This leaflet has been written specifically about the use of this medicine in children. The information may differ from that provided by the manufacturer. Please read this leaflet carefully. Keep it somewhere safe so that you can read it again.

Anaphylaxis is a severe and life-threatening allergic reaction – it can be fatal if treatment is not given quickly. The adrenaline auto-injectors should be used in an emergency while waiting for medical help. Make sure that your child always has their auto-injector with them, that it is not past its use by or expiry date, and that anyone who looks after them knows how to use it as well, particularly their school or nursery.

### Name of drug
Adrenaline (also known as epinephrine)

**Brand names:** Emerade®, EpiPen®, Jext®
(intramuscular injection for self-administration)

### Why is it important to use the adrenaline?

Anaphylaxis is a severe allergic reaction, which may be life-threatening. It usually occurs straight after coming into contact with the trigger (also called the allergen); however, it can occur a few hours later. Different people have different triggers, such as foods (e.g. peanuts, eggs or seafood), medicines (e.g. penicillin) or animals (e.g. bee or wasp stings).

By using the adrenaline auto-injector as soon as your child has signs of an anaphylactic reaction, you may be able to prevent a full-blown reaction, while you wait for an ambulance.

### What is adrenaline available as?

- **Emerade 150 micrograms:** delivers 150 micrograms of adrenaline
- **Emerade 300 micrograms:** delivers 300 micrograms of adrenaline
- **Emerade 500 micrograms:** delivers 350 micrograms of adrenaline
- **EpiPen Auto-injector 0.3 mg** (yellow label): delivers 300 micrograms of adrenaline
- **EpiPen Jr Auto-injector 0.15 mg** (white label with yellow stripe): delivers 150 micrograms of adrenaline
- **Jext 300 micrograms:** delivers 300 micrograms of adrenaline
- **Jext 150 micrograms:** delivers 150 micrograms of adrenaline

### When should I give adrenaline?

You should use the adrenaline auto-injector if your child has symptoms of an anaphylactic reaction. If your child also has an asthma inhaler, they should use this too.

- The early signs of an anaphylactic reaction are tightening of the throat, difficulty breathing, swelling of the throat and mouth, a skin rash anywhere on the body, or generalised flushing of the skin, abdominal cramps, feeling sick (nausea), being sick (vomiting), sudden feeling of weakness, racing heart, panic and anxiety. The person may collapse or become unconscious.

If symptoms have not improved 5 minutes after using the auto-injector, another dose with a new auto-injector can be given.

- Telephone for an ambulance and say that your child is having an anaphylactic reaction.
- You must take your child to hospital after using the auto-injector, even if they seem well. Take the auto-injector with you. Tell the doctor which auto-injector you used, and how many.

### How much should I give?

Your doctor will work out which size of auto-injector is right for your child. Each auto-injector delivers a fixed amount of adrenaline. Each auto-injector can be used only once.

### How should I give it?

There are three different types of adrenaline auto-injector – Emerade, EpiPen and Jext. These are used in different ways. You MUST follow the instructions provided with your auto-injector. If you follow the wrong instructions, you risk injecting the adrenaline into your own thumb. If you are not sure which auto-injector you have, or how to use it, ask your doctor, nurse or pharmacist to show you. For more information, see the resources listed at the bottom of this leaflet.

The auto-injector must only be used in the thigh. Never inject it anywhere else on the body, as this could do harm.

### Detailed information on how to use adrenaline auto-injectors can be found on the manufacturers’ websites:

- Emerade - www.emerade.com
- EpiPen - www.epipen.co.uk
- Jext (Lifeline) - www.jext.co.uk

Keep your auto-injectors in date, but remember that even an out of date pen is better than nothing.

### After giving adrenaline

You must take your child to hospital after using the auto-injector, even if they seem well. Take the auto-injector with you, where it can be safely disposed of.
When should the medicine start working?
The medicine should start working almost immediately. If your child’s symptoms have not improved 5 minutes after using the auto-injector, give another dose of adrenaline using a new pen. Keep the child in the recovery position or lying down till help arrives.

