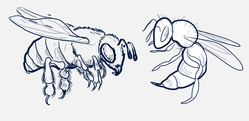
Anaphylaxis – Emergency Action Plan

WHAT ANAPHYLAXIS is defined as a severe, **potentially life-threatening systemic** hypersensitivity reaction. ANAPHYLAXIS is a clinical emergency, as characterized by rapid onset with life-threatening airway, breathing or circulatory problems and is usually, but not always, associated with skin and mucosal changes.

EPIDEMIOLOGY The incidence of ANAPHYLAXIS in Europe is 1.5 to 7.9 per 100'000 person-years. Over the two last decades, an increase in admissions with ANAPHYLAXIS was observed. The prevalence is estimated at 0.3%. The fatality rate for ANAPHYLAXIS is low, <0.001%.

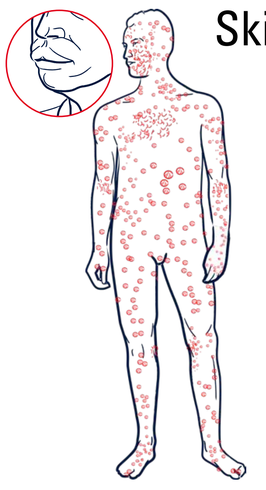
TRIGGERS ANAPHYLAXIS is most often triggered by food allergens, medicaments, insect stings (bee, wasp, …). In up to 20%, the trigger is not identified.





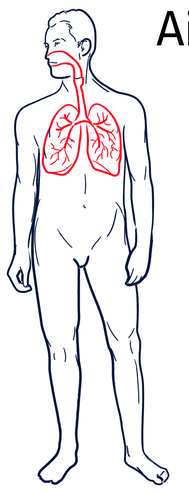
SYMPTOMS

Symptoms of ANAPHYLAXIS usually occur within minutes up to 2 hours of exposure to the allergen (with food allergen, usually within 30 minutes). Biphasic anaphylactic reactions occur in up to 20%, usually within 4–12 hours.



Skin/face (A)

- generalized hives
- pruritus
- flushing
- swelling of face, lips or tongue (angioedema)

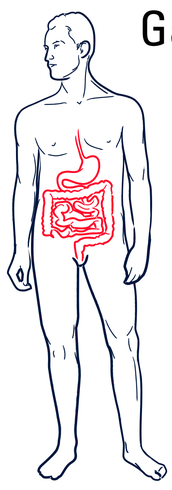


Airways (B)

- dyspnea
- wheeze-bronchospasm
- stridor
- trouble swallowing or speaking
- nasal congestions
- sneezing

Cardiovascular (C)

- tachycardia
- reduced blood pressure
- weakness
- dizziness
- syncope



Gastrointestinal tract (D)

- crampy stomach pain
- crampy abdominal pain
- vomiting
- diarrhea
- incontinence

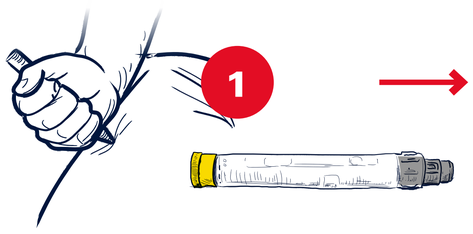
DEFINITION OF ANAPHYLAXIS – THREE CLINICAL PRESENTATIONS

Diagnosis of ANAPHYLAXIS is highly likely when one of the following three criteria is fulfilled:

		Symptoms
I Acute onset of an illness (minutes to several hours)	A. involvement of skin, mucosal, skin-mucosal tissue **plus** at least one of the following: B. respiratory compromise (airways) C. reduced blood pressure or associated cardiovascular symptoms	A + B or A + C or A + B + C
II Two or more of the following rapidly occurring, **after exposure to a likely allergen** (minutes to several hours)	A. involvement of skin-mucosal tissue B. respiratory compromise (airways) C. reduced blood pressure or associated cardiovascular symptoms D. persistent gastrointestinal symptoms	at least A + B or A + C or A + D or B + C or B + D or C + D
III Reduced blood pressure (BP) **after exposure to a known allergen** (minutes to several hours)	– Infants and children: low systolic BP (age specific) or >30% decrease in systolic BP* – Adults: systolic BP of <90 mmHg or >30% decrease from that person's baseline	

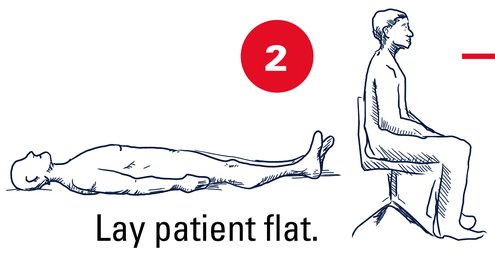
*Definition of low systolic blood pressure for children: <1yr, <70 mmHg; from 1 to 10yrs, < (70 mmHg + 2xage); >11yrs, <90 mmHg

EMERGENCY STEPS for the immediate ANAPHYLAXIS MANAGEMENT (if not in hospital)



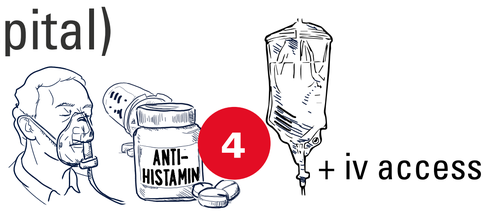
Administer adrenaline at the first signs of ANAPHYLAXIS (using an adrenaline* autoinjector if available).

*7.5 kg to <25 kg: 0.15 mg / ≥25 kg: 0.3 mg



Lay patient flat.
If breathing is difficult, sit up.
Do not let them stand or walk.

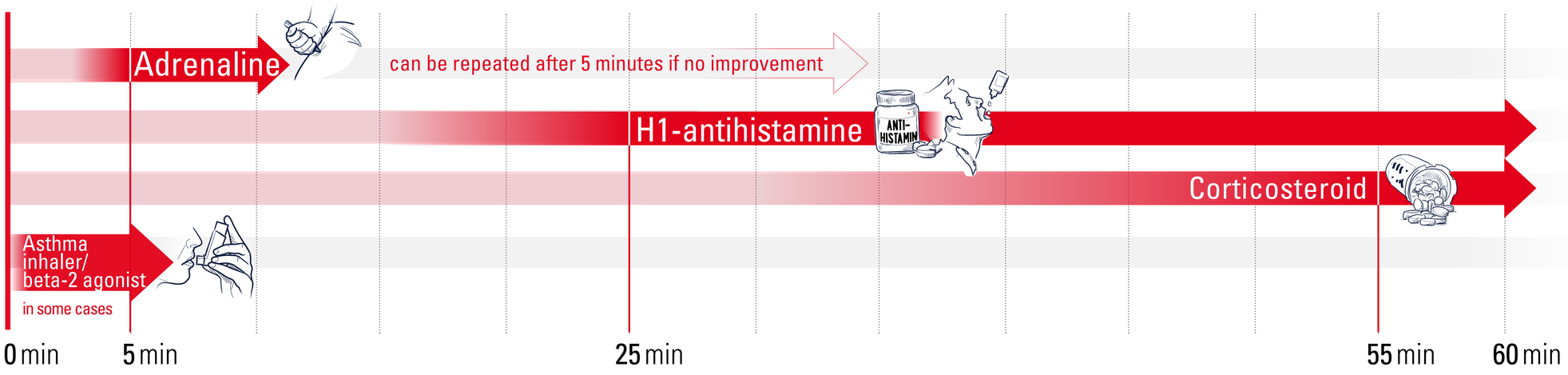
Call ambulance or go to nearest hospital (the reaction could get worse or come back).



Repeat adrenaline as necessary (if there is no improvement with first dose, repeat after at least 5-min interval).
Other treatments as indicated (eg, oxygen, beta-2 agonist, fluids, antihistamine, corticosteroid).

REMARK Acute allergic reactions or warning signs that are not yet potentially life-threatening should be treated immediately after exposure to known trigger with oral H1-antihistamines and, or immediate inhalation of short-acting beta-2 agonists (particularly in patients with asthma).
Serumtryptase: 2–4 h after the incident, taking of a blood sample (serum) for tryptase determination (storage in the refrigerator possible).

EFFECTS OF DRUGS AFTER INJECTION / INTAKE



REMARK: This information, recommendations and charts are meant as a guide for the practicing physician. They rely upon "Muraro A, et al (2014) ANAPHYLAXIS: guidelines from the European Academy of Allergy and Clinical Immunology. Allergy; 69:1026–1045" and on recommendations from Dr. C. Roduit, Prof. Dr. R. Lauener and Prof. Dr. P. Schmid-Grendelmeier.

This notice is intended for physicians and does not relieve from diligent duty of care.

MASTERING ALLERGIES – CHANGING PATIENTS' LIVES

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