

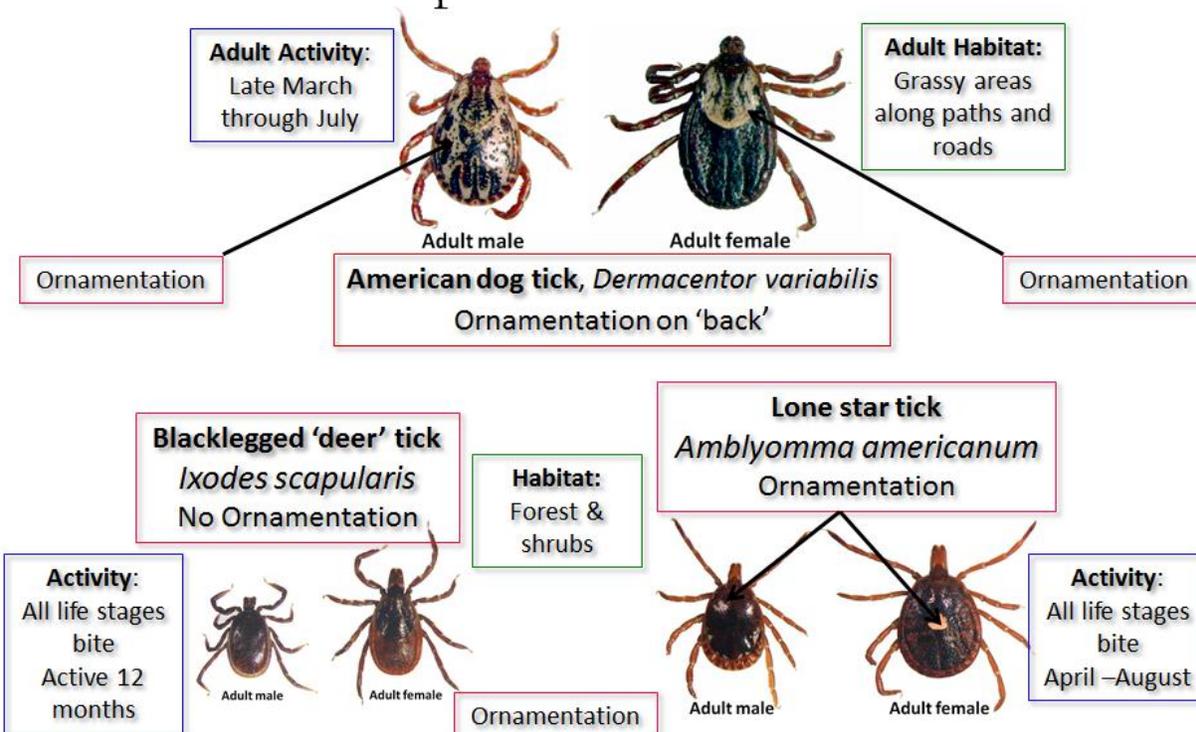
PROPER TICK REMOVAL AND PREVENTION

by
Dominique Richard © 2017

Squatting and the squatters can take on a variety of forms. Ticks and Mosquitoes are such squatters, finding their way onto our skin as the host and known to wreck the health and lives of those who are not promptly treated. These notorious squatters are carriers of many different types of pathogens causing devastating long-term consequences, leaving their hosts with debilitating neurological and musculoskeletal damages and chronic pain.

Three Ticks of Public Health Importance

Spot Identification



© G.R. Needham, The Ohio State University

Photos courtesy the Tick Research Laboratory, Texas A&M University
<http://tickapp.tamu.edu/>

The goal is to take the necessary steps to prevent these squatters from using us as their hosts with effective repellency that is safe and nontoxic to humans. The well-known repellent DEET 30% or permethrin, or Frontline for our pets, are not only toxic but also neurotoxic, carcinogenic to both humans and animals. As if we were not already sufficiently exposed to pollutants, here come some more by the truckload and their nauseating noxious fumes.

Since these pests transmit more than ten potentially-dangerous diseases to their human hosts, as well as our beloved pets, it is important to pay immediate attention. Early recognition and treatment can decrease the risks of serious complications later.

Ultimately, the first very best thing to do is to avoid a tick from ever squatting residence onto our skin or a mosquito from making a successful landing and feed. Both insects are blood feeders – in other words, *vampires*.

