

What are allergies?

Allergies occur when the immune system produces antibodies against substances in the environment (allergens) that are usually harmless. Once allergy has developed, exposure to the particular allergen can result in symptoms that vary from mild to life threatening (anaphylaxis).¹

What is anaphylaxis?

Anaphylaxis is a severe, rapidly progressive allergic reaction that is potentially life threatening.

Although allergic reactions are common in children, severe life threatening reactions are uncommon and deaths are rare. However, deaths have occurred and anaphylaxis must therefore be regarded as a medical emergency.

What are the main causes?

Food allergies are the most common triggers for an anaphylactic reaction. Eight foods cause 90% of food allergic reactions in Australia and can be common causes of anaphylaxis. These are:

- peanuts
- tree nuts (e.g. cashew)
- egg
- cow's milk
- wheat
- soybean
- fish and shellfish.

Other triggers include:

- insect stings, particularly bee stings
- medications
- latex
- anaesthesia

Signs and symptoms of anaphylaxis

The symptoms of a **mild to moderate allergic reaction** can include:

- swelling of the lips, face and eyes
- hives or welts
- abdominal pain and/or vomiting.

Symptoms of anaphylaxis (**a severe allergic reaction**) can include:

- difficulty breathing or noisy breathing
- swelling of the tongue
- swelling/ tightness in the throat;
- difficulty talking and/or a hoarse voice
- wheezing or persistent coughing;
- loss of consciousness and/or collapse
- young children may appear pale and floppy.

Why is it important to know about anaphylaxis?

The most important aspect of the management of students with anaphylaxis is avoidance of any known triggers. Schools need to work with parents and students to ensure that certain foods or items are kept away from the student, to prevent exposure to known triggers while at school. Knowledge of severe allergies will assist staff to better understand how to help students who have this problem.

How can anaphylaxis be treated?

Adrenaline given as an injection into the muscle of the outer mid-thigh is the most effective first aid treatment for anaphylaxis. Children at risk of recurrent anaphylaxis are advised by their medical practitioners to carry adrenaline in an auto-injector, e.g. EpiPen®, for administration in an emergency. Children under 20kg are prescribed an EpiPen® Junior, which has a smaller dosage of adrenaline.

Parents should provide schools with the child's EpiPen®, which should be kept in an accessible, unlocked location. If a student is treated with adrenaline (an EpiPen®) for anaphylaxis, an ambulance must be called and the student should be taken immediately to a hospital.

¹ Adapted from NSW Health Factsheet – Anaphylaxis
http://www.health.nsw.gov.au/pubs/factsheet/pdf/anaphylaxis_allergic_fs.pdf

How can anaphylaxis be prevented?

The key to prevention of anaphylaxis in schools is knowledge of those students who are at risk, awareness of triggers (allergens) and prevention of exposure to these triggers.

Some children wear a medical warning bracelet to indicate allergies.

Anaphylaxis at school

Any school that has a student or students at risk of anaphylaxis must have the following in place:

- An Anaphylaxis Management Plan for each student, developed in consultation with the student's parents/carers and medical practitioner.
- Prevention strategies for in-school and out-of-school settings.
- A communication plan to raise staff, student and school community awareness about severe allergies and the school's policies.
- Regular training and updates for school staff in recognising and responding appropriately to an anaphylactic reaction, including competently administering an EpiPen®.

The **Anaphylaxis Guidelines for Victorian Government Schools** has been developed to assist schools in planning for and supporting students with severe allergies. The Guidelines can be downloaded from: <http://www.sofweb.vic.edu.au/wellbeing/support/anaphyl.htm>

When a child is at school and is at risk of anaphylaxis, parents must:

- inform school staff of the diagnosis and its cause
- discuss prevention strategies with the school
- work with school staff to develop an Anaphylaxis Management Plan in consultation with the child's medical practitioner
- provide copies of an ASCIA Action Plan for the child, with up to date photographs
- supply the child's EpiPen® and ensure it has not expired
- attend the school's training session, where possible.

Staff involved should:

- know the identity of students who are at risk of anaphylaxis
- liaise regularly with parents
- follow information contained in the student's Anaphylaxis Management Plan
- obtain training in how to recognise and respond to an anaphylactic reaction, including administering an EpiPen®
- ensure the EpiPen® is stored correctly (at room temperature and away from light) in an unlocked, easily accessible place
- know where the EpiPen® is located
- In the event of a reaction, follow the procedures in the student's ASCIA Action Plan.

Summary of important points

- Anaphylaxis is a medical emergency that requires a rapid response.
- Certain foods and insect stings are the most common causes of anaphylaxis.
- The key to prevention of anaphylaxis is identification of triggers and prevention of exposure to these triggers. Schools need to develop prevention strategies in consultation with the student and the student's parents.
- Adrenaline given through an EpiPen® autoinjector is the treatment of choice for anaphylaxis. The EpiPen® is designed so anyone can use it in an emergency.
- School staff who are responsible for the care of students at risk of anaphylaxis should obtain training in how to recognise and respond to an anaphylactic reaction, including administering an EpiPen®.

Further information

Department of Education and Early Childhood Development
www.education.vic.gov.au

Australasian Society of Clinical Immunology and Allergy:
www.allergy.org.au

Royal Children's Hospital Allergy and Immunology Department:
http://www.rch.org.au/allergy/index.cfm?doc_id=7219

Anaphylaxis Australia:
www.allergyfacts.org.au