

Is Laughter a Form of Therapeutic Medicine?

Analysis by [Dr. Joseph Mercola](#)

October 10, 2026

STORY AT-A-GLANCE

- › In a meta-analysis of 33 randomized controlled trials, laughter therapy reduced anxiety and increased life satisfaction, giving you a natural way to calm your mind and feel more fulfilled
- › In a review of eight small interventional studies, spontaneous laughter lowered cortisol, your main stress hormone, by about one-third. This may help ease a stress response that, when chronically elevated, has been linked to weight gain, weakened immunity, and heart disease
- › Research suggests that laughter therapy may improve sleep and mood, and small clinical studies have reported lower inflammatory markers, making it a promising tool for both mental and physical well-being
- › Older adults who laugh more often are less likely to develop functional disability, and laughter programs for older adults have been linked to less depression and insomnia — findings that point to laughter as one way to support independence and resilience with age
- › You can use laughter as a daily wellness tool by scheduling daily laughter sessions, sharing humor with others, and mixing structured approaches like laughter yoga with spontaneous laughter

Laughter has always been seen as a source of joy, but it's also a powerful force for health. Unlike casual humor, laughter therapy is a structured practice that uses guided exercises to trigger laughter and, with it, measurable shifts in your body. This approach

treats laughter as more than a reaction — it becomes an intentional tool to calm your nervous system, ease tension, and strengthen emotional balance.

Anxiety is one of the most common conditions people face today, marked by racing thoughts, pounding heartbeat, muscle tightness, poor sleep, and a lingering sense of dread. Left unaddressed, anxiety has been linked to a higher risk of depression, substance use problems, and other long-term health issues. Finding simple, safe ways to break that cycle matters, and laughter is one simple, accessible option researchers have studied.

Stress physiology helps explain why this may work. Cortisol, your body's primary stress hormone, surges under pressure, and chronically elevated levels have been linked to problems like weight gain, weakened immunity, diabetes, and cardiovascular disease. By helping to calm that stress response, laughter may help restore equilibrium and support your long-term health.

Seen in this light, laughter stops being “just fun” and instead stands out as a no-cost, low-risk intervention that influences both mental and physical well-being. With this foundation in mind, the next step is to look at what researchers discovered when they put laughter therapy to the test.

Laughter Therapy Reshapes Anxiety and Life Satisfaction

In a systematic review and meta-analysis published in the *Journal of Happiness Studies*, scientists reviewed 33 randomized controlled trials involving 2,159 adults to examine whether structured **laughter therapy** could reduce anxiety and improve life satisfaction.¹ The review assessed each trial's risk of bias using the Cochrane tool and found positive effects for most types of laughter intervention, although results varied considerably from study to study.

- **Laughter therapy significantly reduced anxiety levels and boosted overall life satisfaction** — For example, adults who took part in laughter yoga sessions experienced measurable improvements compared to those who received no

intervention or usual medical care.

The meta-analysis rated the reduction in anxiety as a large effect, supported by moderate-quality evidence. In practical terms, adults receiving laughter interventions reported lower anxiety scores on standardized questionnaires than those in control groups.

- **Life satisfaction increased** — Beyond easing anxiety, laughter therapy improved satisfaction with life itself. This outcome matters because life satisfaction reflects how people judge the quality and meaning of their lives.
- **Laughter yoga showed some of the strongest benefits** — When broken down by type, laughter yoga was associated with greater benefits for reducing anxiety and increasing life satisfaction. Watching comedy videos also reduced anxiety, though with a smaller effect, while the results for humor tapes and online laughter sessions did not reach statistical significance.

Laughter Therapy Broadens Thought Patterns and Social Bonding

The featured study drew on several psychological theories to explain how laughter therapy may work. For example, Barbara Fredrickson's Broaden-and-Build Theory suggests that positive emotions like laughter expand mental flexibility, helping people see challenges in new ways.² This may lower perceived threat and reduce anxiety. At the same time, laughter can strengthen social connections, providing emotional support that may promote life satisfaction.

- **Humor may reshape coping strategies** — Richard Lazarus and Susan Folkman's Coping Theory supports the idea that laughter reframes stressful situations, making them feel less overwhelming. By laughing in the **face of stress**, people may shift their mindset from defeat to resilience, which can increase their sense of control and self-efficacy — the belief that they can handle difficult situations.

- **Biological changes may support emotional stability** — James Gross's Emotion Regulation Theory proposes that laughter acts as an emotion regulation mechanism, and the review's authors note that it induces changes in the autonomic nervous and endocrine systems that reduce stress activation. This may dampen negative emotions while encouraging positive ones. Over time, the authors suggest that repeated laughter therapy sessions may help steady mood. However, note that the review was not designed to test whether laughter prevents chronic anxiety.
- **Laughter shifts overall life evaluation** — Edward Diener's Subjective Well-being Theory ties these outcomes together by explaining that frequent positive emotions combined with fewer negative ones improve how people judge their lives. This suggests that laughter therapy may do more than provide temporary relief — it may enhance the broader perception of living a fulfilling life.

