

What is an EpiPen®?

An EpiPen is a small, hand-held auto-injector for intramuscular-use that administers adrenaline for the emergency treatment of anaphylaxis. Adrenaline (epinephrine) is a fast-acting hormone that is produced naturally by the adrenal glands in the body. Adrenaline works very fast in countering the effects of an anaphylactic response by:

- Widening the air passages in the lungs
 - This helps the casualty breathe
- Increases heart rate and constrict blood vessels
 - This increases blood pressure and cardiac output
- Reverses leakiness of vessels
 - This reduces swelling

Adrenaline is injected through an EpiPen into the fleshy part of the casualty's thigh.

There are a few reasons why it should be injected in this position:

- It is faster working and achieves higher maximum plasma level when administered intra-muscular compared to subcutaneous administration
- The fleshy part of the thigh (lateral thigh) is more vascular than the deltoid region, which means a faster uptake into the circulatory system.

Adrenaline doses range from 0.05ml in infants less than 1 year old, to 0.5ml 13 years and older – that is a ratio of 10x, which is why there are different EpiPens® for adults and children.

Side effects of adrenaline can include:

- Trembling
- Palpitations
- Increased blood pressure
- Nervousness
- Headache
- May be dangerous in high doses to the elderly

Important information about EpiPens®:

- Storage should be at room temperature
- It should be readily available – NOT locked in a cupboard
- Check expiry date regularly
 - Shelf life is 24 months from manufacture
 - Expired EpiPens® are not as effective
 - Check colour – if it is brown and cloudy, this means it is off and should be replaced immediately. This may occur before expiry date, especially if it has been kept in the heat or in direct sunlight
- Expired EpiPens® can be used if out of date IN AN EMERGENCY
- There is limited risk in giving an excessive dose (i.e. Child EpiPen® for children <20kgs) – the risks of not giving it may far outweigh any possible side-effects.