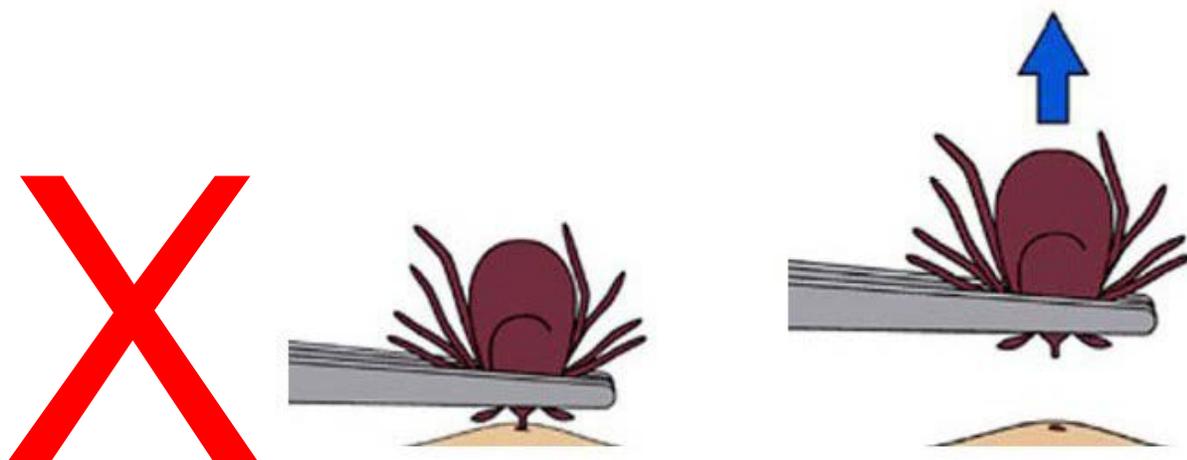
Personal protection remains the most reliable method of tick-borne disease prevention: clothing and spraying yourself daily and repeatedly with a repellent that is non-toxic and that does not cause eventual resistance, because ticks and mosquitoes are smart – their pathogens that cause infections eventually can become resistant to treatment. So, our best first line of defense and prevention is repellency, which includes the use of protective clothing, and checking the entire body for ticks after outdoor activities, and prompt, proper removal of attached ticks before transmission of pathogens can occur.

The KEY phrases for this entire article are **Prevention by Repellency** (our recommended repellent is described later in this article) and **Active Surveillance** – checking your body daily when spending time in the country, where ticks and deer are prevalent. Note that having mice infestation is also worrisome for transmitting ticks. Furthermore, your pets bring these ticks into your home. Never be passive about tick surveillance, especially when you spend time outside of the city, in the countryside and have been outdoors. Ticks are everywhere, even entering your front door under that small crack. Beware that ticks are expert squatters and don't pay rent and can wreck your health and livelihood. Ticks travel in your luggage, and you import them into areas that were never before infected – this is a major concern of travel: spreading disease that otherwise was once confined or quarantined to a specific region.

If your active surveillance leads to the discovery of a tick, you should quickly remove it, handle it carefully and save it for testing, and get treatment as needed, as described below:

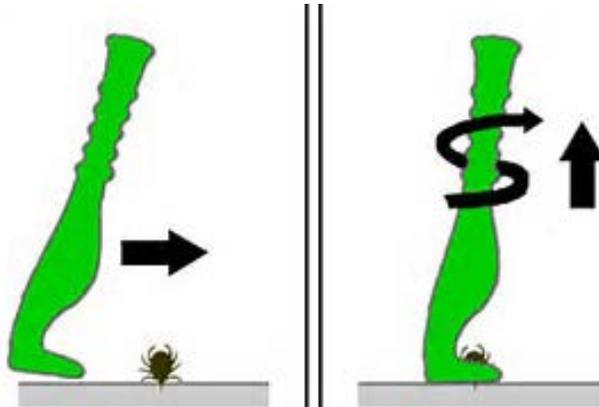
Removing the Tick

This illustration provided by the CDC shows how a person should remove a tick from a person or animal using a tweezer. **I DO NOT AGREE WITH THE CDC TECHNIQUE – TOO RISKY!**



Alternatively, the Center for Wilderness Safety (CWS) suggests using a “**Tick Twister Pro**” – **I HIGHLY RECOMMEND THIS TOOL**, so if you live in a region known to be highly-infested with Lyme disease, buy the Tick Twister Pro, which is the best on the market. **DO NOT BUY OTHERS**, as they are not as efficient.

Hook the tick all the way to the end of the fork base, and not just from the tip of the fork. Only when the tick is fully secured should you then twist and pull up. This needs to be done promptly – in a matter of seconds, without leaving any body parts (pieces) of the tick implanted into your skin. Remove it without ever compressing the abdomen of the tick, minimizing the transfer of infectious pathogens.



If the Tick Twister Pro is not available, the CWS also recommends a needle nose tweezer, but as stated earlier, **I do not recommend use of a tweezer. INSTEAD**, your next best choice is to use an exacto knife (clean the blade with alcohol first and let it dry), pushing up from under the body of the tick as demonstrated in the CDC picture. A tweezer needs to be squeezed, which agitates the tick and can potentially release infected juices from it, transmitting disease – this method, in my personal and professional experience, is too risky.

Handling the Tick Once Removed

Save the tick into a sealed glass or plastic jar or Ziploc bag, which can be brought into your doctor's office and sent to a laboratory for analysis. This helps to identify what diseases the tick may have, if any.

Note that drowning a tick in peppermint oil, a common approach to killing ticks, may actually cause more harm than good.

