

# *Allergy Basics*

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# Objectives

- Describe common allergic diseases.
- Identify the signs and symptoms of an allergy attack.
- Know what to do if a person has an allergen exposure or allergic attack.

# Allergy Statistics

- 6<sup>th</sup> leading cause of chronic diseases in the U.S. Costing 18 billions annually
- Affects nearly 50 million children and adults.
- Allergic rhinitis is the most common allergic disease, affecting at least 16 percent of the population in U.S.
- Experts estimate food allergy occurs in 6 to 8 percent of children 4 years of age or under, and in 4 percent of adults

# Allergy Statistics

- Allergic drug reactions account for 5 to 10 percent of all adverse drug reactions, with skin reaction being the most common form.
- Approximately 50 anaphylactic insect sting deaths and 100 - 200 food related deaths are recognized each year in the USA.

Source: <http://www.niaid.nih.gov/factsheets/allergystat.htm>

# What Is Allergy?

- Allergy is an abnormal reaction or increased sensitivity to certain substances or "allergens"
- Linked to our immune system
- May involve different parts of the body
- Can be seasonal or perennial

# What happens

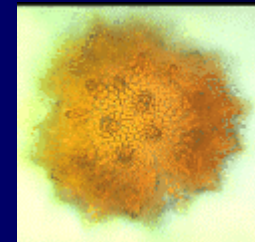
When you are exposed to allergens, your immune system produces antibodies that attach themselves to certain cells in your body. These cells are found in your respiratory and gastrointestinal tracts, in your skin, and also in your blood. As part of the allergic reaction, these cells release potent chemicals such as histamine and other mediators which trigger the symptoms

# What are allergens?

Something we have swallowed, inhaled, touched or a sting by an insect. Almost anything can be allergens

## Common outdoor allergens

- trees
- grass
- weed pollen
- ragweed
- sage or goldenrod pollen
- mold spores
- industrial pollution



# What are allergens?

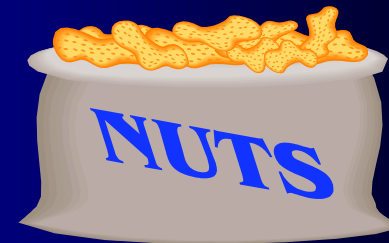
## Common indoor allergens

- house dust
- mold
- feathers
- wool
- cosmetics
- dander or furry pets
- tobacco smoke
- aerosols

# What are allergens?

Most common food allergens responsible for 90% of food allergies:

- Cow's milk
- Eggs
- Peanuts
- Wheat
- Soy
- Fish
- Shellfish
- Tree Nuts



# Who Gets It?

- At least 20-25% of population are affected by allergies
- Largely inherited by one or both parents
  - Both parents-75% chance
  - One parent or relatives- 50% chance
  - 80% children with asthma have allergies
  - 50% adults with asthma have allergies

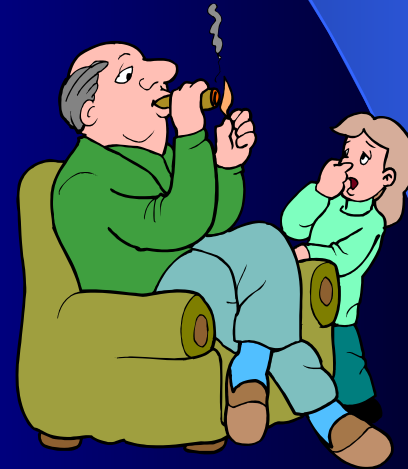


# What are the Symptoms

Symptoms of an allergic reaction depend on the area which is most sensitive

Allergen stimulation in the upper respiratory system can result in:

- sneezing
- runny nose
- nasal congestion
- scratchy throat
- post-nasal drip
- itchy eyes and nose
- watery eyes .



