

## Ticks and Mosquitoes Are Going to Have a Field Day

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The usual disclaimer: this document should not be considered actual medical advice. Questions or concerns should be discussed with one's health care provider.

**Why is this an issue?** There are 15 species of ticks in Virginia, and we are expecting a heavy tick season in this year. Three species "commonly" bite humans. Ticks are second only to mosquitoes as vectors of human disease. Speaking of which, there are at least two species of mosquitoes in Virginia that are capable of infecting humans (with West Nile, chikungunya). We are human; we wander around in tall grass (e.g. Marshall Manor); we wander around near pools of water; we smell good to bugs.

**Executive summary:** Avoid ticks and mosquitoes. Do careful tick checks. Remove ticks carefully. Remain alert for fevers, *with or without rashes*, after exposure

**Style tips for the bug-averse:** Apply insect repellent to clothes. I recommend permethrin, which is less toxic than DEET and lasts through several washings. Wear light-colored clothing (makes ticks easier to spot). Wear long sleeved shirts and long pants (yes, I know it is hot and humid). Tuck pants into socks/boots. Ticks start on your shoes and crawl up, but if your pants are tucked in, they have to work harder to find your skin, and they are more exposed to the permethrin.

**Insect repellent:** DEET (~25%, e.g. Deep Woods Off®) is traditionally considered the best bet. It can be toxic to babies and the elderly (which may explain certain features of the AARC). In its July Issue, Consumer Reports tested a number of nonDEET repellents and found several to be equally effective. These are based on picardin 20% and lemon eucalyptus 30%. In CR's tests, they were found to be as effective as DEET-containing products. I have no conflicts of interest to report, but I note that CR recommended: Sawyer Fisherman's Formula Picardin®, Repel Lemon Eucalyptus®, Repel Scented Family®, and Natrepel 8 hour®.

**If you notice a tick, remove it on-site.** I will bring a tick-removal device. **Gentle removal!** Do not squeeze the tick. RMSF and tularemia have been contracted by squishing. K4JEC says: "Gently convince the tick that it will either let go or will lose its head." Do not apply Vaseline®. Do not apply gasoline, ether, or lighter fluid. Do not apply a lighted cigarette or the antenna tip of a keyed-down HT. Definitely do not apply gasoline, ether, or lighter fluid and then apply a lighted cigarette.

**Afterward:** Remove clothing promptly (really, do try this at home, not on site), which facilitates a careful tick check, which can be more effective (and more fun) with help. Note especially the thigh, groin, axilla, and scalp. Launder clothing, to remove any DEET (and sweat – remember the long sleeves). Circle any tick bites, and follow them daily. Promptness is a virtue, but note that ticks must be attached for: 36 hours to transmit Lyme disease, 24 hours for ehrlichiosis and Anaplasmosis (Rocky Mountain Spotless Fevers), and 6 hours for Rocky Mountain Spotted Fever.

**Final words:** Don't confuse tick with chiggers, which are larval mites and although annoying, do not spread disease *Take seriously a fever in Virginia in the summertime even without a rash or history of tick bite!*