

A black and white photograph of a woman with short dark hair, laughing heartily with her mouth wide open and eyes closed. She is wearing a dark-colored tank top. The background is plain white.

Laughter is a funny thing:
Why did we evolve to
GIGGLE and **CAKLE** and
GUFFAW, and what
purpose does it serve besides,
well, making the world a
happier place? The surprising
story (including some
monkey business) ahead.

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YOU JUST
GOTTA

LAUGH



ou would be hard-pressed to find someone who doesn't "love to laugh," as jolly old Uncle Albert famously sang in *Mary Poppins*. After

all, the propensity to laugh has been scientifically linked to positive personality traits, such as extroversion, likability, and creativity. While more research is needed to prove that those who laugh easily and often are actually *happier* than those who don't, it is probable, suggests Robert R. Provine, a professor of psychology at the University of Maryland, Baltimore County, the author of *Curious Behavior*, and one of the foremost experts on laughter. Laughter is "the sound of play," he says. "So our brain automatically associates it with carefree interactions with friends, family, and lovers." It just makes sense, then, that "the more we laugh, the more we fill with glee," as Uncle Albert rhapsodized. And that joy doesn't have to be fleeting; laughing seems to have lasting benefits.

WHAT'S SO FUNNY?

Contrary to popular belief, the number one catalyst for laughter isn't a joke: It's interacting with another person. That's because the modern-day *ha-ha!* probably evolved as a form of communication. Our primate ancestors used a similar sound—a sort of *pant-pant*—to reassure one another that their rough-and-tumble play was all in good fun and not an attack, says Provine. Eventually, the good-natured back-and-forth became so ingrained that laughing turned into an automatic response. One of Provine's earliest experiments proved that just listening to recorded laughing could evoke fits of giggles in subjects (which is why television studios use laugh tracks on sitcoms). In fact, according to his research, you're 30 times more

likely to laugh when someone else is around than when you're by yourself. "It's highly contagious," he says.

The odds that what we typically consider "humor" (a joke, a sight gag, or a coincidence) will actually trigger laughter aren't as favorable. What's hilarious to one person may be inane or even offensive to someone else. "There is no magic formula or key for what's funny," says Scott Weems, Ph.D., a research scientist at the University of Maryland, College Park, and the author of *Ha! The Science of When We Laugh and Why*. But, in general, he says, what often makes us laugh is when our brain is expecting one thing and then, in the space of a few words, that expectation is turned on its head. "The surprise is what's funny," says Weems. As an example, he cites the classic Groucho Marx joke: "One morning I shot an elephant in my pajamas. How he got in my pajamas, I don't know." (Cue laugh track.)

Our appreciation for the unexpected starts as early as infancy, although on a very basic level.

"Parents will notice that they can elicit a giggle from their baby by making a funny face, talking in a funny voice, or playing peekaboo," says Merideth Gattis, Ph.D., a psychologist at Cardiff University, in Wales. As a child's cognitive skills develop, so does her humor. According to Gattis's research, a child as young as 19 months can understand an obvious joke: say, an adult wearing a boot on her hand instead of her foot. Six months later, she can also giggle at a goof that is signaled socially but isn't as obvious: an adult wearing a hat pulled down over her eyes instead of atop her head. (More on babies and laughter later.)

As we get older, we come to prefer—and laugh at—certain surprises over others. British

psychologist Richard Wiseman, Ph.D., the author of *Quirkology*, has revealed clear regional preferences for what we find funny. Americans often like jokes that include a sense of superiority. (Texan: "Where are you from?" Harvard grad: "I come from a place where we do not end our sentences with prepositions." Texan: "OK, where are you from, jackass?") Europeans tend to laugh at jokes that make light of anxiety-provoking topics, like marriage and illness. (A patient says, "Doctor, last night I made a Freudian slip. I was having dinner with my mother-in-law and wanted to say, 'Could you please pass the butter?' But instead I said, 'You silly cow. You have completely ruined my life.'") And Brits? Wiseman finds that they are tickled most by wordplay. (Patient: "Doctor, I've got a strawberry stuck up my bum." Doctor: "I've got some cream for that.")

Experts don't know exactly why such differences occur, but Weems suspects that "regional personalities" may have something to do with it. For instance, "Americans are encouraged to be expressive and to be themselves. It isn't terribly surprising, then, that our humor tends to be more social, even if direct or sometimes aggressive, because that is how many of our personal interactions are," says Weems.

AN ACQUIRED SKILL

Like almost any personality trait, how easily and often we laugh is a matter of genetics and upbringing. Studies on twins have shown a strong correlation between genetics and humor style (that is, how we use humor and the kinds of things that we laugh at). The specific genes that determine humor, however, remain elusive.

