

# The Funny Thing About LAUGHTER

It's no joke: laughing may be one of nature's cleverest tricks for keeping us healthy and safe

By JEFFREY KLUGER



**G**OOD NEWS FOR CARROT TOP: JOKES DON'T HAVE TO BE FUNNY TO make people laugh. And good news for folks with tickets to a Carrot Top show: vigorously laughing even when there's nothing particularly amusing may be good for your health.

Of all the absurdly silly things human beings do, laughing ought to be among the hardest to explain. If early homo sapiens were told they were going to be loaded with behavioral software that would cause them to convulse, pant and emit loud whooping noises when amused or touched in particular ways, they would probably have held out for Human 2.0. But the fact is, laughing makes a lot of sense.

What else can so enjoyably exercise the heart and boost the mood? What else can serve so well as both a social signal and a conversational lubricant? What else can bond parents to children, siblings to one another and teach powerful lessons about staying alive in a tooth-and-claw world? Laughter may seem like little more than evolution's whoopee cushion, but if scientists studying it are right, we owe it an awful lot of thanks for some surprisingly serious things.

One thing researchers notice about laughter is that it's something we seldom do

alone. "Laughter is 30 times more frequent in social than solitary situations," says Robert Provine, psychologist and neuroscientist at the University of Maryland, Baltimore County. That's not just because it's devilishly hard to tell yourself a joke and convincingly respond, "No, no, I really hadn't heard that one before." Rather, it's because most of the time laughter is more a tool of communication than anything else.

Typically, Provine says, a laugh is what he calls social play vocalization, something we use instinctively to send disarming cues, hold a listener's attention and offer—or seek—encouragement to go on. "In conversation," he says, "speakers are often more likely to laugh than listeners."

In the course of his research, Provine has gone on discreet tours of his campus eavesdropping on the kinds of remarks speakers make before laughter occurs. Among the nonsidesplitters he has collected are "I've gotta go now," "I see your

point" and the always rib tickling "I'll see you guys later." In each case, the laughter seemed merely a bit of audible punctuation.

Whether or not what the speaker says is genuinely funny, any reciprocal laughter from the listener serves as a powerful reward pellet, reinforcing the direction of the conversation. It also flatters the speaker, which can be a potent card to play when a conversation becomes flirtatious. "Women laugh most in the presence of men they find attractive," Provine says. "Men are the leading laugh getters; women are the leading laughers."

Just why the pleasure we take in wordplay or pratfalls elicits the noise we recognize as laughter is uncertain, but Provine says it has roots in the physical play of other primates. The human ha-ha, he believes, is very similar to the simian pant-pant, something that occurs a lot when apes wrestle and chase. "Laughter is basically the sound of labored breathing," he says.

While laughing adds a level of communication to conversation, it can also create a wordless bond across a room. As much as we might dread an attack of the giggles in the middle of a poetry reading or a eulogy, it can also be a lot of subversive fun—particularly when the bug spreads to the person sitting next to you.

The infectious nature of laughter is behind the idea of the laugh track—humor's Muzak—and while canned yuks ought to have all the freshness and appeal of canned peas, they work. "Early television planted people in live audiences and they'd laugh on cue," says Lee Berk, professor of pathology and anatomy at Loma Linda University in California. "Now we have the laugh track instead."

A far easier way to get a laugh—if harder to pull off at parties—is tickling. Nearly all of us are at least a little ticklish, but far and away, the best tickle targets

are babies. Behaviorally speaking, that makes sense. If ever there was a two-way pleasure street, it's the delight a baby takes in being tickled and the joy the parent experiences in the tumble of laughter it elicits. In a relationship in which verbal conversation is necessarily at a minimum, that is a great way to make a connection.

But there's more than bonding going on when we tickle. There's learning too. It's no coincidence that the parts of the body that are most ticklish are also the most vulnerable—the stomach, the throat and the groin region where the femoral artery lies. Best to learn early that when those areas get touched, you pull away or tuck in your chin.

