

# MAMMALIAN DIVE REFLEX

Have you ever heard of this? The mammalian dive reflex is a reaction in your body to cold water that allows you to stay underwater longer. It is used extensively by aquatic mammals, like otters, dolphins, and seals. It is also observed in animals like penguins and, of course, humans.

In humans, the water has to be colder than 21 C / 70 F, and it has to be in contact with the face. The sensitive nerves in our nasal cavity are responsible for relaying this information to our brain. When this happens, up to three things can occur:

1. Your heart slows down 10 to 25 percent! That's pretty dramatic, but nothing compared to seals, who can experience a drop from 125 beats per minutes all the way down to 10!
2. Blood circulation to your extremities is restricted. This means your fingers and toes start to feel numb.
3. On very deep dives, fluid is allowed to flow freely through your thoracic cavity. This keeps pressure evenly distributed so no organs get crushed.

It seems pretty conclusive that you would experience a drop in heart rate if you dunked your face in cold water. In fact, we try this out when we splash cold water on our faces to relax or wake up in the morning. See, science has practical benefits, too.