

EDUCATIONAL: WHAT'S HAPPENING?

When certain things occur with our body, do you ever wonder what is really going on? How do things happen? Some of the occurrences we take as part of life and never question, "Why"? Today I am going to cover a few changes that our bodies go through at different times. We will explore the natural occurrences and changes that are part of our body's function.

Gray Hair

Does stress really turn our hair gray? If we live a stress free life can we keep this from happening? Despite popular belief, stress doesn't actually turn hair gray—the color can't change once produced by hair follicles, so hair cannot suddenly turn gray if we are under a great deal of stress. If a single strand of hair starts out brown (or red or black or blond), it's never going to turn gray. Our hair follicles produce less color as they age, so when hair goes through its natural cycle of dying and being regenerated, it's more likely to grow in as gray beginning after age 35. Genetics can play a role in when this starts.

Stress can trigger a common condition called telogen effluvium, which causes hair to shed at about three times the rate it normally does. The hair grows back, so the condition doesn't cause balding. But if you're middle-aged and your hair is falling out and regenerating more quickly because of stress, it's possible that the hair that grows in will be gray instead of its original color.

The vast majority of people with gray hair have age-related graying. However, sometimes graying hair indicates an illness, especially if it occurs at a particularly young age. Illnesses that may be heralded by gray hair include:

- Vitamin B12 deficiency
- Neurofibromatosis (also called Von Recklinghausen's disease). This group of inherited diseases causes tumors to grow along nerves. It may cause the bones and skin to develop abnormally.
- Tuberous sclerosis. An unusual, inherited condition that causes benign tumors in multiple organs (including the brain, heart, kidneys, eyes, lung and skin)
- Thyroid disease
- Vitiligo. This condition causes melanocytes (the cells at the base of hair follicles that produce color) to be lost or destroyed—perhaps because the immune system "misfires" and attacks the scalp rather than an infection.
- Alopecia areata. A disorder in which patches of hair may be suddenly lost, especially the colored (non-gray) hairs. This may lead to "overnight" graying because previously present gray or white hairs suddenly become more obvious. When hair growth resumes, it may be white or gray, but colored hair may eventually return.
- Osteopenia (low bone mass), a precursor of osteoporosis, has been linked to premature graying and heart disease.

How these conditions relate to hair graying is unclear. Cigarette smoking can also cause premature graying.

When and how thoroughly your hair turns gray has mostly to do with the genes you inherit from your parents. Though stress may play a role in the process, it would be more helpful to look to past generations rather than your current stress levels to help you understand why you are gray or if you will go gray.

Sneezing

Normally, a sneeze is a complex reflex involving nerves in the nose reacting to one of the following: Swelling of the nasal membranes, particles of a certain size, substances to which you are allergic. These triggers send messages to the throat, chest and abdomen to contract in a particular sequence to forcefully rid the nasal passage of its contents.

That said, humans actually expel more material from their mouths when they sneeze than from their noses. That's why covering both your mouth and nose when sneezing is important. (If you wanted to train your dogs or cats not to pass along germs during a sneeze, you'd have to get them to cover their noses only; these animals, and perhaps others, sneeze primarily through their noses.) So expelling things from the nose can't be the only point of sneezing—or else we humans are inefficiently built for it. What other purpose it might serve is not known.

Another unknown about sneezing is why the muscles of the face, including the eyelid muscles that briefly close the eyes, are also in the loop. It's thought that the eyes might shut to keep out flying particles. A common myth is the idea that you cannot keep your eyes open during a sneeze. If you tried hard enough, you could probably do it.

“Photic sneezing” is a common but mysterious phenomenon. Many people feel the need to sneeze at the sight of light. As with many quirky aspects of the human body, no one knows exactly why. There are theories that bright light somehow triggers the other nerves involved in sneezing. Maybe the light flooding into the eye or squinting in reaction to bright light causes a crossed signal of sorts, making the body think a sneeze is in order.

Photic sneezing is generally harmless; being sensitive to light in this way can be useful. Ever have that annoying “need-to-sneeze” feeling, but the sneeze just won't come? Look briefly at a light; often that will encourage the sneeze. And if you want to avoid sneezing the next time you come out of a matinee movie, keep your sunglasses handy; one study found they could prevent photic sneezes.

