In fact, Newman listened to some of the narrations and giggling of the subjects. However, their joking was not very amusing to Newman.

"It doesn't matter if you're a comedian who can make other people laugh. What matters is whether you can make yourself laugh."

As a Doctor of Public Health, Lee S. Berk (Loma Linda University, California) agrees with Newman. After starting out by studying depression, Berk switched to spend 15 years studying the effects of **eustress** (pronounced "*YOU-stress*")— positive emotional states — on physical well-being. While subjects viewed humorous videos, Berk took repeated blood samples. He found that mirthful laughter aided the immune system in several ways.

- Levels of **cortisol** — which suppresses the immune system — dropped.
- Levels of **immunoglobulins** — important infection-fighting mechanisms — increased.
- White blood cells called **killer cells** — which seek out and destroy abnormal cells — increased their activity.
- Levels of **plasma cytokine gamma interferon** — which intensify immune functioning — were doubled.
- Finally, these effects lasted well into the next day. (I don't like using all those medical terms, but you can use them to impress your physician.)

However, we don't all laugh at the same thing. Our tastes in humor differ. Some may prefer the physical humor of Laurel and Hardy. Others — turned off by this brand of humor — may prefer someone like Bill Cosby. Berk and his associates developed a software program dubbed "**SMILE**" to be used by various health care settings. It asks about 10 minutes worth of questions to inspect humor preferences, current emotional state and other factors. With this profile, various books, videos and other resources can be recommended to help that individual to laugh.

***"Laugh and the world laughs with you" —
and it's healthy too!"***

So next time you want to laugh, don't suppress it. Have a hardy laugh! If others around you complain, just tell them you are following a medical prescription!

* Adapted from Rebecca Clay's "Researchers harness the power of humor," [*The APA Monitor*](#), September, 1997, pages 1, 18.