

Medical Biology with London's Air Ambulance

As an advanced trauma doctor at London's Air Ambulance, I can perform complex medical procedures at the roadside. I bring the hospital to the patient's side when every minute counts. I have the equipment and medicine to administer anaesthetic and perform open chest surgery anywhere it is needed – procedures normally only carried out in the hospital's Emergency Department. This can save lives.

Want to learn more? Download the **HELIMED APP!**



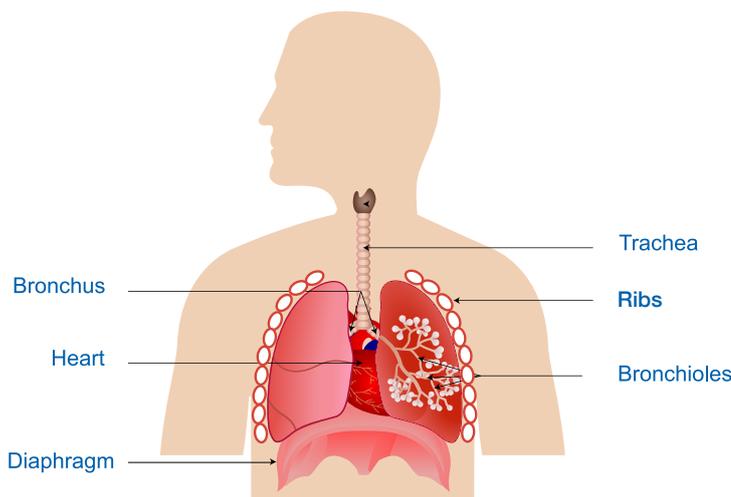
Dr Gareth Davies
Advanced Trauma Doctor

Respiratory System

The respiratory system is vital to providing the oxygen needed for you to survive. As the diaphragm and intercostal muscles pump air in through the trachea, it splits at the bronchi, and then branches off into the bronchioles. Oxygen then enters the blood at the air sacs.

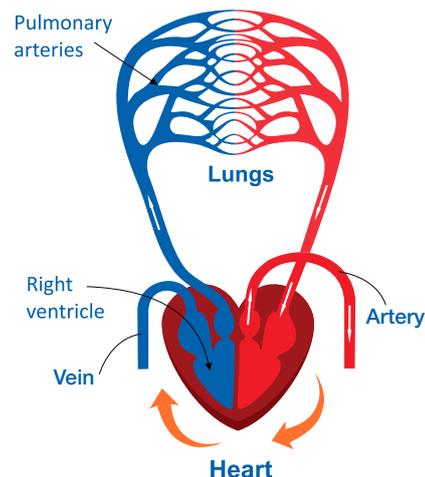
A punctured lung or a broken rib cage from a fall or car accident could be fatal. London's Air Ambulance can install a **chest drain** to remove trapped air or leaked blood from the pleural cavity, as well as provide artificial breathing through a **ventilator**.

Even though each helicopter comes equipped with a stretcher, most patients are treated in situ, then taken to hospital by road ambulance.



Circulatory System

Your circulatory system consists of your heart as well as veins, arteries and capillaries, taking oxygenated blood from the lungs in arteries to every cell in your body for respiration. Severe bleeding could cause a lack of oxygen to the brain and over 40% loss could cause death. London's Air Ambulance carry the equipment not only to perform **open heart surgery** (thoracotomy), to fix a punctured heart and perform heart massage, but they also carry a **blood transfusion kit** and a special balloon to plug broken arteries and stop patients bleeding to death - a procedure called **REBOA**.



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1. Fill the blanks

Oxygen is vital to your survival. Oxygen is absorbed by _____ in your _____ and transported around your body in your _____.

Your _____ pumps the blood to every _____ in your body for _____.

2. Name the specialist equipment found on board a London's Air Ambulance helicopter.

Equipment	Function
	Machine to help a patient breathe
	Inflating plug which stops bleeding from damaged arteries
	Device for removing blood or air from lung cavity
	Medicine used for pain relief only normally used in hospitals