Laughter is an innate behavior, but it can also be influenced by those around us. Consider a 1994 study published in the journal

10
TO
40

The calories
burned
in 10 to 15
minutes of daily
laughing.

15
TO
20

The estimated
number of times
a day that
an adult laughs.

103

The ideal number
of words in a joke.



SMART SOLUTIONS FOR LAUGHING MATTERS

I shouldn't be giggling right now. How do I stop?

We've all been there: the uncontrollable fit at a piano recital, the not-so-hushed titter during an important meeting. Once you start laughing at the wrong time, it can be hard to stop, especially if someone else is chuckling along. The best tactic for putting on a straight face is obvious: "Try to imagine something sad," such as your grandmother's funeral, suggests clinical psychologist Louis R. Franzini. Only a very serious thought can distract you from the source of your laughter long enough to let you catch your breath. If nothing depressing comes to mind, use visualization of the seriousness of the setting. (For example, picture your boss scolding you for your poor behavior.) If all else fails, excuse yourself discreetly and leave the room until you've regained control.

My jokes always fall flat. Telling a joke is a skill, and as with all skills, practice makes perfect. So before your next cocktail party or work presentation, "tell the joke several times in front of friends, family, or the mirror until

you can tell it smoothly, without any pauses or fillers that interfere with the timing of the punch line," says Franzini. And if, despite your practice runs, no one laughs when you deliver the punch line, the best thing you can do is acknowledge it. "Being self-deprecating is always a safe option," says Franzini. Fill in the silence with something like "Guess I won't be trading in my sales job for stand-up." It will make the situation less uncomfortable and may even elicit a few of those laughs that you were after in the first place.

Help! I can't seem to tell a funny story without laughing.

Once again, practice makes perfect. Or at least it makes you less likely to chuckle at your own joke. "The more you hear it, the less funny you'll find it," says Franzini.

Is my blind date really laughing at my jokes or just being polite?

The laughter, whether out of nerves or hilarity, is probably genuine, says psychologist Robert R. Provine. It's hard to fake-laugh in a way that sounds authentic. Try it yourself right now. Your laugh sounds manufactured, don't you think? Also, when it comes to romance, laughter is a bit like flirting. "It suggests attraction," says Provine. "It means that the other person is trying to appear interested in you, so it's a positive step," says Franzini. While it's a good sign if a guy laughs at what you say, it's an even better one if you laugh at him. An analysis of online-dating profiles shows that "women are interested in men who make them laugh, and men are attracted to women who laugh in their presence," says Provine. The reasons are unknown, but he has a theory: "A good sense of

humor may be a measure of biological, psychological, and social fitness." In other words, getting people to laugh with you is a sign of being an alpha male—a role that men often aspire to and that women, for better or for worse, often seek in a partner.

People say that my laugh is annoying. Can I change the way it sounds?

Listening closely to your natural laugh may help you alter it. Record yourself laughing while watching a funny movie or chatting with a friend. Once you've identified what you don't like, avoid it while practicing what you want to sound like. "Listen to interviews online and find a laugh that you want to imitate," says Jennifer Thomas, a voice and speech coach at the Denver Center for the Performing Arts. Then, like an actor getting ready for a role, begin rehearsing. Practice taking long, slow breaths (especially if your natural laugh is too fast or high-pitched), and exhale into the sound of laughter. "If you practice it enough, it's possible that it can become natural and genuine," she says.



what makes these Real Simple staffers laugh?

Find out at realsimple.com/laughter.

Infant Behavior and Development that observed interactions between mothers and their children starting at birth. The more the mothers laughed, the more their children laughed, says Eva Nwokah, the chair of the department of communication and learning disorders at Our Lady of the Lake University, in San Antonio, and the lead researcher of the study. As for *why* babies laugh, even when they're too young to comprehend anything funny? Caspar Addyman, a post-doctoral research fellow at Birkbeck Babylab at the Centre for Brain and Cognitive Development at Birkbeck, University of London, believes that the behavior is somewhat similar to infant crying in that it draws adults in and results in the infant getting attention. Babies learn pretty quickly that laughing is a valuable communication tool.

Regardless of our upbringing, laughter becomes more controlled as we age. Adults rarely dissolve into the uncontrollable fits of laughter experienced in childhood. (Remember when your brother shot milk out of his nose? Or when Dad sat on that whoopee cushion?) "No doubt this is because of rigid social training," says Louis R. Franzini, Ph.D., a clinical psychologist and the author of *Just Kidding: Using Humor Effectively*. "We are taught, explicitly and implicitly, that laughter means you are immature, not serious, not focused." After all, would you vote for a presidential candidate who couldn't stop laughing during an election-year debate—or any other public appearance? This sociological bias goes way back. The philosopher Plato discouraged laughter because he thought it distracted people from important matters. Weems notes that there's a debate as to whether or not the Bible ever portrays Jesus laughing. And because men laugh less often than women do, it's possible that the pressure to keep a straight face has landed more heavily on them.

