GENERAL INFORMATION

General
Ticks are blood-sucking arthropods. The major families of ticks include the Ixodidae or hard ticks, which have thick outer shells made of chitin, and Argasidae or soft ticks, which have a membranous outer surface. Soft ticks typically live in crevices and emerge briefly to feed, while hard ticks will attach themselves to the skin of a host for long periods of time.

Habitat
Ticks do not fly, jump, or fall out of trees! They are usually found in grassy areas, in brush, or in a wooded area. They wait on the tips of vegetation for a human or other animal host to pass by. As the host brushes against it, the tick makes contact, looks for a suitable location, and begins the feeding process.

Behavior
Contrary to popular belief, ticks DO NOT imbed their heads in skin. Ticks are equipped with mouthparts adapted to penetrate and hold fast in the skin of its host. Additionally, they secrete a cement-like material that helps them stay attached to their host.

Life Cycle
Ticks go through a four stage life cycle including egg, larva, nymph and adult. Both males and females in the last three stages require a blood meal. The photo at right shows, beginning on the left, the tick life stages of larva, nymph and adult on an adult thumb.
**Brown Dog Tick**

*Rhipicephalus sanguineus.* This tick is usually found in dog kennels and homes year round. The female can produce up to 4000 eggs at one time. Larvae, nymphs and adults feed on dogs but are occasionally found on goats, cats and humans.

**Pacific Coast Tick**

*Dermacentor occidentalis.* This tick is usually found in areas with high humidity from November to June. The female can produce up to 4500 eggs at one time. Larvae feed on small rodents while adults feed on large mammals, especially deer.

**American Dog Tick**

*Dermacentor variabilis.* This tick is usually found from May to August. The female can produce up to 6500 eggs at one time. Larvae, nymphs and adults feed on larger mammals, especially dogs.

**Disease Transmission**

Ticks carry various agents that can cause disease in humans and animals. Inform your physician immediately if you develop any of the symptoms listed in this brochure after finding a tick attached to your skin or being in an area where ticks are known to occur.

**Personal Protection**

**Avoid the Area**

The best protection from ticks is to avoid coming into contact with them.

**Landscape Management**

Around the home, you can discourage ticks by managing your landscape:

- Keep grass mowed low
- Cut back dense shrubs
- Remove leaf piles

**Remain Cautious While Outdoors**

When camping, hiking or being outdoors in areas with ticks stay aware of your surroundings:

- Stay on groomed trails
- Wear long pants
- Wear light colored clothing
- Tuck pants into sock

**Perform tick checks!**

After potential exposures, perform thorough tick checks. Check everyone in your family including the family pet.

**Tick Removal**

- Using tweezers, grasp the tick’s mouthparts as close to the skin as possible
- Gently pull the tick straight out with steady pressure
- DO NOT twist or jerk the tick, or try to remove by burning or applying Vaseline, kerosene, etc., as this may cause the release of infectious tick fluids
- Apply an antiseptic to the bite area after removing the tick
- Wash your hands with soap and water
- Save the tick for identification. Contact your local Vector Control District or County Health Department for tick identification.

**Tick-Borne Diseases**

**General**

Hard ticks can transmit human diseases such as Lyme disease, Rocky Mountain spotted fever, tularemia and several forms of ehrlichiosis. Additionally, they are responsible for transmitting livestock and pet diseases, including babesiosis, anaplasmosis and cytauxzoonosis. Soft ticks can transmit relapsing fever spirochetes such as *Borrelia turicatae* and *Borrelia hermsii*.

**Babesiosis**

Babesiosis is a malaria-like infection caused by a protozoan that parasitizes red blood cells. Transmission is primarily by the black-legged tick. Babesiosis often causes flu-like symptoms (fever, chills, fatigue) and a breakdown of red blood cells.

**Ehrlichiosis**

Ehrlichiosis is caused by a microorganism called rickettsia. Transmission is primarily by the brown dog tick. Ehrlichiosis often causes flu-like symptoms (fever, chills, fatigue) with possibility for anemia, lung infection, decrease in platelets or elevated liver enzymes.

**Lyme Disease**

Lyme disease is a bacterial infection. The bacteria that causes Lyme disease is called *Borrelia burgdorferi*. Transmission is primarily by the black-legged tick. Early symptoms of Lyme disease may include headache and muscle aches, sore throat, nausea, fever, stiff neck or fatigue. About 80 percent of those infected develop a rash at the bite site, which sometimes resembles a “bull’s eye.” Later symptoms may involve numbness or tingling of the limbs, joint swelling and pain, memory loss, and/or mood swings.