And best to make it a joy for parents to provide that lesson, if only to make sure that they teach it often and you learn it well.

"This may explain why we lose our taste for being tickled as we get older," says human ethologist Glenn Weisfeld of Wayne State University in Detroit. "By adulthood we've learned how to counter unwanted thrusts."

Laughter may protect us from not only predators but also disease. One of the reasons doctors prescribe exercise for their patients is that even light exertion can increase heart and respiration rate, oxygenate the system and reduce levels of stress hormones. As long ago as the 1980s,

## EXERCISE

## Learning the Yoga Way of Laughter

**S**ix in the morning is way too early for the kind of raucous guffaws that are echoing around a sports ground in central Bombay. Walkers and joggers are frowning at a group of 40 people hooting and slapping their thighs, eyeing them with the jealous disapproval that hardworking commuters reserve for all-night partyers on weekdays. But this is no carousers' dawn chorus. There are no drinks and very little talking, and most of the group will shortly be on their merry way to work. What there is, nonstop for 45 minutes, is hysterical, weeping laughter. So what's the big joke?

Actually, there's none. Dr. Madan Kataria, 45, explains that when he started his first laughter club in 1995 after reading about the medical benefits of a good giggle, he ran out of funny stories in a week. So, throwing in a few yoga



**NOW THAT'S FUNNY** Bombay women let loose with the "lion laugh," a typical laughter-club routine

stretches, he tried encouraging people to laugh for no reason. His formula for laughing yoga clubs proved infectious. There are 1,800 such clubs in India alone, and an additional 700 around the world from Finland to the Philippines. Every year on a Kataria-inspired holiday called World Laughter Day, celebrated on the first Sunday in May, 10,000 Danes gather in Copenhagen for the world's biggest mass chortle. One of the world's funniest men, British actor John Cleese, was so overwhelmed by the good humor he felt for his fellow man after a session at Kataria's club in Bombay, he called it a "force for democracy."

The physical and psychological benefits of laughter are the subject of serious scientific study, but Dr. Kataria, who practiced general medicine before taking up his laughter mission, prefers intuitive explanations: "We don't need doctors to tell us it's good for us. We know it is."

One of Kataria's students, Alka Bhatia, who volunteers her time to teach at his clubs, says laughter pulled her out of depression. "There's a lot of pressure in my job," says Bhatia, 35, a middle manager at an import-export firm. "But now if I get stressed, I just have a little laugh at my desk and forget everything."

What if you just don't feel like laughing? Kataria says there's no problem with faking it: "Your body doesn't know the difference." At his clubs, which charge no fees, instructors get the yuks rolling with a "Ho, ho, ha-ha-ha" chant or perhaps the "lion laugh," which involves sticking out your tongue and flapping your hands by your ears. "Laughter can't solve your problems," says the laughing yogi. "But it can dissolve them." It's not that great a pun. But Kataria, like a man without a care in the world, nearly laughs his big, smiley head off. —By Alex Perry/New Delhi

Berk began suspecting that a good burst of laughter might do the same.

In order to test his idea, he recruited 10 volunteers and drew three samples of their blood before they watched a one-hour comedy video. He then took another sample every 10 minutes during the video and three more after. For comedy-club owners looking for ways to get the laughs rolling, mandatory blood tests might not be the best idea, but they served Berk well. Laughter, he found, indeed appeared to turn down the spigot on stress chemicals—cortisol, the primary stress hormone, most significantly.

In a follow-up study in 2001, he tracked two groups of cardiac patients for a year after a heart attack. One group was asked to watch 30 minutes of comedy a day as an adjunct to medical therapy; the other received the medical care alone. At the end of the year, the laughing group had lower blood pressure, lower stress-hormone levels, fewer episodes of arrhythmia and, most important, fewer repeat heart attacks. “Laughter

is a form of internal jogging,” Berk says. “What a nice way to get the lungs to move and the blood to circulate.”

