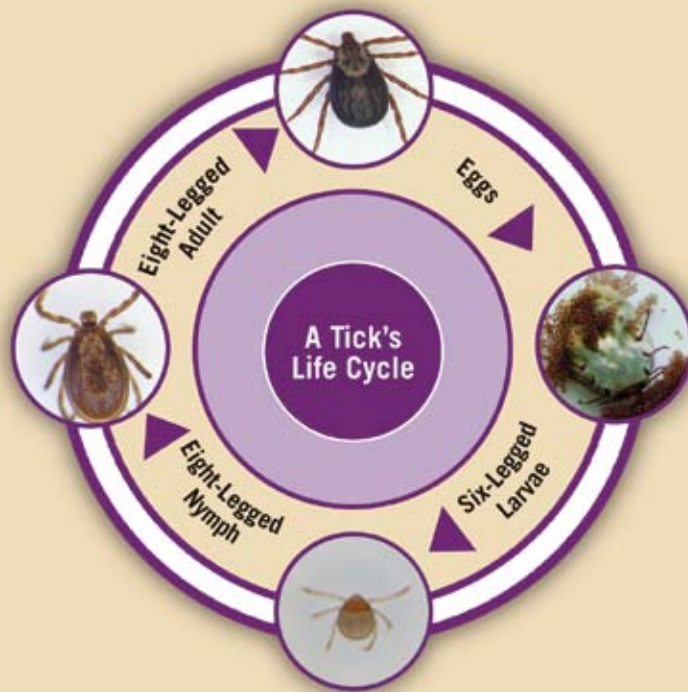


Tick Biology



Typical Life Stages

The larval, nymph and adult stages all feed on mammals (including pets and humans)



Diagnosis of Lyme Disease, Ehrlichiosis, and Anaplasmosis

Snap 3DX and Snap 4DX tests distinguish antibodies caused by infection—as opposed to vaccination

However, note that a positive serologic test may not confirm that presenting signs are caused by the detected organism.

Tick-Borne Diseases of Companion Animals

- Lyme Disease
- Rocky Mountain Spotted Fever
- Babesiosis
- Ehrlichiosis
- Cytauxzoonosis
- Hepatozoonosis
- Tick Paralysis
- Anaplasmosis

Tick-Borne Diseases of Humans

- Lyme Disease
- Rocky Mountain Spotted Fever
- Babesiosis
- Ehrlichiosis
- Relapsing Fever
- Colorado Tick Fever
- Tularemia
- Tick Paralysis
- Anaplasmosis

On-Animal Tick Control Products

For a product to be successful in preventing disease transmission of tick-borne diseases, it must prevent biting, repel ticks, or kill them quickly, before they take a blood meal. (Levy)



Outdoor Tick Control

Ticks prefer moist, shady areas, so keep areas dry, remove wood piles, keep grass mowed and weeds cut.

- Clean up items (such as bird seed) that attract hosts (rodents, possum, deer) upon which ticks can feed.
- Utilize yard sprays at the edge of yards where shrubs and shady areas exist.



Tick Biology



Nearly-Perfect Vectors of Pathogens

Did you know that ticks:

- Are not insects, but arthropods, like spiders and mites.



- Transmit more pathogens than any other arthropod.

- Are second only to mosquitoes as vectors of pathogens, including:

- Viruses
- Protozoa
- Fungi
- Bacteria
- Helminths

- May transmit pathogens to hosts in as little as 4 hours.



- Can produce paralytic neurotoxins.

- Can live up to several years (hard ticks) or even several decades (soft ticks).

- Are very diverse, and include some 850 species.



- Exhibit behavior known as “questing,” crawling upward on grasses or shrubs, and waving their legs in order to attach to a passing host.



- Respond to stimuli that signal a possible host, such as CO₂, heat, and movement.

- Can ingest a volume of blood from 200 to 600 times their body weight.



- Have particularly long blood-feeding periods, yet can survive long starvation periods.

- May produce a glue-like substance called cementum to assure they remain tenaciously attached.



- Have high reproductive capacities (able to lay up to 22,000 eggs at one time).