# Bleeding and shock


St John Ambulance

# Take a guess…

1. What percentage of the body does blood make up?

2. Is all blood red?

3. How far could all of the blood vessels in an adults body stretch?

4. Would you find gold in your blood?

5. Does blood keep us warm or cool?

6. How many litres of blood are in the average adult body?

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# Bleeding and shock

**(warning topic contains scenes of injury and bleeding)**

A short course to learn how to help someone who is bleeding and/or is suffering from shock.

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# Learning outcomes

- I can tell the difference between a minor and severe bleed
- I can give first aid to a casualty who is bleeding
- I understand what shock is and can help someone who is affected

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# First aid kits

- You **might** find a first aid kit in some of the places listed below.
- Do you know where your nearest first aid kit is kept?
- What could you expect to find in a basic first aid kit?

**Cars**

**Homes**

**Leisure centres**


**Workplaces**

**Public places**

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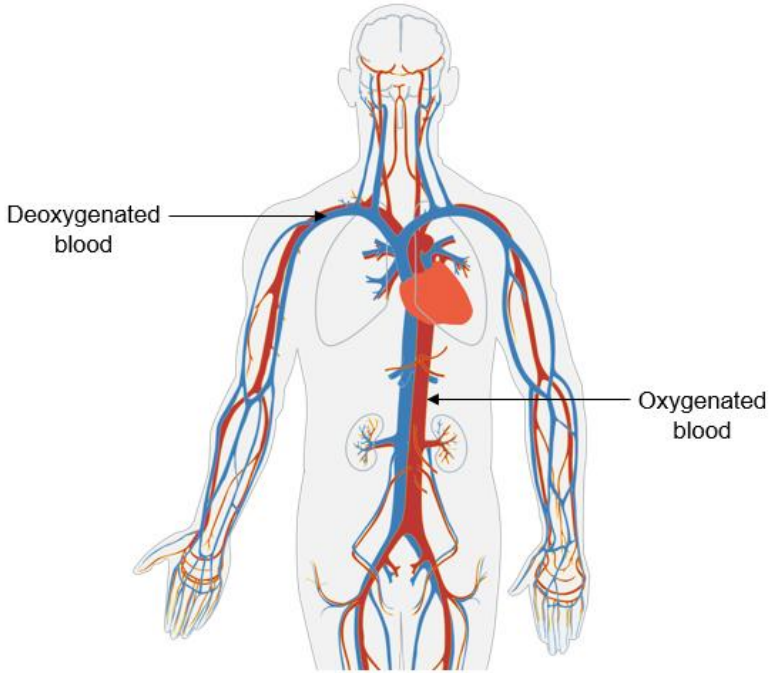
# Circulation

**Arteries, veins and capillaries are vessels that carry blood around the body to and from the heart.**

**To do its job, blood needs to be able to flow uninterrupted around the body.**

**Large vessels (arteries) carry oxygen rich blood away from the heart and around our body. Veins return blood back to the heart to be reoxygenated.**




