Crying, Brain freeze and Yawning

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Why do onions make us cry?

Onions contain sulfur which help to defend themselves. Propyl Sulfoxide is a sulfur found in onions. When you cut the onion and the air hits the onion it releases this sulfur that changes to sulfuric acid which makes our eyes sting and water. The way our nervous system defends itself is when the stinging happens it the nervous system sends a signal and our body reacts by making us produce tears to make us cry. We have lachrymal glands in our eye and when we cut an onion, they become irritated which cause our eyes to water.

I have always been told to keep my onions in the refrigerator, I wasn't sure why until I did research and found the cold doesn't allow sulfuric acid to escape as quick. When our bodies get cold our blood vessels have a hard time pumping blood threw our vessels. I have never liked cutting onions as my eye water for days after. After doing this research I found out that my lachrymal gland must stay irritated causing this to continue. I think it also continues as the smell in still on my hands and it lingers in my house for a long time.

Why does “brain freeze” or “ice cream headaches’ occur when we eat something extremely cold

Brain freeze occurs to our body getting cold and from eating ice cream or a very cold drink. Our bodies have blood vessels and when they constrict due to the cold less blood flow happens until our body tries to return to homeostasis. When our bodies return to homeostasis is when the pain of the headache hits. Our bodies returning to homeostasis means the blood vessels become dilated and allow blood to flow again. You can also experience a brain freeze from doing a polar dip to ring in the new year. I would imagine you would experience the pain of a brain freeze in other parts of your body as all the blood vessels in the body would constrict. Our body reacts in trying to return to homeostasis which cause the pain because our body warms itself fairly quickly. There is no real cure for this as we all love to eat ice cream, so unless you stay away from cold drinks or doing polar dips you will always experience a brain freeze. I have found if you eat ice cream slowly you are less likely to have a brain freeze as well.

Why do we yawn

We all yawn, in doing this we stretch our jaws to increase blood flow. Taking a large breath of oxygen helps to circulate blood flow and remove carbon dioxide. Yawning triggers the paraventricular nucleus to trigger the respiratory, cardiovascular and autonomic function when your jaw opens and you take a large breath causing a large amount of oxygen to activate the cardiovascular system to

produce blood flow to the brain. We also express carbon dioxide. This all happens to help cool our blood flowing through our body. They say to take deep breaths through our nose and out through our mouths to keep the blood temperature at homeostasis. Also, if we eat cooler food it keeps our blood temperature regulated and we do not yawn as much. I have tried both of these and I find it helps a little bit, but I am exhausted from no sleep do to working the front line against Covid-19 and going to school full time and being a parent. I will have to try to see if I don't yawn as much on our week off from classes with trying the breathing technique.

Whenever we touch something very hot or extremely cold, we immediately jerk our hand away.

I recently touched some hot water in a cup before giving it to my daughter to make sure it was not too hot for her. My finger, hand, and arm made a jerking motion to pull away. In this scenario our sensory receptor is our finger which touched the hot liquid in the cup. This sent an impulse of afferent to the spinal cord. The spinal cord then sent an interneuron to the motor neuron to the effector organ. This results in making us pull our finger away in a jerking motion. This is our bodies way of protecting itself from harm. When I was a child, I remember my brother pushing me into the wood stove and my reaction was to move very quickly away from the stove. This cased a burn and I was able to go jump in a snow bank to cool the area.

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