

Here's What Your Body's Telling You When You Get Goose Bumps

By [Madeleine Burry](#) · Updated Sep 21, 2023 · Medically Reviewed by [Kimberly Shao, MD](#)



The strong emotions you might feel when watching a movie can cause goose bumps.
Image Credit: vorDa/E+/Gettyimages

When people get goose bumps, it's far from impressive: We don't puff up in an intimidating fashion, and unlike fur-covered mammals, we don't have enough hair for the action to warm us up. Instead, we wind up with pebbled-textured skin, akin to the flesh of a plucked fowl (goose, chicken — pick your bird).

You can't control when goose bumps appear — it's an involuntary reflex kicked off by your sympathetic nervous system, says [Abisola Olulade, MD](#), a board-certified family medicine physician with Sharp HealthCare in San Diego. (That's the part of your nervous system responsible for the "fight or flight" response.)

VIDEO OF THE DAY

Also known as piloerection, those distinctive bumps on your skin occur when tiny muscles at the base of hair follicles (known as arrector pili muscles) contract, making hair stand on end, Dr. Olulade explains. "It also causes the skin at the base of the follicle to be elevated, which appears as a bump."

Goose bumps typically occur in response to chills or thrills — meaning cold temperatures or strong emotional or psychological stimuli. Here's what your body is trying to tell you when your flesh starts popping goose bumps all over.

1. You're Cold

Feeling chilly can bring on goose bumps. Your body contracts the muscles around hair follicles in an attempt to minimize the effects of being cold, says board-certified dermatologist [Todd Minars, MD](#).

"Our bodies are trying to help protect or insulate us from the cold with our body hair for heat retention," Dr. Minars says.

We Recommend



HEALTH
4 Surprising Ways Your Body Warns You Something Is Wrong



HEALTH
Why Do My Fingers Swell When I Run?



HEALTH
Is Working Out One Body Part a Day Effective?

Unfortunately, it's likely not a very effective tactic for temperature regulation, because we simply don't have enough hair, per the [Cleveland Clinic](#).

The change in our skin from cold-induced goose bumps is temporary, Dr. Minars says.

"Once your body warms up again, whether through intentional warmth efforts (such as hugging yourself and rubbing your arms, legs, etc. that have goosebumps) or a change in exterior environmental triggers, the goose bumps should disappear," he says.

2. You're Feeling a Surge of Emotions

All sorts of emotions can kick off goose bumps, such as feeling afraid, startled or excited, Dr. Olulade says. A scary movie — or even a scary thought — can prompt the sensation. That's likely what prompted R.L. Stine to dub his creepy series of tales with the Goosebumps name.

ADVERTISEMENT

Getting raised flesh in response to fear makes sense if you think of goose bumps as something we have in common with other animals, with more fur. For fur-covered mammals, bristled hair changes their appearance, making them seem puffed up and far more intimidating.

Goose bumps can also occur when you're feeling sexually aroused, Dr. Olulade says. And other strong emotions, such as awe or joy, can inspire the reaction.

Researchers aiming to find out what prompts goose bumps had 50 participants listen to emotional music (such as Celine Dion's "My Heart Will Go On," Rufus Wainwright's rendition of "Hallelujah" and Amy Winehouse's "Back to Black") and audio film clips (from *Dead Poet's Society*, *Armageddon*, *Brokeback Mountain* and other movies). The dialogue from film elicited more goose bumps than music, and women were more prone to have goose bumps in response to emotions than men, per the March 2011 study published in [Biological Physiology](#).

The effect is similar with poetry. In small experiments, researchers assessed participants as they listened to poems, and found that goose bumps were one of the emotional responses, per an August 2017 study in [Social Cognitive and Affective Neuroscience](#).

3. You're Having Involuntary Muscle Contractions

"Anything that can cause involuntary muscle contraction can lead to goose bumps," Dr. Olulade says. For instance, seizures can sometimes have goose bumps as a side effect, per the [Epilepsy Foundation](#).

Withdrawing from alcohol or opioids can also lead to goose bumps, Dr. Olulade says.

And it can point to having a fever, which is often accompanied by chills, she says. When people have chills, they shiver due to muscles contracting and relaxing, per the [U.S. National Library of Medicine](#). Chills can sometimes be accompanied by goose bumps (although not always).

What About Keratosis Pilaris?

You may know this condition better as "chicken skin." [Keratosis pilaris](#) is different from goose bumps, but as you can tell from the fowl-invoking name, there's a similar appearance, Dr. Olulade says. "They look like goose bumps but may feel rougher," she says.

Keratosis pilaris doesn't come and go with temperature changes, like goosebumps can do, and it commonly occurs in specific areas, such as the back of the arms or legs.

This condition is caused by the body overproduces keratin, which is a protein found in skin, hair and fingernails, Dr. Minars explains. "When a patient has overactive keratin production, they can sometimes clog the hair follicles," he says.

Chicken skin is harmless, but your dermatologist can prescribe certain creams that may help clear it up.

People Are Reading

- 1 What Is Anaerobic Respiration in Humans?
- 2 Why Do My Feet Burn in My Tennis Shoes?
- 3 Shoulder Muscle Tear Symptoms

You May Also Like

- 1 A List of Bad Bacteria
- 2 Human Brain Thinking Process
- 3 Five Different Types of Joints