

## Prevention and Treatment of Tick Bites

The level of awareness and information dissemination on tick bites has never been higher. Although ticks are thought to be insects they are actually arachnoids, like spiders, mites and scorpions. The CDC has issued an alert to draw attention to the unforeseen increase of tick bite incidents, the emergence of new tick species that were never seen before in parts of the Northeast and the sharp rise in incidence of tick-borne illnesses. According to a new CDC study, it is estimated that there are 300,000 new cases of Lyme disease per year and the actual numbers could be higher. Certain tick species are more likely to transmit certain diseases. It is very helpful to be aware of your surroundings if you spend time outdoors and also of the type of ticks you may encounter. This can be helpful in predicting the potential pathogens transmitted. It is noteworthy that most infections are transmitted by immature ticks (infected nymphs and young ticks). Ticks find their hosts by sensing body temperature, breathe (CO<sub>2</sub>) or vibration. They stand on the tips of high grass ready to latch onto the next victim. Once they latch on to the victim, they look for areas of soft skin and start feeding within 10 minutes to 2 hours. They are often found in the hair line, behind ears, in the groin area and under armpits.

### The most common tick species in the US responsible for tick bites:



**Brown Dog Tick (*Rhipicephalus sanguineus*)**– likely to transmit Rickettsia – the cause of Rocky Mountain Spotted fever and Tularemia.



**Groundhog Tick – Also called Woodchuck Tick (*Ixodes cookei*)** - likely to transmit Powassan Virus



**American Dog Tick (*Dermacentor variabilis*)**– likely to carry Rickettsia – the cause of Rocky Mountain Spotted fever and Tularemia



**Deer Tick - Blacklegged Tick (*Ixodes scapularis*)**– likely to transmit Lyme and Babesia (among other tick borne illnesses)



**Lone Star Tick (*Amblyomma americanum*)**– likely to transmit Ehrlichiosis and Southern tick associated rash illness (STARI). It can also cause meat allergy in rare cases.