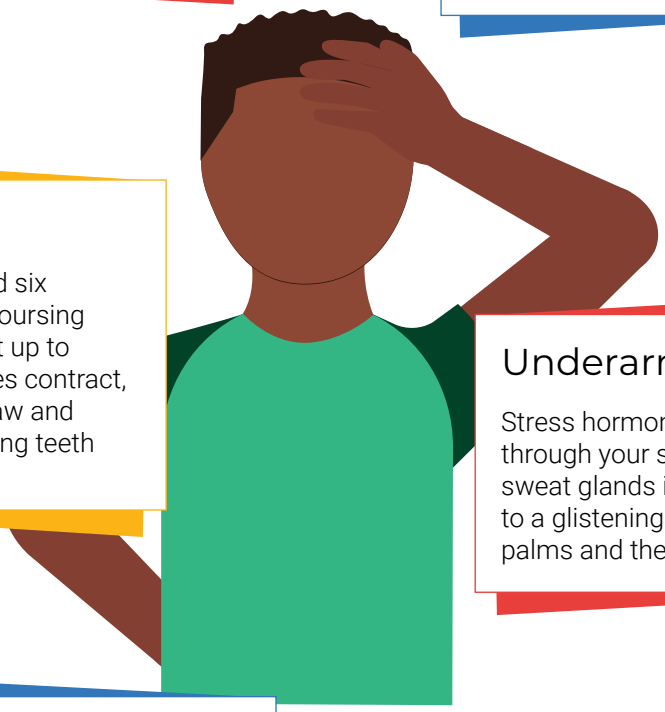
The Physiology of Anxiety

Eyes

Your senses are heightened as your brain goes on high alert for danger. Blinks become shorter so you don't miss whatever's next, says psychiatrist Henry Emmons, author of *The Chemistry of Calm*.

Mouth

When your body veers into survival mode, your frontal lobe goes offline. You might stutter or draw blanks mid-sentence.



Hands

Trembling like you've had six espressos? Adrenaline coursing through your body sets it up to fight or flee. Your muscles contract, including those in your jaw and limbs, leading to chattering teeth and shaky mitts.

Underarms

Stress hormones streaming through your system activate sweat glands in the skin, leading to a glistening brow, drenched palms and the dreaded pit stains.

Stomach

Fight-or-flight mode redirects bloodflow from your digestive system to your muscles, leaving your belly in knots. You might feel nausea or —for reasons scientists don't fully understand — the bubbly tickle of butterflies.

Bladder

Normally, a muscular wall keeps your bladder closed. But when you are in freak-out mode, the energy usually devoted to engaging the muscle is diverted to limbs, resulting in the gotta-go dance (or worse, an accident).

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The Symptom	Physiology of Fight, Flight, or Freeze
Trembling, shaking, or feeling jittery	Adrenaline is released and increased oxygen is circulated throughout body. This prepares the body for peak exertion and readies muscles for work.
Sweating (can be whole body or just palms)	Body heats up due to increased muscle work and heart rate. Sweating cools us back down and also makes us more slippery. (More difficult for a predator to grab!)
Heart races	Increased heart rate gets more blood out to our big muscles (arms and legs) and gets our bodies ready to fight or run.
Urgency to use the bathroom; "sick" or butterfly feeling in our stomach	Blood is pushed away from our digestive system and goes instead to our big muscle groups to get them ready; and cortisol is released which slows or stops digestion. Also, vomiting, diarrhea, or frequent urination empties our bodies to make us as light as possible so we can run faster.
Racing thoughts	Production of adrenalin increases temporarily. This makes us more likely to face a dangerous predator, but also causes fast, sometimes angry or aggressive thinking.
Irritability or aggression	Production of noradrenalin increases temporarily. This makes us more aggressive but also more likely to fight back against a predator.
Muscles feel tense and tight	Blood flow to muscles increases and muscles tighten to prepare for action and exertion.
Difficulty breathing	Our breath becomes more rapid and shallow to bring more oxygen to our blood, but this can also make us feel dizzy or short of breath.
Time feels as if it is moving more slowly	Senses and perception are sharpened so that we can observe all cues in the environment, enabling us to respond more quickly to the threat. This also can make time seem to slow down.
Blushing	Adrenaline causes blood vessels to dilate in order to improve blood flow and oxygen delivery. As a result, the veins in your face dilate, allowing more blood to flow through them and your face may turn red.
Feeling foggy or outside of ourselves	Sometimes called "depersonalization" or "dissociation," this part of fight, flight, and freeze is not completely understood but may serve as a way of protecting the mind from additional injury and trauma.
Feeling sick or run down	The immune system is suppressed in order to save valuable energy, because the biggest threat isn't disease but whatever we need to attack or run away from. This can cause weakness in fighting off illnesses.
Poor memory or poor concentration	Quick decision making is important for survival and so our brains focus on big decisions, resulting in less attention to detail.
Feeling like you're frozen to the spot	If you're not fighting back, the person or animal aggressing against you just might lose interest in continuing their attack.

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