Blushing

Blushing happens when the blood vessels (the smallest of which are called capillaries) in the face open up (dilate), allowing more blood to flow into them. Emotions can have an impact on blood vessels. Blushing from embarrassment isn't the only example of this fact: Anger stimulates the release of hormones and activates nerves that can raise blood pressure and heart rate, increasing blood flow to the face. At the same time, this biologic response also dilates facial capillaries. There are other triggers of blushing besides emotions. Spicy foods and alcohol can also trigger blushing in some people. Occasionally, blushing may be a sign of illness. For example, people with a fever—especially kids—may have bright red cheeks.

Blushing can also be a symptom of a common skin condition, rosacea. Blushing, or the more dramatic flushing (with longer lasting and more widespread redness), may be a symptom of carcinoid syndrome. In this rare disease, a tumor intermittently releases hormone-like chemicals that dilate blood vessels; other symptoms include wheezing, diarrhea, and hives.

Typical blushing, however, is rarely due to significant medical illness. The dilation and constriction of blood vessels is controlled by the sympathetic nervous system—which is not under conscious control. So, try as you might, you can't make yourself blush or avoid it just by force of will.

Blushing tends to occur just on the face, not on other parts of the body. One theory about why states that the capillaries below the skin of the face are more densely packed and closer to the surface. However, no evidence has been found to support the claim that people who just blush easily have more capillaries closer to the skin than people who don't blush. It's possible that "blushers" have facial capillaries that dilate more in response to emotion compared to people who blush less often. And blushing may be more obvious in some people (such as those with fairer skin) than in others.

Some people have a fear of blushing in public, called erythrophobia. Of course, this embarrassment about blushing can just lead to more blushing, causing a distressing cycle. A type of therapy called cognitive behavioral therapy can help with erythrophobia (and other phobias). There is also a surgery used to treat excessive blushing, but its safety and effectiveness are not well proven.

Some people sing the praises of blushing. Historically, blushing has been seen as a positive trait that indicates "modesty, charm, and sexual attractiveness." Studies suggest that this positive view of blushing persists today. Such as making people seem charming, sympathetic, or endearing. The idea that blushing might be an attractive phenomenon has not been lost on the cosmetics industry: Why else would millions apply blush to their cheeks each day? Charles Darwin pondered the whys of blushing, calling it "the most peculiar and the most human of all the expressions".

Next, we are going to discuss a few common aging-related changes. First we will explain what's going on and follow up with what we can do about it. We are not necessarily at the mercy of Mother Nature. There are still things we can do to promote good health at any age.

Our cardiovascular system

What's happening? Over time, our heart muscle becomes less efficient — working harder to pump the same amount of blood through our body. In addition, our blood vessels lose some of their elasticity and hardened fatty deposits may form on the inner walls of our arteries (atherosclerosis). These changes make our arteries stiffer, causing our heart to work even harder to pump blood through them. This can lead to high blood pressure (hypertension) and other cardiovascular problems.

What can we do about it? To promote heart health, we must include physical activity in our daily routine. Eat a healthy diet, including plenty of fruits, vegetables and whole grains. If we smoke, ask a doctor to help quit. Our risk of heart disease will begin to fall almost immediately.

Bones & Muscles

What's happening? Our bones, with age, tend to shrink in size and density — which weakens them and makes them more susceptible to fracture. We might even become a bit shorter. Muscles generally lose strength and flexibility, and we may become less coordinated or have trouble balancing.

What can we do about it? We should include plenty of calcium and vitamin D in our diet. Build bone density with weight-bearing activities, such as walking. Consider strength training at least twice a week, too. Strength training increases bone density and reduces the risk of osteoporosis. Building muscle also protects our joints from injury and helps us maintain flexibility and balance.

Our digestive system

What's happening? Many factors can contribute to constipation, including a low-fiber diet, not drinking enough fluids and lack of exercise. Various medications, including diuretics and iron supplements, may contribute to constipation. Certain medical conditions, including diabetes and irritable bowel syndrome, may increase the risk of constipation as well.

What can we do about it? To prevent constipation, drink water and other fluids and eat a healthy diet — including plenty of fruits, vegetables and whole grains. Include physical activity in the daily routine. Don't ignore the urge to have a bowel movement. If we are taking medications that may contribute to constipation, ask a doctor about alternatives.

