

# Warning to People Working in the Field: Mosquito- and Tick-Borne Illnesses Are No Joke!

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If you make your living installing, inspecting, designing, demonstrating, or doing anything else that requires you to be outdoors in fields, gardens, high brush, woods, territory close to still or sluggish water, etc., the information that follows could help you avoid ending up how I ended up. I was flat on my back in a hospital bed with a raging headache, high fever, low blood pressure and white count, one arm hooked to an IV apparatus, the other being stabbed by a lab technician—well, you get the picture.

I had an unusually severe case of an infection that is one of many caused by tick bites and mosquito bites. The infections are of two types:

1. Viral—caused by a virus, in this context Arbovirus
2. Bacterial—caused by bacteria, in this context Ehrlichia

The Arbovirus is maintained in nature by biological transmission via blood-feeding arthropods (mosquitoes and ticks). In most humans, the infections are asymptomatic or result in a

non-specific flu-like syndrome. Sometime, as in my case, symptoms have a quick onset with fever, headache, myalgia, malaise, and prostration. Occasionally, the infection leads to Encephalitis (swelling of the brain), which can cause death.

The Ehrlichia bacteria also maintain biological transmission via blood-feeding arthropods but not via the mosquito. Symptoms are similar to the quick-onset symptoms of the Arbovirus infection, but in the Ehrlichiosis case there is an incubation time of 5 to 10 days after the tick bite. Untreated, Ehrlichiosis can be a very severe disease—as many as 50% of patients require hospitalization. Mortality is generally 2% to 3%, but immune-compromised patients have a significantly higher risk of death.

The key to preventing both tick- and mosquito-borne infections is to avoid exposure. However, in the work that we do in the onsite industry, that is next to impossible. So, personal protection becomes the most important key (see tips below).

Mosquito- and tick-borne illnesses can make you really sick in a really short time. Consider where you will be working and take the appropriate personal protection. Don't end up flat on your back like I did! ■

## How to Protect Yourself from Exposure to Ticks and Mosquitoes

- Wear light-colored, long-sleeved clothing. This will help you to see ticks crawling on your clothing, as well as protect you from mosquitoes.
- Tuck your pants into your socks or boots so that ticks cannot crawl up your legs.
- Use an insect repellent that contains DEET and reapply every couple of hours. Apply the repellent liberally on your footwear and lower clothing.
- Upon returning from the field excursion, immediately conduct a tick check on your clothing and remove any that you find. Later, at home, conduct a tick check on your whole body and remove any ticks that you find.
- If you find a tick “dug in,” carefully remove it, keeping the head intact, and place it into a Ziploc bag; label and date the bag; put the bag in the freezer. If you become ill, the specimen may be of diagnostic value.