

It went all so fast! It didn't feel like we had any time to think about it and decide what we were going to do!

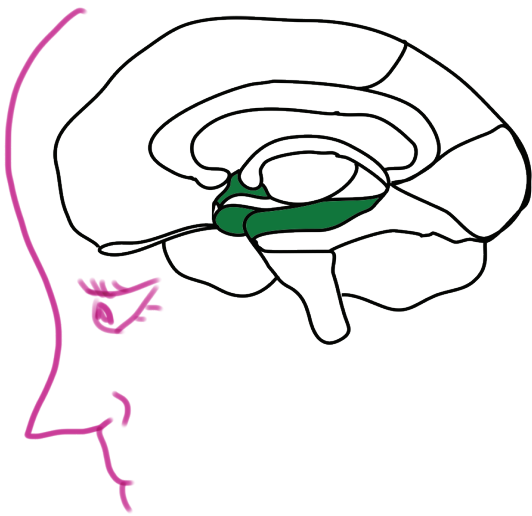


Yes, that's a good observation!

Those kind of reactions happen so fast that we often have no control over them, especially not in such sudden dangerous situations. Let's have a look at how that works:



Your brain first evaluates the current situation by comparing it with past experiences. If the situation is judged as dangerous it triggers a chain of reactions in your body. In this chain, a part of the brain called the amygdala will evaluate how dangerous the situation is. Another area of the brain called the hippocampus will help decide if we need to trigger the stress response. The hippocampus does this by comparing the situation to past experience. I did not know about the fence, and thought the situation with the alligator was dangerous. That is why I had a stress response. But you knew about the fence, so you knew the situation was not dangerous. That is why you did not have a stress response.



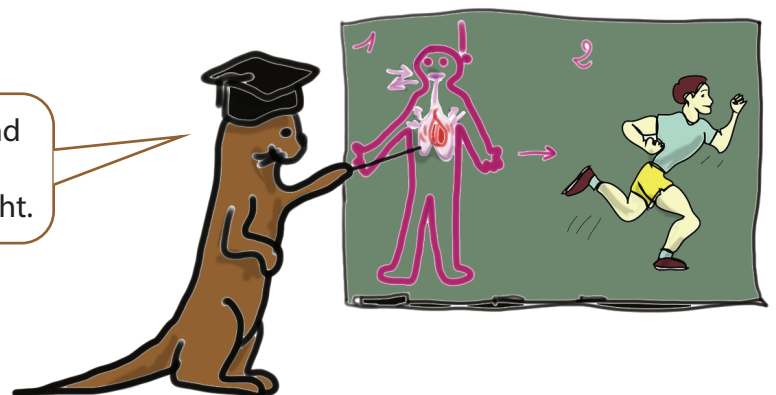
If the situation is judged as dangerous, a part of the brain called the hypothalamus gets activated. The hypothalamus sends signals to the adrenal gland. The adrenal gland is not in your brain but in your belly. It releases two hormones called adrenaline and cortisol.

I know adrenaline! That is a hormone that gives me a rush when I am on a roller coaster.

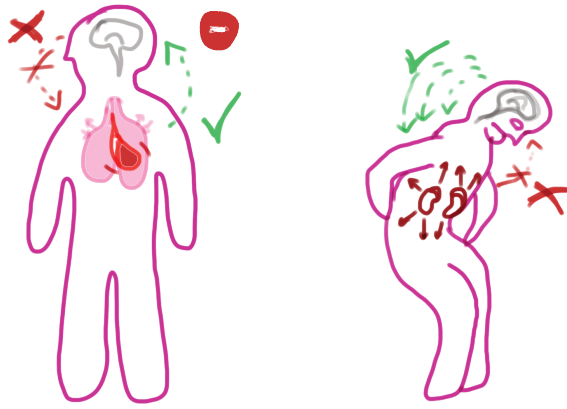


You have probably heard of adrenaline before. Maybe you heard about it when being on a roller coaster or doing extreme sports. Did you hear of other activities that give you an adrenaline rush?

The release of adrenaline and cortisol makes you breathe faster and makes your heart beat faster. These reactions of your body are necessary for when you have to run away or to use your fists to fight.



When the danger is gone, the brain gets a feedback signal about this. In response, the hypothalamus becomes less active and the body goes back to a calm state, just as it was before the stressful situation. The levels of adrenaline and cortisol in your body go back to normal. Your heartbeat and breathing slow down again.



But if the danger does not go away, the stress response continues. This means that your body produces more and more cortisol and adrenaline. The body stays ready for a flight or fight response, which on the long run makes the whole body tired. This is what we call chronic stress. 'Chronic' means that the stress comes back again and again. That can lead to severe health problems. Maybe you have heard of people who were stressed for a long time and in the end got so tired that they had no more energy to go to work or school.

But how can people like you get stressed out for a long time? Can't you just flee from the alligators, like I did, and then let your body calm down?



When that happens, we call that a "burn out".

Haha, yeah, that must seem strange to you! But you know, in our everyday life, we humans almost never encounter alligators. Instead, our stress is caused by exams, arguments with friends or family members, big life changes like moving to another place, or for adults their work.

Often we can't simply flee, and we cannot always solve the problem right away. Then the stress is constant. When the stress is constant, we find it hard to focus, listen, learn and do other things. We have to find other strategies to deal with the stress when it becomes part of our everyday life.



Okay, so what do you do?

So if you see an alligator again and there is no fence in between, that's easy: you run! In that case a little stress is good. For example, when you have an exam soon, it makes you a little stressed which helps you to focus and motivates you to study. So a little stress is okay. But, if you are in a stressful situation for a longer time and if that situation cannot be solved easily, the stress can become tiring. Then you need to use strategies to deal with it. For example, if you argue all the time with one of your classmates, you can try to do meditation, do sports, or talk about it with your friends, teachers, or family. This will lower the stress response of your body. You will feel less stressed.

Or we can also hug!



But how do I know when I am stressed?

To know if you are stressed, look for possible signs of stress:



- Not enjoying things that you used to enjoy. Not eating or wanting to do much
- Not sleeping well, because you wake up a lot or cannot fall asleep
- Panicking and being afraid
- Feeling worried, confused, annoyed, angry
- Sometimes it can even make you feel sick (headache or stomach-ache)

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