Why Your Heart Beats and What It Does

KS4 BIOLOGY Ages 11-14 ⏰ 3 min read

Your Heart Is a Pump

Your **heart** is a muscular organ about the size of your fist that sits in your chest, slightly to the left. It's one of the most important organs in your body because it never stops working — from before you're born until the day you die, it beats thousands of times every single day.

The main job of your heart is to pump **blood** around your entire body. Blood carries two really important things: **oxygen** (which your cells need to work) and **nutrients** (food energy). Your heart beats to squeeze blood out and push it through tubes called **blood vessels** that reach every part of your body.

Think of it like a water pump in a garden. Just as a pump pushes water through hoses to reach all the plants, your heart pumps blood through vessels to reach all your cells.

How Your Heart Actually Beats

Your heart has **four chambers** (rooms): two on top called **atria** and two on the bottom called **ventricles**. Each heartbeat happens in three stages. First, blood flows into the atria. Then they squeeze and push blood into the ventricles. Finally, the ventricles squeeze hard and push blood out to the lungs and the rest of your body.

This whole process happens really fast — usually between **60 and 100 times per minute** when you're resting. When you exercise or get scared, your heart beats faster to send more oxygen to your muscles.

Think of it like filling and squeezing a water balloon. Blood fills up the chambers, then the heart squeezes to force it out.

Why Your Blood Pressure Matters

The force of your heart's contractions creates **blood pressure** — the strength of blood pushing against your blood vessel walls. Doctors measure this to check if your heart is working properly. If your blood pressure is too high or too low, it can cause health problems.

Without Your Heartbeat, You Can't Survive

Your heart's beating is what keeps you alive. If it stops for even a few minutes without help, your brain and other organs won't get enough oxygen and serious damage happens. This is why **CPR** (cardiopulmonary resuscitation) is so important in emergencies — it manually pumps blood when the heart stops.

So next time you feel your pulse, remember you're feeling millions of tiny miracles happening. Each beat is your heart working hard to keep every single cell in your body alive and healthy.