What is a normal blood oxygen level (and how can I test mine?)

We all need oxygen to survive!

When your blood carries normal levels of oxygen around your body, this helps your vital organs to function correctly, avoiding the harm that can come from having too-low levels.

Why should I measure blood oxygen levels?

We measure blood oxygen levels in our bodies to ensure that everything is working as it should be. Your blood oxygen levels indicate the amount of oxygen that your red blood cells are carrying around your body, if the levels dip too low you can become unwell.

What can affect my oxygen levels?

There are various factors that can affect the levels of oxygen in your body, some are ongoing conditions, such as emphysema or lung damage, and some are more circumstantial, such as having a chest infection, or being at a high altitude.

How can you measure blood oxygen levels?

There are two main ways to measure oxygen levels in the blood – taking a sample of blood from your body with a needle (usually in the wrist or the earlobe), or using a pulse oximeter.

Reasons that blood oxygen saturation can drop include:

- Suffocation

- Choking

- Infections and viruses, such as pneumonia or Coronavirus (COVID19)

- Drowning

- Diseases, including emphysema, lung cancer, and COPD

- Heart failure or an ongoing heart condition

- Stroke

- Allergic reactions

- Sleep Apnea

- Being put under a general anaesthetic

Can I check my blood oxygen (SPO2) levels at home?

Yes! Using a Finger Pulse Oximeter, which is a small device that is attached to your finger to measure the amount of oxygen in the blood travelling round your body. The Oximeter takes an SpO_2 reading – an estimation of the amount of oxygen in your blood. [Find out how to use a pulse oximeter.](#)

Oxygen is carried around your body in your red blood cells by a molecule called haemoglobin. A finger pulse oximeter measures how much oxygen the haemoglobin in your blood is carrying. This is called the oxygen saturation and is a percentage (scored out of 100).

What is a normal blood oxygen level?

An SpO_2 reading of 96% or more is generally considered to be a normal oxygen level. An SpO_2 reading of 92% or less could indicate that your blood is poorly saturated. Insufficient saturation can cause issues such as chest pain, shortness of breath and increased heart rate.

Oxygen levels of 92% or less are considered abnormally low and usually would be classed as a medical emergency. Please seek urgent medical attention if your levels are this low, or have dropped 5% compared to your usual baseline, eg by attending A&E or ringing 999 immediately.

Who should be most concerned about their blood oxygen levels?

People who suffer from a [lung condition](#), such as COPD may need to monitor their SpO2 levels more often as they may have a lower blood oxygen level than a healthier person. Monitoring levels can help detect problems.

People suffering from respiratory conditions such as asthma, or cardiovascular conditions may also benefit from more regular monitoring of their blood oxygen levels for the same reasons.

If you are thought to be suffering from an infection or virus such as pneumonia or the most recent Coronavirus outbreak, you will have your blood oxygen levels tested and monitored. This is to help determine the severity of the infection, and to monitor your oxygen levels if you may need or are receiving treatment. See more about what happens when you are tested for Coronavirus in this video.