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## Symptoms

# Hypoxemia

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### Basics

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## Causes

By [Mayo Clinic Staff](#)

Several factors are needed to continuously supply the cells and tissues in your body with oxygen:

- There must be enough oxygen in the air you are breathing
- Your lungs must be able to inhale the oxygen-containing air — and exhale carbon dioxide
- Your bloodstream must be able to circulate blood to your lungs, take up the oxygen and carry it throughout your body

A problem with any of these factors — for example, high altitude, asthma or heart disease — might result in hypoxemia, particularly under more extreme conditions, such as exercise or illness. When your blood oxygen falls below a certain level, you might experience shortness of breath, headache, and confusion or restlessness.

Common causes of hypoxemia include:

- [Anemia](#)
- [ARDS](#) (Acute respiratory distress syndrome)
- [Asthma](#)
- [Congenital heart defects in children](#)
- [Congenital heart disease in adults](#)
- [COPD](#) (chronic obstructive pulmonary disease) exacerbation — worsening of symptoms
- [Emphysema](#)
- [Interstitial lung disease](#)
- Medications, such as certain narcotics and anesthetics, that depress breathing
- [Pneumonia](#)
- [Pneumothorax](#) (collapsed lung)
- [Pulmonary edema](#) (excess fluid in the lungs)
- [Pulmonary embolism](#) (blood clot in an artery in the lung)
- [Pulmonary fibrosis](#) (scarred and damaged lungs)
- [Sleep apnea](#)



Causes shown here are commonly associated with this symptom. Work with your doctor or other health care professional for an accurate diagnosis.

[← Definition](#)

[When to see a doctor →](#)

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