**Q.** What would be the difference between arterial bleed and a venous (vein) bleed?

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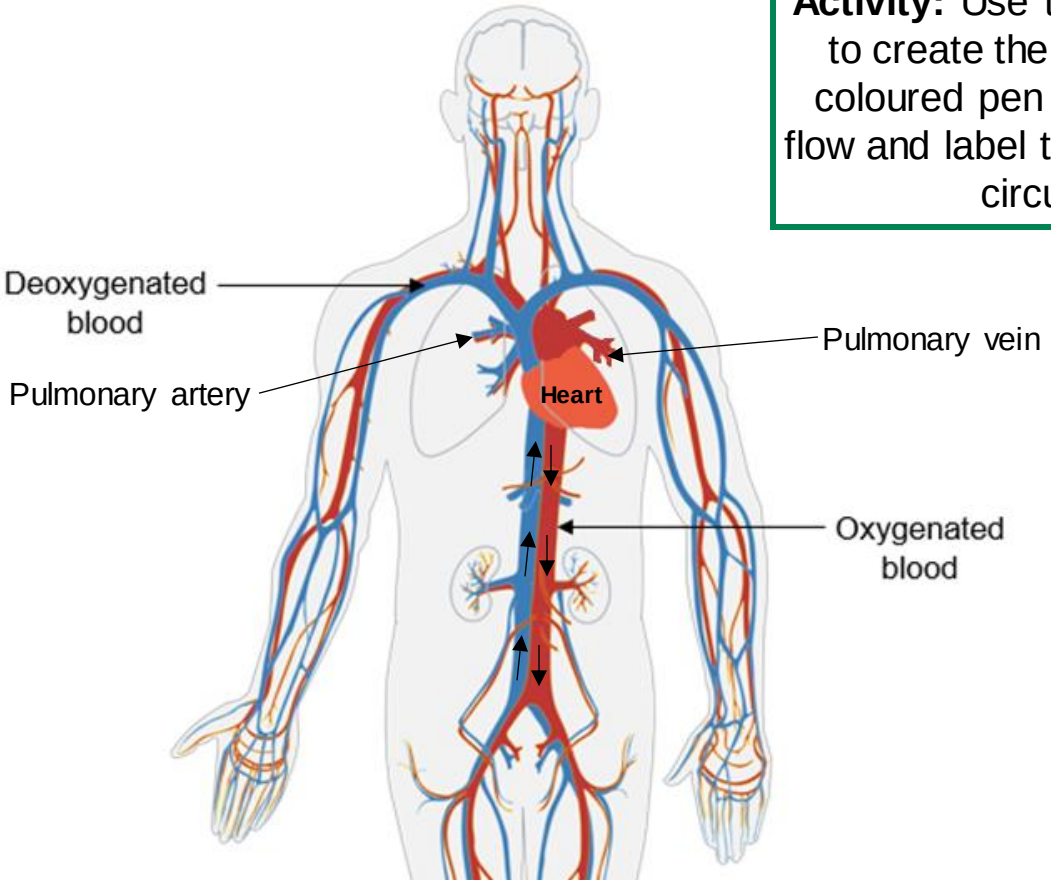
# Circulatory system A36

**Activity:** Use the activity sheet provided to create the circulatory system, use coloured pen or strings to show blood flow and label the key components of the circulatory system.

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# Blood contents A44

**Blood is basically made up from 4 different things:**

- **Plasma – X %. This is a liquid in the blood which helps to carry everything along.**
- **Red blood cells – X %. These carry oxygen for your body to use.**
- **Platelets – X %. These help your blood to clot which will stop you from bleeding**
- **White blood cells – X %. These help us to fight infection.**

**(% are approximate)**

**Q.** Can you research % and put this into a pie chart?

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# Types of wound A43

**Label these different types of wounds**

1

2

3

4

5

6

- **Abrasion** (graze)
- **Incised wound** (caused by a sharp edge e.g. razor)
- **Laceration** (blunt or ripping)
- **Puncture** (e.g. standing on a nail)
- **Stab wound** (deep incision usually caused by a knife)
- **Contusion** (bruise)

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# Infection control

**WHY?**

- Reduce the risk of infection being passed to the casualty or from the casualty.

**HOW?**

These actions should be taken before dealing with a patient if possible:

- thoroughly clean your hands
- put on gloves (Nitrile, not latex)
- ensure dressings are clean (sterile if available)

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# Shock

**What is shock?**

- Shock is a life-threatening medical condition which is caused by a lack of blood flow to tissues and organs in the body.
- The decreased blood flow means there is a lack of oxygen to the organs, this can lead to tissue damage. Shock requires quick treatment to prevent organ failure.

Signs and symptoms could be:

- Rapid, shallow breathing
- Pale, cold, clammy skin
- Rapid, weak pulse
- Dizziness or fainting
- Weakness
- Sweating
- Chest pain
- Nausea

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# Watch this video (warning contains scenes of injury and

https://youtu.be/yydY4OAE9DU

# Your turn: Nosebleed

**1. Sit**

- the casualty down leaning forward

**2. Ask**

- them to pinch the soft part of their nose for 10 minutes

**3. Check**

- if the bleeding has stopped
- if still bleeding pinch nose for a further 10 minutes

**4. Recheck**

- if still bleeding pinch for a further 10 minutes

**5. Help**

- if bleeding has not stopped after a maximum of 30 minutes seek medical help

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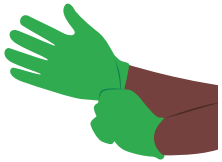
# Watch this video (warning contains scenes of injury and bleeding)

https://youtu.be/kRrkE8A4ceI

# Your turn: Severe bleeds

1. **Put on gloves**



2. **Apply pressure to the wound**
   - (but only if there is nothing stuck in it)

3. **Apply a dressing to the wound**
   - the pad goes over the injury
   - use bandage to secure it in place
   - make sure the bandage is not too tight
   - call 999/112

