

## Allergic to your rodent or rabbit? Easy tips to prevent and control your allergy

### 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.



**Myth:** *The primary source of allergen from rodents is dander.*

**Fact:** The primary source of allergens from rats and mice is **their urine**, specifically proteins involved in communication, called pheromones. These proteins are so allergenic that approximately 1/3 of people who are most commonly in contact with rodents will develop allergies to them.

**MYTH:** *Male and female rodents shed an equal amount of allergens.*

**FACT:** Because the main purpose of these pheromones is to attract a mate, **male and female rodents produce them in different concentrations**. Male rats and mice not only produce more urine than females, they also generate a higher concentration of allergens. This explains why those who are most commonly in contact with male rodents are more likely to experience allergic symptoms.

**MYTH:** *Rabbits have the same source of allergens as rodents.*

**FACT:** Rabbits are not rodents, and their main source of allergens is different. The primary allergen from rabbits is found in their saliva. Although this allergen can also be found in urine and dander, **the saliva contains the highest concentration and has been shown to be the most potent**.

**MYTH:** *Exposure to rodent and rabbit allergens comes only from touching them*

**FACT:** In addition to direct contact, people can also be exposed to rodent and rabbit allergens that have been aerosolized (carried in the air) from the bedding material. The purpose of bedding in an animal cage is to absorb urine in order to keep the living environment dry and comfortable. However, bedding is also a source of dust particles, and when these dust particles become airborne, so do the accumulated urinary or salivary proteins, making inhalation of allergens possible.

Reduce your exposure to allergens by following the allergy prevention tips below.

Reducing the amount of allergens in your household can dramatically reduce symptoms of allergies. Best results in reducing allergens are found when the recommendations listed here are applied consistently over time. It may take weeks before results are noticed.

Can medical treatment help?

When reducing allergen exposure is not enough, there are many options for controlling allergies and reducing symptoms through medical management. Depending on the severity of signs, over the counter (OTC) medicines may provide temporary allergy relief for symptoms such as runny/itchy nose and throat, sneezing and itchy/watery eyes. **In all cases talking with your doctor is highly recommended; as some people may benefit from prescription medicine, allergy immunotherapy (allergy shots), or other medical treatments.** Some with severe allergies and asthma may be discouraged from owning pets; however, most people can effectively manage their symptoms.

What should I do if I cannot keep my rodent or rabbit?

If prevention and treatment efforts are not enough and your allergy symptoms are severe, you may need to find a new home for your rodent or rabbit. **Ask family and friends about placement options before contacting your local animal shelter.** It is also important to understand that having an allergy to one type of animal increases your risk of allergy to another, but it does not guarantee it. Many people are allergic to rodents or rabbits, but not necessarily allergic to other common pet species.



**Rodent/Rabbit-specific controls:**

- Buy or adopt a female, as they generate much less allergens than males.
- If you are deciding between a mouse and a rat, get a mouse, because mice are less likely to aerosolize allergens than rats.
- Close contact with your face should be discouraged.
- Always wash your hands immediately after handling your pet, after removing gloves, and after cleaning the cage.
- Corncob bedding is recommended over wood shavings, since the corncob bedding is less likely to produce dust that will aerosolize pet allergens. If using wood shavings, fir wood-based bedding produces less dust than other woods.
- Clean small pet cages and change the bedding once or twice a week to avoid accumulation of allergens in the bedding material. Ideally, have someone else in the household who is not allergic clean the cage.
- When cleaning your pet's cage, wear a disposable dust mask (available at the local pharmacy or hardware store) in order to prevent inhalation of pet allergens and wear disposable or

dedicated reusable cleaning gloves to prevent skin contact with allergens.

**General Household Controls:**

- Do not allow pets in the bedroom. This is the room where people typically spend the most time each day, so it is important to reduce allergens in this area.
- 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 the rodent or rabbit is kept will help reduce airborne pet allergens.
- Avoid "dry" cleaning (brooms and feather dusters) which can aerosolize pet allergens. Instead use statically charged cleaning products (eg swiffer) and/or clean with wet supplies such as damp cloths and mops which will trap and remove allergens.
- 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.
- When laundering bedding, clothing, and other washable items use high temperatures and detergents to remove more allergens.