Our bladder and urinary tract

What's happening? Loss of bladder control (urinary incontinence) is common with aging. Health problems such as obesity, frequent constipation and chronic cough may contribute to incontinence — as can menopause, for women, and an enlarged prostate, for men.

What can we do about it? Urinate more often. If we are overweight, lose excess pounds. Pelvic muscle exercises (Kegel exercises) might help, too. Simply tighten your pelvic muscles as if you're stopping your stream of urine. Aim for at least three sets of 10 repetitions a day. If these suggestions don't help, ask a doctor about other treatment options.

Our memory

What's happening? Memory tends to become less efficient with age, as the number of cells (neurons) in the brain decreases. It may take longer to learn new things or remember familiar words or names.

What can we do about it? To keep our memory sharp, include physical activity in our daily routine and eat a healthy diet. It's also helpful to stay mentally and socially active. If we are concerned about memory loss, consult your doctor.

Our eyes and ears

What's happening? With age, the eyes are less able to produce tears, the retinas thin, and the lenses gradually become less clear. Focusing on objects that are close up may become more difficult. We may become more sensitive to glare and have trouble adapting to different levels of light. Our hearing may dim somewhat as well. We may have difficulty hearing high frequencies or following a conversation in a crowded room.

What can we do about it? Schedule regular vision and hearing exams — then follow our doctor's advice about glasses, contact lenses, hearing aids and other corrective devices. To prevent further damage, wear sunglasses when outdoors and use earplugs when around loud machinery or other loud noises.

Our teeth

What's happening? Our mouth may begin to feel drier and our gums may pull back (recede) from our teeth. We have less saliva to wash away bacteria, so our teeth and gums become slightly more vulnerable to decay and infection. Our teeth also may darken slightly and become more brittle and easier to break.

What can we do about it? Brush our teeth twice a day and clean between our teeth — using regular dental floss or an interdental cleaner — once a day. Visit the dentist or dental hygienist for regular dental checkups.

Our skin

What's happening? With age, our skin thins and becomes less elastic and more fragile. We may notice that we bruise more easily. Decreased production of natural oils may make our skin drier and more wrinkled. Age spots can occur, and small growths called skin tags are more common.

What can we do about it? Bathe in warm — not hot — water, and use mild soap and moisturizer. When we are outdoors, we should use sunscreen and wear protective clothing. If we smoke, ask a doctor to help quit. Smoking contributes to skin damage, such as wrinkling.

Our weight

What's happening? Maintaining a healthy weight — or losing weight if we are overweight — is more difficult as we get older. Muscle mass tends to decrease with age, which leads to an increase in fat. Since fat tissue burns fewer calories than does muscle, we may need to reduce the number of calories in our diet or increase our physical activity simply to maintain our current weight.

What can we do about it? To prevent unwanted weight gain, include physical activity in our daily routine and eat a healthy diet. Also keep an eye on portion sizes.

Our sexuality

What's happening? With age, sexual needs, patterns and performance may change. Illness or medication may affect our ability to enjoy sex. For women, vaginal dryness can make sex uncomfortable. For men, impotence may become a concern. It may take longer to get an erection, and erections may not be as firm as they used to be.

What can we do about it? Share our needs and concerns with our partner. We might experiment with different positions or sexual activities. Be open with our doctor, too.

They may offer specific treatment suggestions — such as estrogen cream for vaginal dryness or oral medication for erectile dysfunction.

Remember, it's never too late to adopt a healthy lifestyle. We can't stop the aging process, but we can minimize the impact by making healthy lifestyle choices. Becoming aware of the fact that what happens in our daily life is more of a reflection of what we think and how we view things, rather than the event itself. It is accepting what is out of our control and changing the things that we can. One of them is how we take care of ourselves! This means revisiting some basic concepts while opening up to seeing things with new eyes, thinking with new possibilities, and implementing new strategies for a healthier life. Make a commitment to the process of taking care of you, the goal being to get better at it, without being perfect. We can grow from both positive and negative experiences while finding meaning and purpose in our daily life. Positive action begins with empowering thoughts!

All of us want to be happy and the good news is that happiness is a choice; by balancing our needs with our wants we embrace a holistic joyful way of well-being. Be in partnership with ourselves—start with small goals, and never minimize our ability to change.

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Resources:

MayoClinic.com

Lora Shor, MSW, ACSW

Webster's Dictionary

Robert Shmerling, Harvard Health Publication

W. Ray Crozier, Ph.D