- Even if you are not sure the first injection worked properly, you must wait 5 minutes before giving another injection. Otherwise you risk giving too much

What if my child is sick (vomits)?
You do not need to give another dose of adrenaline, as it will still work.

What if I give too much?
You are unlikely to do harm if you give an extra dose of adrenaline by mistake. If you are concerned, discuss this with your doctor when you get to the hospital.

Are there any possible side-effects?
We use medicines to make our children better, but sometimes they have other effects that we don’t want (side-effects). Your child may get any (or none) of the following side-effects after using the adrenaline auto-injector, but they usually do not last for long:

- feeling sick or being sick (vomit)
- fast or irregular heart rate (feeling that the heart is racing or fluttery)
- cold hands and feet
- difficulty breathing
- feeling anxious, shaky, restless, weak or dizzy
- headache
- sweating
- difficulty passing urine (doing a wee)
- the skin where the adrenaline was injected may go pale or feel sore.

Is there anything else I need to know about adrenaline?

- The auto-injector must only be used in the thigh. Never inject it anywhere else on the body, as this could do harm.
- Make sure you know how to use the auto-injector correctly, otherwise it may not work. Remember that Emerade, EpiPen, and Jext are used in different ways, so make sure you know how to use the one your child has.
- Make sure that your child has their auto-injector with them at all times.
- Make sure that anyone who looks after your child knows what to do and how to use the auto-injector if your child has an anaphylactic reaction. You need to make special arrangements with your child’s school or nursery.
- If someone accidentally injects the adrenaline into their hands or fingers, the blood flow to this area may stop (the skin will go pale). Take the person to hospital straight away.
- Make sure that you always have at least two auto-injectors. Order a new prescription as soon as you have used one.
- Make sure that the auto-injector you carry with you is still within its ‘use by’ date. Give old pens to your pharmacist to dispose of.

Where should I keep this medicine?

- There are differences between each brand – check the manufacturers’ websites for detailed information on how to store your child’s auto-injectors.
- Keep the auto-injectors out of the reach and sight of other children.
- Keep the auto-injectors in the box they came in, to protect the contents from light.
- If you have EpiPen or Jext auto-injectors, check, from time to time, that the liquid in the glass container is clear and colourless. If it is pink or brown, or has bits in it, order a new prescription and give the old auto-injector to your pharmacist to dispose of.

Who to contact for more information

Your child’s doctor, pharmacist or nurse will be able to give you more information about adrenaline auto-injectors and about other medicines used to treat allergies and anaphylaxis. You can also get useful information from:

- England
  NHS 111: 111 - www.nhs.uk
  NHS Direct: 0845 4647 - www.nhsdirect.wales.nhs.uk
- Scotland
- Wales/Galw Iechyd Cymru
  NHS Direct: 0845 4647 - www.nhsdirect.wales.nhs.uk
- Northern Ireland
  NI Direct: www.nidirect.gov.uk
  The Anaphylaxis Campaign
  www.anaphylaxis.org.uk - 01252 542029
  Allergy UK
  www.allergyuk.org - 01322 619898
- Royal College of Paediatrics and Child Health – YouTube
  Videos about anaphylaxis, and using and storing an auto-injector - www.youtube.com/rcpchuk
  Great Ormond Street Hospital information sheet
  www.gosh.nhs.uk/gosh_families/information_sheets/anaphylaxis/anaphylaxis_families.html

www.medicinesforchildren.org.uk

The primary source for the information in this leaflet is the British National Formulary for Children. For details on any other sources used for this leaflet, please contact us through our website, www.medicinesforchildren.org.uk

We take great care to make sure that the information in this leaflet is correct and up-to-date. However, medicines can be used in different ways for different patients. It is important that you ask the advice of your doctor or pharmacist if you are not sure about something. This leaflet is about the use of these medicines in the UK, and may not apply to other countries. The Royal College of Paediatrics and Child Health (RCPCH), the Neonatal and Paediatric Pharmacists Group (NPPG), WellChild and the contributors and editors cannot be held responsible for the accuracy of information, omissions of information, or any actions that may be taken as a consequence of reading this leaflet.