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Neuroticism Isn't Funny and May Impact Your Health

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Jan. 22, 2024 – In the 1979 comedy *Manhattan*, Mary (played by Diane Keaton) tells Isaac (Woody Allen) to vent his frustrations so they can finally get their feelings out in the open. “I don’t get angry,” Isaac replies. “I grow a tumor instead.”

Allen’s characters are often neurotic, prone to excessive worry, anxiety, and stress. Hollywood has a history of playing this for laughs, but in real life, [neuroticism](#) has long been linked to poor health, and today, more science supports that link.

“There’s a lot of evidence now that personality traits are related to a whole host of health outcomes,” said psychologist [Daniel Mroczek](#), PhD, director of personality and health at Northwestern University. Neuroticism, in particular, appears problematic.

People high in [neuroticism](#) generally see the world as distressing and unsafe. They can be moody, tense, and prone to sadness.

“They tend to feel their emotions more strongly, be more reactive, and take longer to calm down,” said [Shannon Sauer-Zavala](#), PhD, a psychologist at the University of Kentucky.

The effects may go beyond a sour mood. Research suggests that neuroticism raises the risk of mental disorders such as depression and anxiety as well as physical illnesses like heart disease and [some cancers](#). Some research links neuroticism with neurodegenerative diseases such as [Alzheimer’s](#) and [Parkinson’s](#). A

recent [meta-analysis](#) suggested that neuroticism raises dementia risk, and a systematic [review](#) published last month linked facets of neuroticism with early death.

Even an affliction as mundane as a headache may affect neurotic people more: Data from the U.S., Japan, and the Netherlands shows that higher neuroticism can increase the [likelihood of headaches](#).

The Big Question

Does neuroticism cause poor health, or does poor health cause neuroticism? Suffering could certainly make people anxious, worried, and emotional. And because most of these studies are associative, they can't prove cause and effect.

But studies that assess and track healthy people over many years suggest that the personality trait leads to ill health, at least in part, said [Angelina Sutin](#), PhD, a professor of behavioral sciences and social medicine at Florida State University College of Medicine.

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One possible reason: Neurotic people often engage in unhealthy behaviors. Studies show that preschoolers who are particularly neurotic are more likely to [pick up smoking](#) in adolescence. In one study done by Sutin and her colleagues, neurotic people had a [15% higher risk](#) of stroke – a finding partly explained by an apparent penchant for smoking and sedentary behavior.

“Feeling more stress might lead people to not engage in as much physical activity or [to] eat more processed comfort foods,” Sutin said.

Aside from unhealthy coping behaviors, neurotic people may also have a stronger physical reaction to stress.

In a [2021 study](#), scientists measured levels of neuroticism in more than a thousand adults and checked how strongly each of them reacted to daily stressors. The results showed that highly neurotic people had more negative emotions whenever something didn't go their way (like missing a deadline at work). Then, when scientists looked at health data collected years later, they found that such emotionally reactive people had more chronic conditions, like ulcers and high blood pressure.

“If we're living in this chronic state of stress, that takes a toll on the body over time,” Sauer-Zavala said. A [2022 study](#) showed that neurotic people have higher levels of interleukin 6 and C-reactive protein – both markers of inflammation – and this was true regardless of physical activity, diet, or smoking. Chronic inflammation has been tied to a [range of illnesses](#), from heart disease and diabetes to autoimmune conditions (when your nervous system attacks healthy tissue) and neurodegenerative disorders (conditions that damage your nervous system).

All that stress may also mess with sleep: [Research shows](#) that people high in neuroticism may not log enough quality sleep at night and could be more drowsy in the daytime, both predictors of premature death.

Another molecule that has been linked to neuroticism is brain-derived neurotrophic factor (BDNF), which is crucial for the upkeep of neurons. People with high neuroticism may have [lower levels of BDNF](#), which [could explain](#) the increased risk for Alzheimer's and other neurodegenerative diseases.

The negative emotions that often come with neuroticism may also impact gut health. Korean researchers recently [found](#) that people with high anxiety and vulnerability to stress, [two facets of neuroticism](#), have a less diverse gut microbiome – which may have implications for overall [health](#).

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'Healthy' Neuroticism?

In the movie *City Slickers*, Billy Crystal's neurotic character wanted a CAT scan for his birthday, according to his wife, who calls him “Mr. Death.” “I had a headache,” he says in his defense. Clearly, the anecdote is meant to be humorously over the top.

Still, some researchers have suggested that heightened attention to troubling symptoms could potentially benefit neurotic people. After all, if you have that suspicious mole checked out early – and it actually is cancer – that cautious attitude could save your life.

In a [2023 study](#), Mroczek and colleagues discovered that neurotic people are indeed more likely to visit their family doctors.

Yet, evidence linking “healthy neuroticism” to better health outcomes is slim, Mroczek said. When he and his colleagues looked at data from 15 studies involving almost 50,000 people, they discovered that healthy neuroticism didn’t lower the risk of high blood pressure, diabetes, or heart disease. In another [study](#), the researchers found it didn’t protect people from premature death, either.

One reason, Sutin speculates, could be that doctors might take such patients “less seriously,” potentially overlooking real medical issues. For Sutin, an important lesson for medical professionals is not to automatically disregard neurotic patients: “The hypervigilance may be picking up on some things going on in their bodies that are not necessarily detectable yet by a test.”

Treating Neuroticism

Luckily, neuroticism is “not set in stone,” Sauer-Zavala said. Research shows that personality can be modified with well-designed treatments, and neuroticism happens to be among the [most pliable](#) traits.

In a [2021 study](#), Sauer-Zavala and colleagues treated 223 volunteers with an approach called the unified protocol – a relatively new treatment designed to help people manage intense emotions.

“We spend a lot of time talking about the function of emotion,” Sauer-Zavala said. The technique teaches mindful emotional awareness and has people do activities meant to trigger the physical sensations of anxiety: spinning in circles so they get dizzy, for example, or breathing through a thin straw to mimic shortness of breath. In Sauer-Zavala’s [study](#), the protocol worked: After 16 weeks, people who were part of the research became considerably less neurotic than those in the waitlisted control group.

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The Unified Protocol Institute provides a [list](#) of therapists trained in the method. But you can also reach out to any licensed psychotherapist for help with managing strong emotions and reducing neurotic tendencies.

Personality can change, the experts agree. And that’s no joke.