**Ask the Pharmacist**

**Ticks & Bacterial Disease**

**TICKS:** Ticks are small, especially before they stick their heads into your skin and are drinking your fluids. You need to check yourself carefully when you come in from outside in the woods or grassy areas.

**BLACKLEGGED TICK (Ixodes scapularis)**

- adult female
- adult male
- nymph
- larva

**LYME DISEASE:** Lyme disease is caused by *Borrelia burgdorferi* bacteria that is injected into you from a tick. Typical symptoms of Lyme disease include fever, headache, fatigue, and a characteristic skin rash (see below). If left untreated, infection can spread to joints, the heart, and the nervous system. Most cases of Lyme disease can be treated successfully with a few weeks of antibiotics and is most effective if therapy is started earlier in the course of therapy.

**REMOVING TICKS:** Pull slowly using increasing direct pressure, don’t twist or jerk. Never coat the tick with oil or petroleum jelly and don’t try to burn the tick. This increased the risk of having the tick introduce bacteria into your body.
Target Rash: May mean that you have Lyme Disease. See your doctor right away to avoid more serious adverse events.

ROCKY MOUNTAIN SPOTTED FEVER: Rocky Mountain spotted fever is caused by *Rickettsia rickettsii* bacteria that is injected into your skin from a tick. Typical symptoms include: fever, headache, abdominal pain, vomiting, and muscle pain. A rash may also develop, but is often absent in the first few days. Rocky Mountain spotted fever can be a severe or even fatal illness if not treated in the first few days of symptoms. Doxycycline is the first line treatment for adults and children of all ages, and is most effective if started before the fifth day of symptoms.

Gritty Rash: This is the typical later stage rash. Earlier on, the rash is much lighter and feels bumpy to the touch around the area. Not everyone gets a rash.