# What are the Symptoms

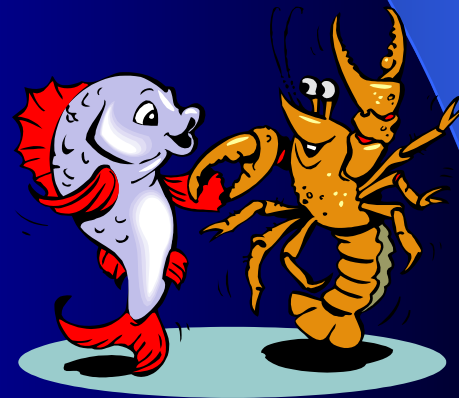
Allergen stimulation in the lower respiratory system may produce:

- chest tightening
- wheezing
- trouble breathing
- coughing

# What are the Symptoms

When allergens stimulate the stomach and intestines, they can cause:

- nausea
- vomiting
- diarrhea
- Hives/skin rash
- Systemic response



# What are the Symptoms

Allergens that are touched:

- rash
- hives



# What are the Symptoms

Common allergies:

- Conjunctivitis
- Rhinitis
- Sinusitis
- Asthma
- Eczema
- Contact dermatitis
- Food allergy

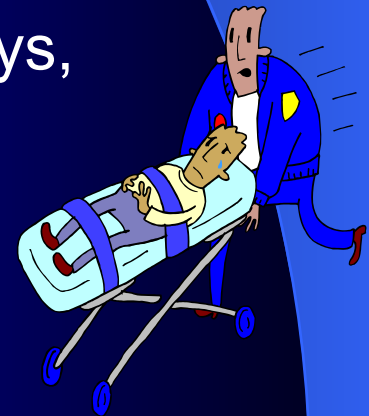
# What are the Symptoms

If you notice tongue swelling, difficulty swallowing, difficulty speaking, or shortness of breath in yourself or others, this may be a severe allergic reaction requiring emergency care from a physician. Get help immediately.

# What are the Symptoms

Anaphylaxis, the most severe allergic reaction, results when an allergen causes a reaction in the circulatory system (blood, heart and chest).

During anaphylaxis, blood vessels relax and lose fluid. This causes blood pressure to drop, which can make you dizzy. The fluid also leaks into surrounding tissues, causing them to swell. If the swelling is severe, it can restrict your airways, making it impossible to breathe.



# Anaphylaxis is a medical emergency!

Common life threatening allergies are:

- Food and insects
- Medications
- May occur with exercise and latex rubber

# How to prevent it?

- You can't prevent allergies.
- You can avoid symptoms by avoiding known allergens.
- Be sure to tell your doctor if you are allergic to any antibiotics or other medications.

# How to prevent it?

If you are allergic to common outdoor allergens -- such as pollen, trees or grass -- there are also some simple steps you can take to find relief:

- Keep your windows closed and avoid spending time outdoors when your allergies are acting up.
- Wear a protective allergy mask when you're doing yard work.
- Avoid fresh-cut grass.
- Be especially cautious on windy days.

# How to treat the symptoms

-Identify the allergens:

- Case history
- Skin prick testing
- Blood test
- Patch testing

-Allergy shots

- Allergen is injected in increasing doses to acclimatize the individual to the offending substance in cases where the allergen cannot be avoided.

# How to treat the symptoms

## Medications:

- anti-inflammatory
- bronchodilator
- antihistamine
- decongestant
- expectorant
- antibiotic
- Epi-Pen

# How to treat the symptoms

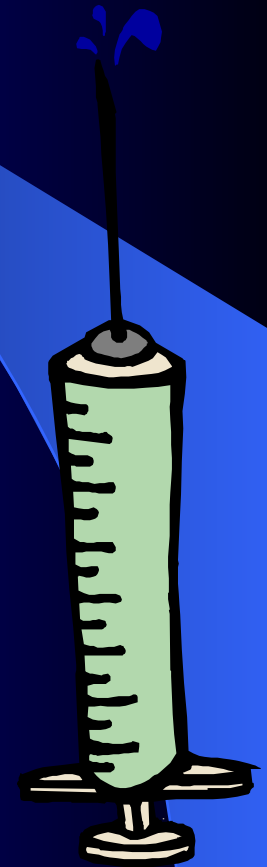
- Epi-Pen

- Should be used in a potentially life threatening allergic reaction

- KNOW HOW TO USE IT

- Seek for immediate medical attention

- Call your physician after each use



# Disclaimer

The purpose of this seminar is for **educational purposes** and is NOT intended as clinical medical advice. The information provided is a general guideline to follow in the care of an individual with an allergic disease. It is **highly recommended** that anyone with **allergies** have a **special individualized care plan** as provided by **his/her physician**.

The End