4. **Apply second dressing, if needed**
   - no more than two dressings at a time

5. **If an object is in the wound, do NOT remove it**
   - put a pad on either side of the object
   - bandage carefully over the pads without pushing the object in any further

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# Your turn: Dealing with shock

**1. Treat**

- any injuries that may have caused shock

**2. Help**

- the casualty to sit down, then lie down

**3. Raise**

- and support the casualty's legs if possible

**4. Call**

- 999/112

**5. Reassure**

- them and loosen any tight clothing

**6. Keep**

- the casualty warm

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# Blood quiz

Test your knowledge on this topic

- What is plasma and what does it do?
- How many basic components of blood are there?
- Name two types of wound
- Which blood vessels carry oxygenated blood?
- Which part of blood helps to fight infection?
- Name two symptoms of shock

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# Check your learning


**I am able to:**

- **Tell the different between a minor and severe bleed** ☐ ☐ ☐
- **Help someone who is bleeding** ☐ ☐ ☐
- **Help someone who is in shock** ☐ ☐ ☐
- **Call for help if someone is bleeding** ☐ ☐ ☐

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# Thank you!

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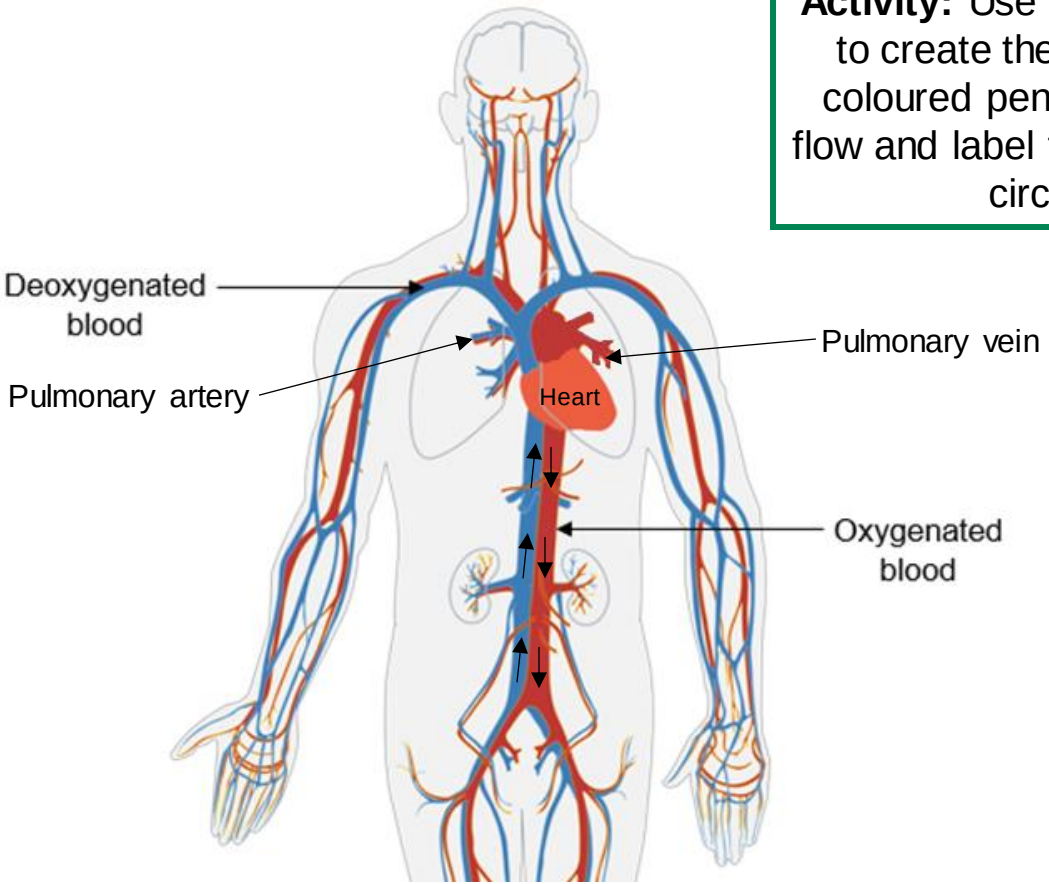


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# Activity A5
# Let's make blood

**Students now have the option to create a model of blood. The class will learn about basic blood content and the function of blood. Use our downloadable worksheet which can be found on the St John Ambulance website.**

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