What is an allergy?

An allergy is a reaction that occurs when the body's natural defenses (immune system) overreact to a foreign substance called an allergen. Allergens themselves are harmless; it is our body's extreme response to them that causes the unwanted symptoms.

How do allergies develop?

At any age our immune system can create unique proteins called antibodies that are programmed to recognize and respond to a specific allergen, even one that we have been around our entire lives. When this occurs, it is called sensitization. The next time the person is exposed to that allergen, the immune system recognizes it and attacks, causing an allergic reaction with associated symptoms. Though anyone can develop allergies at anytime, some families are more prone to them. Individuals do not inherit an allergy to a specific allergen, but the overall likelihood of developing allergies is increased when other family members have allergies.

What are allergens?

Most allergens are proteins. Common sources of allergens include various foods such as peanuts, tree nuts, milk, eggs, fruit, fish, and shellfish. Non-food allergens include pollens, mold spores, dust mites, cockroaches, latex, insect venom (i.e. bee sting), drugs (i.e. penicillin), or animals. Animal allergens are typically found in urine, saliva, skin, and feces; and can be carried on hair and dander (tiny scales from skin, hair, or feathers). Allergens from pets are small and lightweight so once in the air, they can remain suspended for long periods of time eventually settling down on carpets, bedding, furniture, and other items in the home. Additionally, people can carry pet allergens on their hair and clothing.

How common are allergies to pets?

It is estimated that 30 to 40 percent of the world's population suffers from one or more allergic disorders and the prevalence of allergic disease has been rising worldwide. Among U.S. citizens of all ages, allergies are the fifth leading cause of chronic diseases, and asthma (often triggered by allergies) is the third most common chronic disease in children under eighteen years old. In addition, the Asthma and Allergy Foundation of America reports allergies to pets are very common affecting millions of Americans. An estimated 15 to 30 percent of people with allergies have a reaction to cats or dogs, with cat allergies being twice as common as dog allergies.

What are the symptoms of pet allergies?

A common misconception regarding pet allergies is that the development of aches and pains or fever is part of the normal allergic response. That is not true. Pet allergies typically cause nose, eye, skin, and respiratory (lung and throat) symptoms. These may lead to a decreased quality of life, including difficulty sleeping and a lack of energy.

Nose and eye symptoms:
- Sneezing
- Runny or stuffy nose
- Red, itchy, or watery eyes
- Itchy nose, throat, or roof of mouth

Skin symptoms:
- Dry, itchy skin
- Rashes, hives

Those whose pet allergies trigger allergic bronchitis or asthma, may also develop the following

Respiratory symptoms:
- Cough
- Wheezing (whistling sound) when breathing
- Chest tightness
- Shortness of breath

In extreme pet allergy cases, a severe reaction can occur, known as anaphylaxis, in which the allergic individual may experience itching, hives, swelling, respiratory distress, shock, and even death.

In general, symptoms will worsen when a person is exposed to greater amounts of allergens or when several different types are present. Therefore, reducing the exposure to allergens can reduce the severity of the symptoms.

If I am allergic, can I still have a pet?

There are many options for controlling and reducing allergies through reduction of exposure to allergens and/or treatment of symptoms. Therefore, most people are able to keep their pets while managing their allergies.

What should I do if I think I have allergies to my pet?

Some people assume they have a pet allergy based on their symptoms, it is important to see your doctor in order to be certain that you are directing allergy prevention strategies, like those detailed here, at the correct cause of your symptoms.
When laundering bedding, clothing, and other washable items.

Bathe dogs regularly (ideally at least once a week) to remove allergens.

Restrict dogs from rooms where reduced exposure is desired.

Vacuum regularly, at least once a week, with a good vacuum cleaner that is equipped with a HEPA filter to prevent outflow of the contents (including pet allergens) that have been swept up.

Allergic individuals should avoid cleaning and vacuuming themselves, or wear a disposable dust mask (available at the local pharmacy or hardware store) in order to prevent inhalation of pet allergens. After cleaning it will take a few hours for allergens released into the air to settle back onto the surfaces.

In addition to using a HEPA filter in household heating and cooling systems, the use of an air purifier with a HEPA filter in the room where pets spend the most of their time will reduce the concentration of allergens in the air.

When possible, replace carpet with smooth flooring (e.g., wood, tile, linoleum) as carpets are the primary reservoir of allergens in the home.

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**General Household Controls:**
- Avoid “dry” cleaning (brooms and feather dusters) which can aerosolize pet allergens. Instead use statically charged cleaning products (e.g swiffer) and/or clean with wet supplies such as damp cloths and mops which will trap and remove allergens.
- When laundering bedding, clothing, and other washable items (including dog beds) use high temperatures and detergents to remove more allergens.
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- In addition to using a HEPA filter in household heating and cooling systems, the use of an air purifier with a HEPA filter in the room where pets spend the most of their time will reduce the concentration of allergens in the air.
- When possible, replace carpet with smooth flooring (e.g., wood, tile, linoleum) as carpets are the primary reservoir of allergens in the home.

**Dog Specific Controls:**
- Bathe dogs regularly (ideally at least once a week) to remove allergens from their fur. For your dog’s health use a shampoo formulated for dogs; all brands tested perform equally well at reducing allergens.
- Restrict dogs from rooms where reduced exposure is desired (e.g., bedrooms). Airborne dog allergen levels have been found to be much higher in rooms where dogs are physically present.
- Couches have been shown to harbor a large amount of allergens, so it is recommended to keep dogs and other pets off of furniture.
- Always wash your hands immediately after handling your pet.

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**FACT:** The production of dog allergens is not related to hair type or length. Even hairless dogs produce allergens. Some dogs do shed less hair than others and that may impact how widely allergens are spread in the environment; however, even that does not guarantee a reduction in allergen exposure. Regardless of hair characteristics, allergens are still produced in the dog’s saliva and urine.

**Myth:** My dog’s hair/fur causes my allergy symptoms.

**Fact:** The primary dog allergen is produced in the salivary glands making saliva the main source. The allergens can be deposited on the dog’s fur through licking, and once the fur dries, the particles can flake off and become airborne. Additionally, there are other minor allergens also shed by dogs that can trigger allergies. One of the newly discovered allergens is found in dog urine and is believed to contribute to an increasing number of allergic reactions to dogs.

**MYTH:** Hypoallergenic dogs produce no allergens so they do not cause allergies.

**FACT:** All dogs produce allergens. The level of different types of allergens may vary between individual dogs, but this is not due to a specific gender, breed, or breed mix. Some allergic individuals tolerate some dogs better than others due to variations in amounts and types of allergens produced. However, in spite of advertising claims and higher prices, no dogs are truly hypoallergenic.

**MYTH:** The length of my dog’s hair/fur affects the amount of allergen produced.

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