

## Contact details

If you have any questions about any of the information contained in this leaflet please contact the Children's Clinic on 01205 445416.

## Further References:

Dosanjh, A. Infant anaphylaxis : the importance of early recognition-Journal of asthma and allergy 2013, Vol/15 6/ (103-7)

MHRA Drug Safety Update Vol 7, Issue 10, May 2014  
Adrenaline auto injection advice for patients

Anaphylaxis Campaign  
[www.anaphylaxis.org.uk](http://www.anaphylaxis.org.uk)  
Telephone: 01252 546100

More information at:

[www.epipen.co.uk](http://www.epipen.co.uk)  
[www.jext.co.uk](http://www.jext.co.uk)  
[www.emerade-bausch.co.uk](http://www.emerade-bausch.co.uk)

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## Severe allergic reactions/ anaphylaxis in children

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## Aim of the leaflet

This leaflet is aimed at children and young people (and their families) who suffer from risk of severe allergic reactions or anaphylaxis. It aims to tell you what different types of allergic reaction are and how to react to them.

## Introduction

An allergy is when the body reacts to foreign substances (allergens) in various forms. It can occur following exposure by ingestion, inhalation or injection. The common foreign substances are drugs (e.g. penicillin), insect stings (e.g. wasps, bees, hornets), food substances (e.g. peanut, other nuts, berries, egg, seafood, milk), pollens, animal hair and vaccinations.

## What happens in the body

The allergic reaction causes a massive release of various substances, the best known being histamine (which is responsible for the intense itchiness) in the body. They cause various changes in the body: blood vessels dilate (open up) and become more leaky, thereby causing fluid to leak out of the vessels; hence the redness and swelling. They also cause narrowing of the breathing tubes (bronchospasm) which in turn causes breathing difficulties and wheezing. To a minor extent the blood vessels in the bowel also dilate and leak causing fluid loss into the bowel - this causes nausea, vomiting, stomach cramps and diarrhoea.

These reactions can either be mild and localised or very severe and life threatening.

## Treatment

- Give adrenaline via Epipen/Jext/Emerade as per directions for using Epipens/Jext/Emerade.
- Call ambulance.
- Stay with and reassure child.
- A second Epipen/Jext/Emerade can be given after 5 to 15 minutes if first dose is ineffective.
- Employ resuscitation techniques if necessary.
- Antihistamines are given following emergency treatment to prevent any late reactions.
- Even if your child has fully recovered following administration of the adrenaline, they must still go to hospital as there is a risk of the allergic reaction recurring some hours later (called a biphasic reaction).

N.B (1). If a child known to have severe allergic reactions/ anaphylaxis is exposed to their particular allergen, observe them very carefully. At the first sign of any allergic reaction follow the instructions on the child's individual treatment plan.

NB (2). When your child reaches 30kg in weight, they will need to change to an adult auto-injector (Epipen, Jext or Emerade).

## Recognition of Severe Allergic Reactions/ Anaphylaxis in Infants

An infant cannot express how they are feeling verbally.

As with other children, skin symptoms, angioedema and/or breathing difficulties may be seen, but other signs can be irritability, persistent crying, drooling, scratching and drowsiness.

**Treatment** - see previous page.

### Anaphylaxis

Treatment must be given immediately - administer the EpiPen/ Jext/Emerade and call the ambulance.

This is the most severe form of allergic reaction and is life threatening, but it is a rare event. In general, symptoms start immediately after exposure. Anaphylaxis may develop without signs of lesser reactions.

Features of anaphylactic reaction that should be looked for:

- |   |  |   |  |
|---|--|---|--|
| 1 | Feeling of faintness and/or apprehension               | } | Give adrenaline via EpiPen/<br>Jext/Emerade<br>Dial 999<br>Lay child flat with legs raised<br>(to keep blood flow to vital organs) |
| 2 | Hoarse voice and/or feeling of lump in the throat      |   |  |
| 3 | Difficulty in breathing and/or swallowing              |   |  |
| 4 | Cough and/or wheeze                                    |   |  |
| 5 | Blue colour to the lips                                | } | Signs of cardiac arrest<br>Employ resuscitation techniques<br>Remember:<br>Airway Breathing<br>Circulation                         |
| 6 | Loss of consciousness                                  |   |  |
| 7 | Breathing stops, no pulse felt and heart stops beating |   |  |

## Urticaria (Nettle rash/Hives)

Not life threatening.

These are very common and affect about 10 to 20% of the population at some time during their life. They can be localised or all over the body. They are pale pink raised areas of the superficial skin about 0.2 to 10cms in diameter. These areas are intensely itchy and usually last around 24 hours.

### Treatment

- A cold compress, calamine lotion or antihistamine cream may be applied (e.g. Anthisan).
- If symptoms persist and are troublesome an oral antihistamine medicine or tablet can be given, according to prescription.
- If the cause is found, avoidance is the best treatment. If the carer is a person other than parents - they should be informed.
- If rash is widespread and/or carers are concerned that it may be more serious dial 999 for an ambulance.

## Mild to Moderate Allergic Reaction

Rarely life threatening unless the swelling involves the voice box or larynx (see laryngeal oedema).

These are "giant" urticarias with ill-defined borders occurring in the deeper part of the skin, therefore, the skin above may look normal. Unlike urticaria it is tender rather than itchy. It can occur in any part of the skin and involve the mouth, lips, face or eyes. The swelling is sudden in onset and generally lasts a short time, disappearing within 24 to 72 hours. The reaction may start with symptoms of itchy throat and/or odd sensation or taste in the tongue or lips. Other signs may be abdominal pain and vomiting, or a sudden change in behaviour.

### Treatment

- Prescribed oral antihistamine medication may be given.
- Check Action Plan given to you by your consultant.
- At any sign of involvement of the tissues of the mouth and throat, e.g. itchy throat, tingling of lips, mouth or tongue, odd sensations or taste in the tongue or lips - give Epipen/Jext/Emerade as Laryngeal oedema may be imminent.
- **If in doubt as to whether the reaction is severe or not USE your Adrenaline Auto-injector (Epipen, Jext or Emerade).**
- Call ambulance.
- Lay child flat with legs raised (to keep blood flow to vital organs).
- Avoidance of recognised precipitating causes.

## Laryngeal Oedema (Swelling of the throat)

A medical emergency.

A severe reaction to a foreign substance may in rare cases cause swelling of the larynx (voice box) which is the entrance to the lungs. This can be a life threatening episode if not recognised and treated immediately.

There may be a feeling of a "lump in the throat", hoarse voice and difficulty in breathing and swallowing.

Breathing becomes laboured and noisy (a harsh sound coming from the throat and/or a high pitched whistling sound coming from the chest). Small children sometimes make a coughing noise - similar to choking.

If the laryngeal oedema is severe the lips may appear blue. This colour reflects low oxygen levels in the blood and implies severe narrowing of the child's airway. In this case, oxygen should be administered if it is available, irrespective of other treatments.

### Treatment

- Give adrenaline via Epipen/Jext/Emerade - follow directions for use of Epipen/Jext/Emerade.
- Call ambulance.
- Lay child flat with legs raised.
- Reassure child.
- Give Salbutamol/Terbutaline inhaler if prescribed and child able to co-operate.
- Antihistamines are given following initial emergency treatment to prevent any late reactions.