# How Your Lungs Get Oxygen Into Your Blood

KS4 BIOLOGY Ages 11-14 ⏰ 3 min read

## Why Do We Need Oxygen?

Every single cell in your body needs **oxygen** to survive. Your brain, heart, muscles, and skin all depend on it. When you breathe in, you're pulling air into your lungs, and your job is to extract the oxygen from that air and get it into your **bloodstream**. Your blood then carries the oxygen to every part of your body.

## How Your Lungs Work

Your **lungs** are like two spongy bags inside your chest. When you breathe in, they fill with air. But your lungs aren't solid—they're full of millions of tiny air sacs called **alveoli** (say: al-VEE-oh-lie). These little sacs are where the magic happens.

Think of it like a sponge under water: the water soaks into all the tiny holes in the sponge. Your alveoli work the same way—oxygen from the air soaks into them.

## The Great Exchange

Here's how oxygen gets into your blood. Around each tiny **alveolus** are microscopic blood vessels called **capillaries**. The walls of these capillaries are incredibly thin—so thin that oxygen can pass right through them. When oxygen-rich air reaches the alveoli, the oxygen gas dissolves through the thin walls and into the blood inside the capillaries.

At the same time, your blood is carrying something your body doesn't need anymore: **carbon dioxide** (a waste gas). This travels in the opposite direction, moving from the blood into the alveoli so you can breathe it out. It's a perfect swap!

Think of it like a trade at school: you hand over something you don't want, and get something you do want in return.

## Where Does the Oxygen Go Next?

Once oxygen enters your blood, it attaches to a special protein called **haemoglobin** inside your red blood cells. These cells then travel through your **arteries** to deliver oxygen throughout your whole body. Your **heart** pumps to keep everything moving.

Without this amazing process happening in your lungs about **20,000 times a day**, your body simply couldn't survive. Every breath you take is keeping you alive!