Laughter Linked to Lower Stress Hormone Levels

In a study published in PLoS One, scientists conducted a systematic review and meta-analysis of eight interventional studies involving 315 participants to determine whether spontaneous laughter reduces cortisol.³ Often labeled merely as a stress hormone, cortisol fulfills many other functions within your body. One of its key roles is to act as a vital defense mechanism, ensuring that your blood glucose levels don't plummet to hazardous lows.

It does this largely by prompting your liver to make new glucose, a process called gluconeogenesis, which raises blood glucose when your body needs it.⁴ Cortisol is released when you feel stressed or threatened, and while it's useful in short bursts, chronic high levels damage your health. The analysis revealed that laughter significantly decreased cortisol compared to usual activities in control groups, suggesting that it works as more than just a mood booster.

- **Participants were adults exposed to laughter interventions** — The studies included healthy adults, university and nursing students, people living with diabetes and obesity, and patients on hemodialysis. Five studies used comedy videos, two used

sessions led by a trained laughter therapist, and one used a self-administered laughter program. Across these groups, the research found a consistent pattern: people who laughed had lower cortisol after the intervention compared to those who did not.

- **Cortisol dropped by nearly one-third overall** — The pooled data showed that laughter **reduced cortisol** by 31.9%. That is a meaningful effect for a free, nondrug practice, though the authors rated the overall certainty of the evidence as moderate to low because the studies were small, could not be blinded, and varied in design.
- **Single laughter sessions had immediate impact** — Just one session of laughter reduced cortisol by 36.7%. This suggests you may not need weeks or months of practice to see a measurable change — your stress-hormone response can shift within a single session.
- **Cortisol reduction worked across different laughter methods** — Whether people watched comedy films or took part in sessions led by a trained laughter therapist, cortisol went down. This suggests you have flexibility in how you apply laughter as a stress management tool. What matters most may simply be finding a way to laugh that works for you.

Laughter Therapy Proposed as a Stress Buffer During a Global Crisis

As noted in a 2021 commentary published in *Current Research in Physiology*, prolonged use of pharmaceutical drugs can lead to drug tolerance or resistance, along with adverse drug events.⁵ During the COVID-19 pandemic, when stress, anxiety, and depression surged across populations, researchers emphasized the urgent need for safe, nondrug strategies. Laughter therapy was described as a universal, non-invasive, and cost-effective approach to reducing stress and anxiety without the risks tied to long-term drug use.

Surveys showed a threefold rise in depression among U.S. adults during the early months of COVID-19, with about 39% reporting psychological distress, 42% experiencing anxiety, and 39% suffering from depression. Vulnerable groups — including women, the elderly, and low-income communities — were hit hardest. Researchers warned that untreated stress could progress to serious mental illness, cardiovascular problems, obesity, and diabetes. Laughter therapy was proposed as a simple way to buffer these effects.

- **Laughter linked to lower risk of disability in the elderly** — Data from the Japan Gerontological Evaluation Study, which followed 14,233 adults aged 65 and older, showed that those who laughed rarely or never had a 1.42 times higher risk of developing functional disability after adjusting for other factors. This suggests that regular laughter goes hand in hand with staying independent and mobile with age, although an observational study like this cannot show that laughter itself is the cause. The authors noted that laughter frequency may also serve as a predictor of future functional disability.
- **Biological effects include lowering stress hormones and shifting mood-related brain chemistry** — The paper explained that laughter appears to suppress stress-related chemicals such as epinephrine, cortisol, and dopamine breakdown products, while enhancing serotonin and dopamine activity. For context, dopamine plays a central role in mood and motivation. By tipping the balance toward “anti-stress” factors, laughter may help ease anxiety and depression symptoms and support overall emotional stability.
- **Small clinical studies reported immune and hormonal changes** — Two small studies in patients with [rheumatoid arthritis](#) found that laughter was followed by lower levels of growth hormone in one study (41 women), and of the inflammatory cytokines IL-6 and TNF-alpha in the other.

Another study — an eight-week randomized controlled trial of simulated laughter therapy in patients with schizophrenia — found higher levels of brain-derived neurotrophic factor (BDNF), a protein that supports brain function, although levels

dropped once the therapy stopped, and cortisol levels did not change. These early findings suggest laughter therapy may produce measurable physiological changes across different conditions, though the studies were small and the effects were not always lasting.

- **Laughter may improve sleep and mood in older adults** — A meta-analysis of 10 randomized trials (814 adults) found that laughter and humor interventions reduced depression and anxiety and improved sleep quality. In another randomized trial in adults aged 60 and older, researchers found that a laughter program reduced anxiety and insomnia and improved general health.

Among community-dwelling seniors, a laughter therapy program in South Korea was followed by less depression and insomnia. In a Japanese study of more than 26,000 older adults, those who hardly ever laughed — especially women — were more likely to rate their health as poor than those who laughed daily. Lastly, those with **poor oral health** and fewer teeth were less likely to laugh. These findings link something as simple as laughter to broader health outcomes in older age.

