How, and when, to give adrenaline using an auto-injector for allergic reactions

Information for patients
Clinical Immunology and Allergy Unit
What is anaphylaxis?

Anaphylaxis is an acute severe reaction requiring immediate medical attention. During an anaphylactic reaction the body’s immune system triggers an inappropriate response, which may or may not be associated with exposure to a specific substance known as an allergen. Common allergens include certain foods, medicines, latex and insect stings.

When someone develops an anaphylactic reaction, the onset is often fast, affecting the whole body within minutes. Rapidly developing life-threatening problems involving the lungs and blood vessels can make you feel as if you cannot breath or are about to collapse.

The treatment is injected adrenaline, which works rapidly (within minutes) to reduce throat swelling, open up the airways and maintain blood pressure. Adrenaline auto-injectors contain a single, fixed dose of adrenaline designed for use by anyone. Adrenaline is not needed for minor or moderate reactions.

What increases the risk of a severe reaction?

Individuals with asthma and those with a history of previous severe reactions are at greater risk of suffering an anaphylactic episode. You need to be particularly careful to avoid the culprit allergen:

- If you have asthma that is poorly controlled
- If you are suffering from an infection, or have recently had one
- If you exercise just before or just after contact with the allergen
- During festive occasions such as weddings, parties or religious festivals
- When travelling abroad
- During times of emotional stress
- If you have been drinking alcohol
## Emergency treatment plan for allergic reactions:

<table>
<thead>
<tr>
<th>Minor Symptoms</th>
<th>Symptoms</th>
<th>Treatment</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Itching</td>
<td>Short acting Antihistamines, e.g. Chlorphenamine (8mg) or Acrivastine (8mg) or</td>
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<td></td>
<td>Strange metallic taste in the mouth.</td>
<td>Long acting Antihistamines, e.g. Cetirizine (10mg) or Loratadine (10mg) or</td>
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<td>Urticaria (Hives) anywhere on the body.</td>
<td>Fexofenadine (180mg)</td>
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<td>Swelling to the lips, tongue or face.</td>
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<table>
<thead>
<tr>
<th>Moderate Symptoms</th>
<th>Symptoms</th>
<th>Treatment</th>
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<tbody>
<tr>
<td></td>
<td>Difficulty in swallowing or speaking due to a swollen throat or tongue.</td>
<td>Antihistamines (as above)</td>
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<tr>
<td></td>
<td>Mild or moderate difficulty breathing due to a swollen tongue or because of wheezing/asthma.</td>
<td>If suffering from breathing difficulty use a Ventolin or Terbutaline inhaler (2 puffs repeated every 5-10 minutes as required) and Seek medical advice</td>
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<td></td>
<td>Abdominal pain, cramps or diarrhoea.</td>
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<tr>
<td>Severe Symptoms</td>
<td>Rapid onset of severe difficulty in breathing due to wheeze or throat swelling.</td>
<td>You should send someone to dial 999 and call an ambulance. If you are alone, use the adrenaline autoinjector before calling for help.</td>
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<tr>
<td></td>
<td>A sudden feeling of severe faintness.</td>
<td>Lie down and elevate your legs</td>
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<td></td>
<td>Acute collapse.</td>
<td>Use an adrenaline auto-injector in the side of your thigh (page 5). Hold in place for 10 seconds.</td>
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<td>Loss of consciousness.</td>
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</table>
How to use an adrenaline auto-injector:

If you experience symptoms suggesting a severe reaction you should send someone to dial 999 immediately and call an Ambulance. Say the problem is “Anna-phil-axis”. If you are alone, use the adrenaline autoinjected before calling for help.

1. Lie down.
2. Place the tip of the adrenaline auto-injector (the pointy bit) against the big muscle on the front or side of your thigh, holding the auto-injector at right angles to the leg.
3. Remove the safety cap.
4. Press hard and steadily into the thigh until the auto-injector mechanism functions. Keep in place for 10 seconds.
5. Remove the auto-injector from the thigh, massage the injection site for several seconds and note the time. The auto-injector should be removed and discarded safely.
6. Elevate your legs. Do not sit up even if you feel better.
7. If your symptoms do not improve after the first injection, give a second injection after 5-15 minutes (if prescribed by your doctor).
8. Ensure an ambulance is on its way. Stay in position until medical assistance arrives.
9. Auto-injectors need to be discarded in a safe manner. It is advised to give them to ambulance or hospital staff who will discard them for you.

The adrenaline may make you feel that your heart rate has increased, these symptoms will pass quickly.
If in doubt and faced with significant difficulty in breathing or imminent collapse due to allergy, you must use the adrenaline auto-injector.
Using EpiPen®

1. Form a fist around the EpiPen® and pull off the blue safety release.

2. Place the orange end against your outer mid-thigh (with or without clothing).

3. Push down hard until a click is heard or felt. Hold in place for 10 seconds.
   Remove the EpiPen®.
   Massage the injection site for 10 seconds.
Using Emerade®

Remove the needle shield.

Press against the outer mid-thigh (with or without clothing).

Hold for 5 seconds.

Massage the injection site gently.

How many auto-injectors should I carry?

The risk of suffering from a life-threatening reaction varies between patients, as does the need to carry multiple auto-injectors. We will advise you following your consultation.
Please do not hesitate to contact the nurses on C.I.A.U if you require further information regarding your management plan:

- 0114 226 6964

Remember to carry your adrenaline pens with you at all times and ensure they are always in date!