Mites, and their close relatives the ticks, have four pairs of legs (only three pairs in the larval stage). Mites are very small, nearly invisible to the unaided eye. Adult ticks are somewhat larger, about 1/16 to 1/4 inch long when unfed. Larval ticks, however, can be quite small.

The following mites and ticks can bite people or otherwise affect human health.

- bird & rat mites
- grain mites
- straw-itch mites
- scabies mites
- chiggers
- soft ticks
- hard ticks

**Bird mites and rat mites.** Some mites that are normally parasitic on wild birds and domestic fowl may bite humans and produce an intensely itchy rash. Individual bites may be marked with a tiny, clear blister. These mites migrate out of bird nests during the late spring and summer months, usually after the young birds have left. The mites may be visible as dots, moving across walls near windows or at other openings to the outside.

Remove vacant bird nests near the house and cut back tree limbs that touch the sides of the house. Move chicken coops well away from human habitation.

A mite found on rats and in their nests can bite like bird mites. When controlling rats first destroy any nests that may be present. Otherwise, the nests may become a source of mites.

**Grain mites.** Individuals handling grain, dried fruit, or hay for animal feed may develop a rash and/or respiratory symptoms caused by mites. These mites are especially common where mold occurs. Dry out the material by better ventilation or temperature control. This will help eliminate the mold and reduce the allergy-causing mites.

**Straw-itch mites.** This mite is actually a parasite of grain moths, weevils, or other insects infesting stored grain. The mite may be present in huge numbers in heavily infested grain. This mite will bite anyone handling the grain. Bites produce a severe, itchy rash. The best way to control this mite is to control the grain-infesting insect.

**Scabies mite.** This parasite burrows into human skin and produces a persistent, intensely itchy rash often in the form of grayish lines. Diagnosis is usually made by a physician and may require a skin scraping to reveal the mite. Transmission of these delicate mites requires close contact between individuals. The strain of scabies mite specific to dogs (causing one kind of mange) occasionally is trans-
mitted from pet to human.

**Chiggers.** These mites are parasites as larvae. They occur in grassy areas, scrub, and forest edges, or roads through forest (rather than the deep forest itself); hence such common names as harvest mites and scrub itch. Chiggers feed on skin tissue over a period of several days. They tend to settle in areas of constricted clothing, such as the top of socks and the belt line. The bites become intensely itchy, typically starting a day or two after contact. Scratching aggravates the itching and produces sores that may become sites of secondary bacterial infection. Over-the-counter ointments will reduce itching from chigger bites. Bites can be largely avoided by putting pant legs into boots and using repellents containing DEET.

“**Remove tick as soon as possible. ...pull it straight out from the skin ...**”

**Soft ticks.** These leathery-skinned, blood-sucking parasites are most often encountered in natural areas, associated with rodent nests, sea bird colonies, bat caves, and deer bedding areas, among others. Because rodents sometimes nest in cabins, ticks may be common there as well. Some soft ticks transmit disease. Ticks should be removed from you and your pets immediately when found (see below).

**Hard ticks.** These are the ticks that most people encounter during the warm months of the year. They are called “hard” because some or all of the back is covered by a stiff shield. Each life stage climbs onto vegetation such as tall grass and waits for a host animal to come into contact. Once on the host, the tick fixes its mouthparts firmly in the skin and will engorge (fill with blood) over several days to a week before detaching. Hard ticks transmit a number of diseases (for example, Lyme disease, Rocky Mountain spotted fever) and may also cause a toxic reaction.

Remove ticks as soon as possible. To remove a tick, use a constant, steady force to pull it straight out from the skin, grasping the tick either with tweezers or a piece of tissue paper over the fingers. Avoid breaking off the mouthparts in the skin (which may cause secondary infection) but the important thing is to **remove the tick immediately.**

Also, avoid squeezing the tick as this may force tick contents (including disease organisms) into your skin. Other methods of tick removal, including twisting (“unscrewing”), heating, and covering with oil or wax, are not recommended.

The same methods of sealing off clothing and using repellents that were mentioned above for chiggers are also effective in preventing tick attachment. See www.LivingWithBugs.com for additional information.