

Seriously, researchers are trying to determine whether laughter heals

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By David Jacobson

(WebMD) -- As a veteran television executive involved in sitcoms like "Roseanne" and "Home Improvement," Sherry Hilber watched weekly as studio audiences writhed with laughter. "I'd see them leave at the end of the show and think, 'Maybe for the rest of the night something is happening inside their bodies.' "

Intrigued, Hilber boned up on the limited literature about humor's effects on physical health. She found a mixed bag of upbeat anecdotes, tantalizing small studies, and contradictory results.

Seeking to use her comedy knowledge for a larger cause, Hilber established Rx Laughter (<http://www.rxlaughter.org>), a nonprofit project dedicated both to helping the ill via humor and to supporting more scientific research on the topic. Thanks to her fund-raising efforts, researchers at the University of California, Los Angeles are set to begin exploring whether funny videos can promote healing.

Sidestepping the banana peel

The UCLA/Rx Laughter researchers hope to sidestep some of the banana peels that have tripped up previous researchers.

For instance, if comedy helps, is it laughing aloud or internal amusement that matters most? No one knows. The UCLA/Rx Laughter researchers will start by screening videos Hilber assembled for 100 elementary school children to determine what they find reliably funny.

Initially, they'll count how often each kid laughs and also ask whether they thought the video was funny, looking for correlation. (The researchers chose to focus on kids partly because they readily respond to humor and laugh more easily.)

Next, investigators will examine the nervous and immune system effects of laughter: heart rate, blood pressure and the presence of the stress hormone cortisol in saliva, before and after the funny videos.

Eventually, the researchers expect to explore whether comedy changes how kids perceive and respond to pain. Ultimately, they want to see if humor can change the kids' actual health, not just their stress hormones. For example, they may measure how fast wounds heal after surgery and how fast white blood cells rebound to their normal levels after being lowered by chemotherapy.

"You have to pass the 'so what?' test," says the study's co-director, Margaret Stuber, M.D., a UCLA professor of psychiatry and biobehavioral sciences. "It may be very interesting to us that we can change salivary cortisol, but does that actually change anything that matters?"

The concept that comedy could improve health makes some medical sense. Studies show that anger, depression, and pessimism impair the immune response, increase surgical recovery and wound-healing times, and can even contribute to higher death rates.

And what better way to counter a negative outlook than through a dose of comedy? "Humor and distressing emotion cannot occupy the same psychological space," says Steven Sultanoff, Ph.D., a clinical psychologist and president of the American Association for Therapeutic Humor.

Cousins' comedy "cure"

It was "Anatomy of an Illness," the 1979 memoir by late magazine editor Norman Cousins, that put a potential humor/health connection on the mainstream map. Cousins described how he recovered from a usually irreversible and crippling connective tissue disease with a regimen that - among other therapies -- included laughing at Marx Brothers movies.

Of course, Cousins' success by itself is no proof. And researchers seeking to put medical laughter on more solid scientific footing have faced serious obstacles -- from a shortage of funding to the fact that guinea pigs don't laugh.

Lee Berk, Dr.P.H., a pathology professor at Loma Linda University in California, is among those who have tried. In a series of studies, including one published in the December 1989 issue of the American Journal of Medical Science, he examined before-and-after blood samples from subjects who had viewed humorous videos and from a control group who had not. He found significant reductions in stress hormones and enhanced immune function -- including increased natural killer cells -- in the video-watching subjects.

But the cost and logistics of such sophisticated blood analyses limited those studies to small groups of five to ten people. Meanwhile, a Japanese study published in the June 1997 issue of the journal Perceptual and Motor Skills -- with all of eight people -- actually found a decrease in natural killer cell activity after a group viewed a comedy video.

Even research on pain relief has shown complex results: For an Israeli study, published in the November 1995 issue of the journal Pain, 20 people each watched either a funny, repulsive, or neutral flick. Before and during the films, each underwent a standard test for pain tolerance -- they had to keep one arm submerged in a tank of icy water and rate the discomfort. Humor clearly helped (though repulsion actually increased pain tolerance most).

The same researchers later found comedy videos worked best when "taken" a half-hour before pain testing and with at least a 45-minute "dosage."

While it will be several years before the UCLA study delivers its first medical punch lines, it has already solved a key riddle: Who will pay to see whether laughter really is, if not the best, at least an effective medicine? After all, drug companies, which spend billions to prove medications work, have little stake in investigating laughter.

Instead, Hilber turned to Comedy Central. The television home of "South Park" will fund most of the study's initial phases with a \$75,000 grant. "If in five years' time this study can determine that comedy is good for you, we really have a marketing opportunity," says network executive Tony Fox. "(Forget) an apple a day. Watch Comedy Central instead!"