Anaphylaxis is the most severe form of allergic reaction and is potentially life-threatening. Anaphylaxis is a medical emergency and requires immediate treatment.

What are allergies?
Allergies occur when an overactive immune system produces antibodies (IgE) against substances in the environment (allergens) that are usually harmless. Exposure to an allergen can result in symptoms that vary from mild to life-threatening.

What is anaphylaxis?
Anaphylaxis is a severe and sudden generalised allergic reaction involving the respiratory or cardiovascular system. Other systems such as the skin and/or gastrointestinal tract may also be involved.

It can occur when a susceptible person is exposed to an allergen (such as a particular food or an insect sting). Reactions usually begin within minutes of exposure and can progress rapidly over a period of up to two hours or more. Anaphylaxis is potentially life-threatening and always requires an emergency response.

How common is anaphylaxis in Australia?
Anaphylaxis is uncommon but not rare, with new cases arising at rates of between 8.4 and 21 per 100,000 patient-years. Anaphylaxis is more common in children than adults. An Australian survey of parent-reported allergy and anaphylaxis found that 1 in 170 preschool children had suffered at least one episode of anaphylaxis.

Hospital-based studies suggest a death rate in the order of 1 per 100-200 episodes of anaphylaxis treated in an emergency department.

The most common triggers of anaphylaxis are:
- Foods (e.g. peanut, tree nuts, fish, shellfish, cow’s milk and other dairy foods, eggs, sesame, soy or wheat)
  - N.B. An individual with IgE-mediated allergy to cow’s milk has a 92% chance of being allergic to goat’s milk
- Insects (e.g. bee stings, wasp stings, jack jumper ant bites)
- Latex (e.g. rubber gloves, balloons, swimming caps)

Medications: including natural and herbal products.

Potentially life-threatening signs and symptoms of anaphylaxis:
The following indicates that there is involvement of the lower respiratory or circulatory system (i.e. anaphylaxis):
- difficulty / noisy breathing
- swelling of tongue
- swelling / tightness in throat
- difficulty talking and/or hoarse voice
- wheeze or persistent cough
- chest tightness
- confusion
- a drop in blood pressure, persistent dizziness, loss of consciousness and/or collapse, or cool, sweaty skin with feeble/thready pulse (shock)
- pale skin and floppiness in young children

Additionally, abdominal pain and vomiting are symptoms of anaphylaxis to insect stings or injected medicines.

Mild or moderate allergic reactions may be limited to the following. Alternatively, these symptoms may precede the onset of anaphylaxis or may occur as part of an anaphylactic reaction:
- swelling of face, lips and eyes
- hives or welts on the skin
- headache
- congestion and watering of the nose and eyes
- anxiety
- flushing
- abdominal pain, nausea, vomiting

Acute treatment of anaphylaxis
Adrenaline is the most important treatment for anaphylaxis and can prevent fatal complications if administered in the early stages of an anaphylactic reaction.

Adrenaline administered by intramuscular injection rapidly reverses the effects of anaphylaxis.
Individuals considered to be at risk of anaphylaxis should carry an adrenaline auto injector device (EpiPen or Anapen) for use in an emergency. Always call 000 if you suspect an individual is having an anaphylactic reaction. If they have an auto injector, assist them in administering it.

A comprehensive management plan for individuals with anaphylaxis should include referral to an allergy specialist.

### Role of Complementary or alternate therapies in treatment

There is no evidence that anaphylaxis can be prevented or treated by complementary or alternate therapies. All individuals who have had an anaphylactic episode or are at risk of anaphylaxis must be assessed by a medical practitioner.

### Referral Pathway

The purpose of this diagram is to advise complementary health practitioners what they should do if they suspect an individual may be at risk of a severe allergic reaction (anaphylaxis).

#### Individual presents to a Complementary Health Care Practitioner

- History of asthma or recurrent wheeze
- Known or suspected allergy to food, insects or other substance
- Generalised skin irritation / eczema
- Any facial swelling
- Acute allergic reaction
- Acute onset hives & swelling

#### General Practitioner or Emergency Department

If history & examination suggest severe allergic reaction (anaphylaxis) specialist referral is required

#### Immunologist/Allergy Specialist

- Skin prick testing
- Risk assessment
- ASCIA Action Plan for Allergic Reaction or ASCIA Action Plan for Anaphylaxis as required, to direct care during an allergic reaction.
- Adrenaline auto injector prescription if necessary.

A copy of the ASCIA Action Plan for Anaphylaxis should always be stored with an adrenaline autoinjector.

### Further Information and Useful Links

- Allergy and Anaphylaxis Australia
  Phone: 1300 728 000
  [www.allergyfacts.org.au](http://www.allergyfacts.org.au)

- The Australasian Society of Clinical Immunology and Allergy (ASCIA)

- NSW Department of Education and Communities

- NSW Ministry of Health

- The Sydney Children’s Hospitals Network

### Reference: