

Symptoms After Subcutaneous Immunotherapy

SKIN	RESPIRATORY
<ul style="list-style-type: none"> Swelling, itching, redness, warmth at injection site 	<ul style="list-style-type: none"> Itchy, red, or watery eyes Itchy, watery, runny, or congested nose
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If local reactions large (>10 cm) or symptoms bothersome, consider:

- Reduce or repeat dose
- Pre-dose with 2nd gen AH (e.g. cetirizine) 1-2 h ahead of dose
- Application of ice after injection

SKIN	RESPIRATORY (breathing)	GASTROINTESTINAL (belly)	CARDIOVASCULAR (blood pressure)	NEUROLOGICAL
<ul style="list-style-type: none"> Severe Body Wide Hives 	<ul style="list-style-type: none"> Coughing Wheezing Shortness of breath Throat tightness Trouble swallowing Hoarse voice 	<ul style="list-style-type: none"> Vomit Diarrhea Stomach pain (not distractible) 	<ul style="list-style-type: none"> Sudden sleepiness Difficult to rouse (lethargic) Dizziness Pale or blue color Fainting and/or loss of consciousness 	<ul style="list-style-type: none"> Sudden anxiety Feeling of impending doom
SYMPTOMS ARE SERIOUS				

GIVE EPINEPHRINE (autoinjector or pre drawn syringes) I.M. lateral thigh

Repeat every 5 minutes if ongoing symptoms

AFTER FIRST DOSE EPINEPHRINE:

- If **ANY RESPIRATORY SYMPTOMS** or **HX OF ASTHMA**: give salbutamol
- If **ANY CARDIOVASCULAR SYMPTOMS**: supine position, attempt I.V. or I.O. access and fluid resuscitation ***immediately call 911 – see below**
- If cutaneous symptoms: give 2nd generation antihistamine (e.g. cetirizine 20 mg)

If ANY CARDIOVASCULAR SYMPTOMS or >1 dose of epinephrine required: CALL 911

- Pre-draw at least 1 additional doses of epinephrine to send with EMS
 - MOA to copy anaphylaxis flow sheet to send with patient
 - Call ED Physician to provide handover after EMS departure

Quick Reference Dosing

Epinephrine

- Ampule/syringe: 0.1 mg/kg max 0.5 mg dose
- Autoinjector
 - <20 kg: 0.15 mg
 - 20-50 kg: 0.3 mg
 - >50 kg: 0.5 mg
 - Large body habitus: Emerade device preferred

Salbutamol

- <20 kg: 5 inhalations
- >20 kg: 10 inhalations

Post-anaphylaxis Patient Management

- Arrange debrief with treating allergist to discuss event, possible cofactors, desire to continue treatment and restart dose
- Prescribe epinephrine autoinjector, to be carried to and from SCIT visits
- If bronchospasm during reaction OR history of asthma, evaluate controller medication +/- need for additional medication on day of injections

Safety Checks Before Immunotherapy

- Patient is well
- Patient has very mild symptoms:
 - Runny nose
 - Headache

- If history of anaphylaxis with immunotherapy, confirm autoinjector available
- If on beta-blocker therapy, confirm held on day of immunotherapy OR treating allergist has approved and glucagon is on hand for use in anaphylaxis
- Patient and MD/RN to confirm:
 - Patient name (on vial)
 - Dose (vial and amount – refer to dose administration record)

Administer dose **subcutaneously** into triceps skin fold

Patient to wait in MD office for **30-45 minutes** after administration

- Identified contraindication to immunotherapy**
 - Fever (>38.5C)
 - Vomiting or diarrhea
 - Coughing, breathing difficulties
 - Incomplete asthma control or asthma exacerbation
 - Identified cofactor(s)* of allergic reaction
 - Fever/illness
 - Vigorous activity
 - Excessive heat
 - NSAIDs
 - Alcohol
 - Excessive fatigue (e.g. jet lag, post night shift)

Hold immunotherapy dose

- Optimize asthma control
- Review cofactor avoidance

Re-book visit

**Cofactors can lower the threshold for mast cell degranulation and therefore increase the likelihood of reaction, and should be avoided within a few hours of administration of immunotherapy treatment*