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Dog Tips

# Itchy Pup? This Hidden Bug's to Blame

Is the reason for your itchy pet hiding in plain sight? If so, there are many steps you can take to eliminate these pests from your environment and relieve your pet's symptoms.

### Reviewed by <u>Dr. Becker</u>

## **STORY AT-A-GLANCE**

- When a dog is itchy year-round (vs. seasonally), it's important to check for a potential dust mite allergy
- These pests are most commonly found in the sleeping areas of homes, including in pet beds
- If your dog has a diagnosed dust mite allergy, there are many steps you'll need to take to eliminate the pests from your environment and relieve your pet's symptoms
- One important step is to replace your dog's bed with a safe, nontoxic pet bed made of organic materials like silk, since dust mites can't survive in silk
- You can also consider investing in an air purifier to control dust mites, and switching to nontoxic cleaning agents to lessen your pet's direct contact with skin irritants

### Editor's Note: This article is a reprint. It was originally published July 22, 2022.

House dust mites (Dermatophagoides farinae, Dermatophagoides pteronyssinus) are ubiquitous, but they're so small they can't be seen without a microscope. These "invisible" pests are most commonly found in the sleeping areas of homes, including in pet beds. They're especially fond of moist environments and high humidity, dine on the skin scales and dander shed by both humans and animals, and some dogs develop an allergy to them.

## **The Most Common Environmental Allergen**

According to board-certified veterinary dermatologist Dr. John Gordon, dust mites are the most common environmental allergen in skin-allergy tested dogs.

"A veterinary university study that evaluated the presence of house dust mites in pet beds found a significant increase in the amount of house dust mite allergen collected in pet beds older than one year," he says.<sup>1</sup> "And this was the case no matter the type of bed or how it was cleaned."

In the average home, dust mites are found in materials like carpeting, upholstered furniture, mattresses, bedding, and cloth toys (including dog toys). They thrive in warm, moist air (the kind we and our pets exhale during sleep) and darkness — which is why they are often found in bedding, both yours and your pet's. Their bodies are translucent.

Dust mites survive on a diet of dead skin, bacteria, fungi and viruses in the environment. They prefer to feed on the skin of hypersensitive (allergic) individuals because the lipids in their skin are different from those of nonallergic people and pets. What makes them allergenic is a protein found in their feces.

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Often it's the filling in the bed that causes problems. If filling materials are synthetic or latex memory foam, your dog can be allergic to them. In addition, if he's been using the bed for a period of time, skin cells have accumulated under the fabric covering and on the surface of the foam, which is a magnet for dust mites — especially if there's any moisture on the bed.

In addition to the filling, some outer fabrics are more allergenic than others. As Dr. Hyunmin Kim, veterinary staff manager for the ASPCA Community Medicine Department tells PetMD:

"Manufacturing synthetic fabrics requires certain chemicals and processes. These chemicals, such as flame retardants, are known to be allergenic. Some fabrics also allow the accumulation of dust mites, mold, mildew and bacteria that can exacerbate skin sensitivities."<sup>2</sup>

Dr. Kim recommends cover fabrics made of 100% cotton, hemp (a naturally grown crop that isn't sprayed with pesticides or other chemicals), or a tightly woven microfiber fabric, as these materials are less likely to trigger an allergic response.

## **Diagnosis and Treatment**

When you bring your itchy dog for a checkup, your veterinarian will look for a history that indicates her itchiness is non-seasonal, and is not related to either food sensitivities or skin parasites. Next, your pet should be skin or serum-tested for sensitivity to dust mites.

If she receives a confirmed diagnosis of dust mite allergy, you should first addressing the dust mite load in your home. This is easier said than done, because studies show the most effective method of treatment is to air out fabrics your pet is exposed to on either a hot, sunny or cold, dry day for 12 hours, then vacuuming. Although we can never remove all the dust mites from our home environments, there are many things we can do to reduce their levels, including:

- Switching to mattress covers made of micro-porous fabric ("dust mite covers")
- Disposing of feather pillows, which are typically loaded with dust mites and should not be used around your allergic pet
- Replacing stuffed pet toys with new ones that can be laundered and dried weekly
- Covering your pet's bed in a sheet that repels dust mites and washing it weekly
- Washing bedding in hot water at least monthly, or in cold water and tea tree oil (10 drops per gallon)
- Removing carpets from bedrooms
- Vacuuming all carpets and upholstery often (at least weekly) using a vacuum with a HEPA filter; empty vacuum canisters immediately; if possible, do your cleaning when your allergic pet isn't at home, since

vacuuming and dusting stir up allergens and increase exposure to them

- Steam-cleaning mattresses, pet bedding and upholstered furniture
- Air conditioning and central heating help keep your household humidity low; change or clean filters on air conditioning or heating systems on a regular basis
- Don't confine your dog to a high humidity area of your home, such as the laundry room, bathroom, utility room, or basement

Many veterinarians recommend immunotherapy (allergy shots or under-the-tongue drops) because this approach helps "train" the immune system to be less reactive over time. This is a much safer long term solution than merely suppressing symptoms (via immuno-suppressant drugs like cyclosporine or corticosteroids). It's better to hold off on these powerful drugs that shut down the immune system, and instead, deal with the animal's environment first, in conjunction with some other safe, common sense steps.

These include regular foot soaks and gentle bathing to wash off dust mites and soothe irritated skin; feeding a nutritionally optimal, species-specific, anti-inflammatory diet; providing fresh, good-quality drinking water; and avoiding over-vaccinating/over-medicating to ensure your pet's immune system remains strong and resilient.

You can also consider investing in an air purifier to control dust mites, and switching to nontoxic cleaning agents to lessen your pet's direct contact with skin irritants.

Keep in mind it only takes a miniscule amount of dust mite allergen to create an allergic response in your dog, so the more effective your mite eradication efforts, the more comfortable your allergic pet will be.

## **Replacing Your Dog's Bed**

Since often it's your dog's bed that triggers or exacerbates environmental allergies, especially to dust mites, another step you'll want to consider is replacing the bed he's currently using.

Safe and organic bedding for your animal companion is recommended, which means avoiding the flame retardant chemicals and other toxins often found in commercial pet beds sold at most retail stores, including big box pet stores. Pets who sleep in beds treated with flame-retardants are receiving significant levels of exposure to those chemicals.

One particular type of flame retardant, polybrominated diphenyl ethers, or PBDEs, is a special problem. Studies have linked PBDEs with a number of health problems in both people and pets. Other flame retardant chemicals include boric acid, which is a toxic respiratory irritant; antimony, a metal that is possibly more toxic than mercury; and formaldehyde, a well-known hazardous substance.

If your pet's bedding isn't labeled organic and free of flame-retardants, you can assume it has been treated with these chemicals. Research shows cats have up to 23 times more of these damaging chemicals in their system than kids,<sup>3</sup> so seeking out organic pet accessories is important.

When shopping for a safe dog bed, look for one that hasn't been treated with chemicals, and is preferably made with organic materials that are naturally flame resistant, for example, organic hemp, cotton or silk. Silk is a great material as well because dust mites can't survive in silk.

You also want a bed that's very comfortable and resilient to withstand rough treatment by your dog. Pet beds made with natural fibers are preferable to synthetic pet beds, which as discussed earlier, can exacerbate skin allergies and cause overheating in your pet. Another important feature in a pet bed is a cover that can be easily removed for washing.

#### **Sources and References**

- <sup>1,2</sup> PetMD, September 4, 2018
- <sup>3</sup> Environmental Working Group, April 17, 2008