DUST MITES, PET DANDER, POLLEN & MOLD

FACTS

DUST MITES –

House dust mites are microscope bugs that primarily live on dead skin cells regularly shed from humans and their animal pets. Dust mites are generally harmless to most people. They don't carry diseases, but they can cause allergic reactions in asthmatics and others who are allergic to their feces. People sometimes confuse dust mites with bed bugs. (NOT the same!)

Skin cells and scales, commonly called dander, are often concentrated in lounging areas, mattresses, frequently used furniture and associated carpeted areas, often harbor large numbers of these microscopic mites.

Since the average human sloughs off 1/3 ounce (10 grams) of dead skin a week. That gives dust mites a lot to eat.

Cats and dogs create far more dander for dust mites to eat.

Beds are a prime habitat (where 1/3 of life occurs). A typical used mattress may have anywhere from 100,000 to 10 million mites inside. (Ten percent of the weight of a two year old pillow can be composed of dead mites and their droppings.) Mites prefer warm, moist surroundings such as the inside of a mattress when someone is on it. A favorite food is dander (both human and animal skin flakes). Humans shed about 1/5 ounce of dander (dead skin) each week. About 80 percent of the material seen floating in a sunbeam is actually skin flakes. Also, bedroom carpeting and household upholstery support high mite populations.

For most people, while they are disgusting, house dust mites are not actually harmful. However, the medical significance of house dust mites arises because their microscopic cast skins and feces are a major constituent of house dust that induces allergic reactions in some individuals.

PET DANDER

What Is Pet Dander?

Pet dander is composed of tiny, even microscopic, flecks of skin shed by cats, dogs, rodents, birds and other animals with fur or feathers. These bits of skin can cause reactions in people who are specifically allergic to these triggers.

Which Animals Pose the Biggest Problems?

Cats are kept as pets in 27 percent of homes in the United States and dogs are found in 32 percent. However, roughly twice as many people report allergies to cats when compared to dogs.

Animals with fur may be more likely to carry allergens from other sources, like dust, but the fur itself is generally not a trigger. For that reason, short-haired or hairless animals contribute dander and allergens to indoor air pollution just as effectively as long-haired animals do.

There is no such thing as a non-allergenic dog or cat.

How Do Pet Allergens Occur?

Pet allergens are very light weight and small. They remain suspended in the air for a long time, much longer than allergens from cockroaches or dust mites.

Because of their microscopic size and jagged shape, pet allergens easily stick to furniture, bedding, fabrics and many items carried into and out of the home.

Animal dander is easily spread through the home and out to public places like schools and hospitals. They can be found even in homes and buildings without pets.

POLLEN

What is Pollen?

Plants produce tiny — too tiny to see with the naked eye — round or oval pollen grains to reproduce.. Insects do this job for certain flowering plants, while other plants rely on wind for transport.

The types of pollen that most commonly cause allergic reactions are produced by the plain-looking plants (trees, grasses, and weeds) that do not have showy flowers. These plants make small, light, dry pollen grains that are custom-made for wind transport.

Amazingly, scientists have collected samples of ragweed pollen 400 miles out at sea and 2 miles high in the air. Because airborne pollen can drift for many miles, it does little good to rid an area of an offending plant.

In addition, most allergenic pollen comes from plants that produce it in huge quantities. For example, a single ragweed plant can generate a million grains of pollen a day.

The type of allergens in the pollen is the main factor that determines whether the pollen is likely to cause hay fever.

For example, pine tree pollen is produced in large amounts by a common tree, which would make it a good candidate for causing allergy. It is, however, a relatively rare cause of allergy because the types of allergens in pine pollen appear to make it less allergenic.

Among North American plants, weeds are the most prolific producers of allergenic pollen. Ragweed is the major culprit, but other important sources are sagebrush, redroot pigweed, lamb's quarters, Russian thistle (tumbleweed), and English plantain.

Grasses and trees, too, are important sources of allergenic pollens. Although more than 1,000 species of grass grow in North America, only a few produce highly allergenic pollen.

It is common to hear people say they are allergic to colorful or scented flowers like roses. In fact, only florists, gardeners, and others who have prolonged, close contact with flowers are likely to be sensitive to pollen from these plants.

MOLD

Where do molds grow?

Molds can be found wherever there is moisture, oxygen, and a source of the few other chemicals they need.

In the fall, they grow on rotting logs and fallen leaves, especially in moist, shady areas. In gardens they can be found in compost piles and on certain grasses and weeds.

Some molds attach to grains such as wheat, oats, barley, and corn, which makes farms, grain bins, and silos likely places to find mold.

Hot spots of mold growth in the home include damp basements and closets, bathrooms (especially shower stalls), places where fresh food is stored, refrigerator drip trays, house plants, air conditioners, humidifiers, garbage pails, mattresses, upholstered furniture, and old foam rubber pillows.

Molds also like bakeries, breweries, barns, dairies, and greenhouses. Loggers, mill workers, carpenters, furniture repairers, and upholsterers often work in moldy environments.

What molds are allergenic?

Like pollens, mold spores are important airborne allergens only if they are abundant, easily carried by air currents, and allergenic in their chemical makeup.

Found almost everywhere, mold spores in some areas are so numerous they often outnumber the pollens in the air. Fortunately, however, only a few dozen different types are significant allergens.

In general, *Alternaria* and *Cladosporium* (Hormodendrum) are the molds most commonly found both indoors and outdoors in the United States. *Aspergillus, Penicillium, Helminthosporium, Epicoccum, Fusarium, Mucor, Rhizopus,* and*Aureobasidium (Pullularia)* are common as well.