- **Five categories of laughter help clarify which kinds are useful** — The paper categorized laughter into spontaneous (natural), simulated (self-induced), stimulated (tickling), induced (drug-related), and pathological (caused by brain damage). Spontaneous and simulated laughter are the two forms used in the laughter programs described above; the others are not practical wellness tools, and pathological laughter is a medical symptom. By practicing these types, people intentionally activate the body's **relaxation response** and reduce the weight of daily stress.⁶

How to Use Laughter as a Daily Wellness Tool in Your Life

Laughter is not just entertainment — it is a practical tool that can help lower stress hormones, ease anxiety, and improve how you feel about your life.⁷ If you think about it, that's exactly what you want from any wellness practice: something that works quickly, is easy to do, and can build benefits over time. As mentioned earlier, research suggests

your stress hormones can respond within a single session, so you may not have to wait months to notice a difference. That said, laughter works best as a complement to — not a replacement for — professional care if you're living with a diagnosed anxiety disorder or depression. Here are five steps to start using laughter as a wellness tool in your daily life.

- 1. Schedule daily laughter sessions** — Treat laughter like exercise. Just as you plan your workouts, block out 10 to 15 minutes a day for intentional laughter. You could join a local laughter yoga class, watch a comedy you enjoy, or even practice forced laughter, which often turns into real laughter. The key is making it a regular habit so your nervous system learns to relax consistently.
- 2. Use laughter before stressful events** — If you're facing a job interview, medical procedure, or tense conversation, prime your body by laughing first. The featured PLoS One research showed even one session dropped cortisol by more than a third, which may help put you in a calmer state of mind before the event.
- 3. Share laughter with others** — Laughter is often contagious, and sharing it adds the benefit of social connection. Invite friends, family, or coworkers into the practice. If you're a caregiver or a nursing student under stress, creating shared laughter routines can give you both relief and stronger social bonds. This not only lifts your mood but also makes tough situations easier to handle.
- 4. Reframe challenges with humor** — When problems feel overwhelming, use laughter to shift perspective. If you're dealing with ongoing stress, consciously seek humor in the situation — even if it feels forced at first. By laughing, you practice a more flexible coping style and remind yourself that you have some control. This may make you less likely to get stuck in fear or anxiety.
- 5. Mix structured and spontaneous laughter** — Different styles work, and each has its place. Use structured options like laughter yoga when you want a dependable, scheduled session that targets both mind and body. Balance that with spontaneous

laughter from funny videos or playful interactions. Your body responds to both, so give yourself permission to mix them depending on your mood and schedule.

FAQs About Laughter Therapy

Q: How does laughter therapy improve mental health?

A: A 2025 meta-analysis of 33 randomized trials, published in the Journal of Happiness Studies, found that laughter therapy lowered anxiety scores and boosted life satisfaction. Structured practices such as laughter yoga and guided humor sessions are thought to help reframe stress, regulate emotions, and strengthen social bonds in ways that may improve overall well-being.

Q: What effect does laughter have on stress hormones?

A: Research published in PLoS One shows that spontaneous laughter reduces cortisol — your body's main stress hormone — by about 32% on average across eight small studies, with a single session dropping it by nearly 37%. Because chronically elevated cortisol has been linked to strain on your heart, immune system, and metabolism, keeping your stress response in check may support your long-term health.

Q: Is laughter therapy just about feeling happier, or does it change my body?

A: It appears to change your body. Studies have reported measurable effects, including lower cortisol, reductions in inflammatory markers in small studies, better sleep, and higher levels of the brain-supporting protein, BDNF, that faded once therapy stopped. These biological shifts may help explain why laughter therapy works as more than simple entertainment.

Q: Who benefits most from laughter therapy?

A: Research has found benefits across a wide range of groups. In the 2025 meta-analysis, the largest anxiety reductions were seen among nurses and nursing students and in community settings outside health care, with smaller but consistent benefits among surgical patients. In older adults, laughing rarely has been associated with a higher risk of functional disability, and laughter programs have been linked to less depression and insomnia.

Q: How can I start using laughter as a wellness tool in daily life?

A: Treat laughter like exercise: schedule daily sessions, laugh before stressful events, share humor with others, reframe problems with humor, and mix structured approaches like laughter yoga with spontaneous laughter from comedy or playful interactions. These steps may help your body and mind build resilience over time.

This article is for informational purposes only and does not constitute medical advice. Consult a qualified health care provider before making changes to your health regimen.

Sources and References

- ^{1, 2} [Journal of Happiness Studies July 25, 2025](#)
- ³ [PLoS One 2023 May 23;18\(5\):e0286260](#)
- ⁴ [StatPearls \[Internet\], Physiology, Cortisol](#)
- ⁵ [Current Research in Physiology 2021 Apr 30;4:135-138](#)
- ⁶ [The University of North Texas Health Fort Worth](#)
- ⁷ [Mayo Clinic, Healthy Lifestyle, Stress Management](#)