

Wisconsin Meat Facts and Analysis

Fact Sheet ME 89-3 (Rev.)

LYME DISEASE, DEER HUNTING AND VENISON SAFETY

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Lyme disease is an infectious bacterial disease spread primarily by ticks commonly found on numerous animals in the wild including deer. The major natural reservoir of the Lyme disease bacterium is the white-footed mouse. Deer serve as a large animal host for ticks and may attract large numbers of deer ticks under favorable conditions. The disease occurs in almost all Wisconsin counties except a few in the southeastern portion of the state.

The disease is being studied at a number of medical centers in Wisconsin as well as the UW Department of Entomology, Food Science and the School of Veterinary Medicine. Although much information is available about Lyme Disease, many questions still remain unanswered. The following information relates to deer hunting and venison processing.

1. The bacterium which causes the disease has been found in deer ticks (also called bear ticks). Many but not all deer ticks carry the causative organism. Deer ticks found on the western side of the state seem to be more highly infected with the organism than those found on the eastern side of the state. In a few rare instances, the Lyme organism has been found in other tick species, but there is no evidence that these types of ticks transmit the disease to humans. The species of tick and its location in the state are directly related to the number of Lyme cases.
2. There is no evidence to date that the disease can be transmitted by handling venison or coming in contact with deer meat or blood, although hypothetically this would seem possible. Some people have suggested hunters and processors wear rubber gloves while dressing out deer carcasses as a precautionary measure. The main threat in working with venison comes from having the ticks transfer from the deer to people. Long sleeves and long pants with tight fitting cuffs are recommended when handling deer carcasses. A daily check of the entire human body for ticks is also a good idea. These preventive measures are recommended even if a hunter doesn't contact a deer, since the ticks can also be picked up by walking through the woods. A deer tick requires 24 hours or more of feeding on the host before it transmits the organism. Therefore, regular skin checks offer a measure of protection from contracting the disease.
3. Ticks are most likely to bite people from April through October although ticks can be found each month. Some ticks may persist on deer in cold

weather. Ticks eventually drop off the dead host; however, many can linger on the hide, and pose a threat in this way.

4. Unattached ticks can be simply brushed off the skin. Imbedded ticks should be removed by grasping them with a tweezers and tugging gently but firmly at the place where the barb enters the skin. Ticks must attach and feed (24 or more hours) to transmit the organism. Follow removal by washing affected skin with soap and water or alcohol. Save the tick in a plastic vial containing moistened tissue paper for possible later identification or to determine if it is infected.
5. If the bacterium should survive in the raw meat of deer, it would be destroyed by cooking to 160°F (medium degree of doneness) or higher. Although some venison summer sausages may be heated to only 145°F, these products should be safe because their cooking process is relatively slow, and the combined effect of longer heating times at lower temperatures is sufficient to destroy the Lyme organism if it should be present.
6. Know the symptoms of Lyme disease for early detection. These signs may include a red rash at the bite site (and possibly other body areas), fatigue, stiff neck, headache, and generally not feeling well. Some Lyme patients develop arthritis and heart rhythm abnormalities. Others may develop nervous system problems such as Bell's Palsy (weakness of muscles on one side of face) or symptoms of a pinched nerve. Lyme disease is treatable with antibiotics.

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