A HEALTHY HABIT

At its heartiest, laughing is a full-body exercise. It burns calories, increases your heart rate, and works a variety of muscles, from your face to your abs. It also encourages the release of feel-good brain chemicals, like dopamine. "The same pleasure sensors in the brain that are activated when we eat chocolate become active when we find something funny," says Weems. "It's a natural high." In fact, a 2003 brain-scan study published in the journal *Neuron* found that the dopamine reward centers and pathways in the brains of subjects lit up when they were treated to a funny cartoon, but not when they were shown an unfunny version.

More recently researchers have begun harnessing the therapeutic power of laughter in medical settings. At the Cancer Treatment Centers of America, patients can participate in laughter clubs, in which they are led through a series of laughing exercises aimed at relieving their physical and emotional stress and discomfort. And at 16 pediatric hospitals across the country, clowns from the Big Apple Circus visit patients one to five a days a week, delivering healing humor.

Here are four surprising ways in which laughter therapy may benefit the health of patients and plain old laughing may benefit you.

Immune function: Laughter may increase the activity of natural killer cells, the specialized cells in the immune system that destroy some cancer cells and viruses. A 2003 study published in *Alternative Therapies in Health and Medicine* measured killer-cell activity in sub-

jects before and after they watched humorous videos. "There's a boost in immune function 30 minutes to an hour after laughing," says Mary Payne Bennett, the director of the Western Kentucky University School of Nursing, in Bowling Green, and the primary author of the study.

Pain tolerance: In a 2011 study published in *Proceedings of the Royal Society B: Biological Sciences*, Robin Dunbar, a professor of evolutionary psychology at the University of Oxford, had subjects watch comedies or unhumorous documentaries and then experience discomfort (by having a tight ice-pack sleeve applied to an arm). When laughter had been elicited, pain thresholds rose significantly; when it hadn't, pain thresholds stayed the same or even decreased. Laughing, explains Dunbar, seems to stimulate the release of endorphins, chemicals that interact with brain receptors to reduce the perception of pain.

Cardiovascular health: Recent studies have also found a connection between laughter-released endorphins and heart health. When endorphins and their by-products bind to the lining of blood vessels, they activate the release of nitric oxide, says Michael Miller, M.D., the director of the Center for Preventive Cardiology at the University of Maryland Medical Center, in Baltimore. Nitric oxide, in turn, dilates blood vessels, lowers blood pressure, prevents clot formation, and reduces inflammation—all heart-protective effects.

Memory retention: According to a study on elderly patients from Loma Linda University, in California, which was presented earlier this year, those who watched a funny video that made them laugh before a memory test scored better than those who didn't. By reducing the stress hormone cortisol, which is known to damage neurons in the brain, laughter indirectly enhances a subject's ability to remember, say the study's researchers.

3,000

+

The number of Internet sites devoted to sharing lawyer jokes.

5.8

The average number of bouts of laughter in a typical 10-minute conversation.

127%

How much more a woman laughs when she is talking to a man than a man does when he is listening to a woman.



HOW TO LAUGH MORE

Even those with zero sense of humor can reap the benefits of laughter. How? Fake it. A 2002 study in *Psychological Reports* reveals that forcing yourself to laugh (or even just to smile) can improve your mood. The human brain is not able to distinguish spontaneous laughter from self-induced; therefore the corresponding health-related benefits are alleged to be alike, according to a 2010 report in *Alternative Therapies in Health and Medicine* by Ramon Mora-Ripoll, M.D., Ph.D., an advisory board member of the Laughter Online University, a supplier of online laughter education.

That's why laughter yoga, an arguably silly variation of the ancient discipline, may offer some serious benefits. Its series of breathing exercises (*ho-ho*'s from the belly, followed by *ha-ha*'s from the chest) is designed to simulate laughter and sometimes bring on authentic giggles. "It produces the same happy chemistry in the body as genuine laughter," says Jennifer Lennon, a certified laughter-yoga instructor in Boulder, Colorado.

You can also coax a laugh through make-believe play. At Ecole Catholique St-Michel, an elementary school in northern Ontario, special-education teacher Suzanne Martin uses laughter exercises to improve students' mental health and to help those who are struggling. She will ask students to pretend to be on a roller coaster and to giggle excitedly, or she will challenge them to laugh like mimes (that is, without making a sound). These exercises help the kids adopt a more positive attitude and also appear to calm anxiety. "Kids are more tolerant of each other," says Martin, "and extremely shy students are more engaged."