Provine is dubious about health claims for laughter and suggests that perhaps it’s not the act of laughing that makes us better but the situations in which the laughter occurs. “If you’re laughing in the

therapeutic-laughter group and website ([worldlaughtertour.com](http://worldlaughtertour.com)), offering training for what he calls Certified Laughter Leaders—masters of mirth who establish clubs in hospitals and nursing homes to bring patients together and get them laughing.

One of the first laughter clubs in the U.S. got started at the Bethany Nursing Home in Canton, Ohio, in 1999. Since then, Wilson estimates, 1,000 Laughter Leaders have been certified and have fanned out to make merry around the country. “The patients all just get together and laugh,” he says. “It’s a way of blowing

off steam and discharging tension.”

That, of course, can be said of almost all laughter. Something that can help you not only relax but also connect with a friend, bond with a baby and even get over what ails you is clearly one of nature’s brightest little brainstorms and not, after all, one of its little jokes. —*With reporting by Carolina Miranda and Sora Song/New York*

“Men are the leading laugh getters; women are the leading laughers.”

—ROBERT PROVINE, University of Maryland



company of friends and family, maybe it’s [the presence of] those people that’s the important intervention,” he says.

If that’s the case, laughter clubs can’t be far behind—and in fact they’re here already. Borrowing an idea from Indian physician Madan Kataria, the famed Laughing Yogi, Ohio-based psychologist and motivational speaker Steve Wilson has launched a

EXPRESSIONS

## A Smile Doesn’t Always Mean Happy

Laughter is the blunderbuss of positive social signals—loud, arresting, a little bit crude. The smile, by contrast, is a marvel of subtlety, conveying nuances of meaning so fine that we’re not even aware of them much of the time. Says Dacher Keltner, a psychologist at the University of California, Berkeley: “The word smile doesn’t characterize all the rich ways we signal positive emotions.”

He should know: the smile is Keltner’s research specialty, and he has analyzed thousands of smiling faces to untangle their complex physiology. Some of the muscles involved in smiling are under our voluntary control—the zygomaticus major, for example, which pulls the lip corners up. Tighten those, and you have what Keltner refers to as the “Pan American smile,” after the forced grins of flight attendants. It’s not necessarily phony. It’s a smile of politeness

rather than happiness. Even infants will show it when a stranger enters a room. We use these muscles, says Keltner, “to be entertaining, to dramatize. Some neat examples: the feigned smile of polite enjoyment when your boss is telling a joke you’ve heard a thousand times, or the smile when people greet each other, when they press their lips together.”

But another batch of smile muscles is generally beyond

our control. One is the orbicularis oculi, which surrounds the eye; only about 5% of people can willfully control it. “When that muscle contracts,” says Keltner, “it gives you crow’s-feet, a little gleam in your eye, raises your cheek up and impouches the lower eyelid.” Those are key features of the “Duchenne smile,” named for the 18th century French physiologist who first described it. It’s

considered the most heartfelt smile, because it is linked to feelings of happiness and activation of the left hemisphere of the brain, which is associated with positive emotions. “Young infants show it when their mom approaches,” notes Keltner. He has found that when people see a picture of a Duchenne smiler, even when it’s presented subliminally, “it makes you smile in return, and feel calmer, more relaxed.”

As part of his research, Keltner analyzed the smiles of women pictured in yearbooks dating back to 1960, then followed up with the women themselves. Amazingly, he found that, decades later, those with Duchenne smiles turned out to be happier people than the Pan Am smilers. “They got married earlier, and they are happier in their marriage, feel less stress, feel broader well-being,” Keltner says.

It isn’t the eyes, in short, that are windows onto the soul; it’s the smiles that surround them. —*By Michael D. Lemonick. Reported by Daniel Cray/Los Angeles*



**PAN AMERICAN SMILE**  
A polite, not heartfelt expression that involves mouth muscles and little else



**DUCHENNE SMILE**  
Muscles around the eyes contract involuntarily, sending a signal of genuine joy

ELIZABETH HORNBERG (2)