According to the American Lyme Disease Foundation (ALDF):

Ticks are responsible for at least ten different known diseases in humans in the U.S., including Lyme disease, Rocky Mountain spotted fever, babesiosis, and more recently, anaplasmosis and ehrlichiosis. Now added to this list is the increase of Powassan virus, a serious infection with no known treatment.

Tick expert Dr. Neeta Connally said many of those diseases can actually be spread from aggravating the tick (i.e., "drowning" it in substances like peppermint oil). [Also peppermint oil possesses great penetrating properties, which is precisely why it needs to be avoided. Having a tick on you will increase the infected saliva osmosis \(penetrate\) into your skin – like that of alcohol, so it is also not recommended for this reason. How ironic is this, considering that peppermint oil possesses a mild tick and mosquito repellency.](#)

Dr. Connally explained that from a "public health standpoint," putting peppermint oil on ticks is not recommended. She also pointed out that rather than "regurgitating" or "throwing up," the tick actually carries most diseases in its saliva that can be released when agitated or irritated:

We DO NOT want to agitate the tick at all because as you know, many pieces of ticks carry all sorts of diseases. Those are actually salivated into the body when the tick attaches and feeds into your blood and appear looking pregnant when having sufficient time to feed. You do not want to agitate the tick in any way that is going to make it salivate more and thereby be more likely to transmit anything into your blood stream ending up making you sick.

The Center for Wilderness Safety backs up this theory, and the Centers for Disease Control and Prevention (CDC) recommends avoiding any painting of the tick(s) with nail polish or petroleum jelly, or using heat to make the tick detach from the skin.

According to the CDC, after the tick has been removed, a person can get rid of the pest by [\(my comments are in blue\)](#):

- Flushing it down the toilet. [ABSOLUTELY NOT – SAVE IT!](#)
- Placing it in a sealed bag/container [THE ONLY ONE THING YOU SHOULD DO – SAVE IT!](#)
- Submerging it in alcohol. [NOT RECOMMENDED.](#)
- Wrapping it tightly in tape. [NOT RECOMMENDED.](#)

Handle the tick as quickly and briefly as possible. Remove it ASAP and save the tick in a safe container. **NEVER SQUEEZE IT** – that's why I do not like the tweezer, which can result in releasing the saliva onto your skin, allowing it to find its way into the blood stream.

Treatment After Removal

Do not use alcohol before or after – only hydrogen peroxide to draw it out, as alcohol penetrates into the blood stream. Or just use soap and water if you do not have hydrogen peroxide available. Another great method, especially when the tick seems to have left your skin red and inflamed, is to make a poultice of baking soda with organic apple cider vinegar – a medium-thick paste that is applied only after you have removed the tick; leave on for 20 minutes or more and repeat three to four times daily until fully healed. Two days is usually sufficient. This poultice is also the best thing I know for any bee stings to prevent complications and draw out the bee venom. If you do not have organic apple cider vinegar, any white distilled vinegar will do. Often what can occur is that a remaining piece of the insect's body – be it a tick, bee, or even a spider – remains embedded in your skin, and this poultice serves to draw the piece or venom out of the skin. If for any reason the skin does not heal, you could still have a piece of the insect body lodged into your skin, which could require it to be surgically debrided. You could also be developing a secondary infection called a cellulitis – seek medical advice and don't wait until you end up with a sepsis.

It takes anywhere from 24 to 48 hours for a tick to feed sufficiently into your skin to transmit infection. If a person who encountered a tick bite starts experiencing Lyme Disease symptoms, such as a rash, Bell's palsy, bruising, joint pains, chills, fever, or fatigue, it is extremely important to be diagnosed early on versus a late-onset infection, with its well-known devastating effects. With any potential diagnosis of Lyme diseases, time is of critical importance! I cannot stress this point enough.

When unclear as to how long you had a tick squatting free residence and feeding onto your skin, it is best to act by taking a one-time dose of doxycycline 200 mg in hopes of avoiding a full-blown infection, while waiting for tick disease results. This is when an ounce of prevention is worth many pounds of cure. Call your doctor's office for the results – don't leave it to them to call you. Always be proactive in your health care, as too often doctors and staff office are so busy and could make a mistake not reporting these results in a timely manner.

There is only a very narrow window for prophylactic treatment to be effective post-tick removal. Prophylaxis can be initiated within 72 hours of the time that the tick was removed. This time limit is suggested because of an absence of data on the efficacy of prophylaxis for tick bites following longer time intervals after tick removal. A single dose of doxycycline (200 mg) may be offered to adult patients and to children >8 years of age (4 mg/kg up to a maximum dose of 200 mg) when BOTH of the following conditions exist:

1. The attached tick is a black-legged tick (deer tick, *Ixodes scapularis*). Tick identification is most accurately performed by an individual trained in this discipline.
2. The tick has been attached for at least 36 hours. This determination is most reliably made by an entomologist, but simply asking the patient about outdoor activity in the time before the tick bite was discovered can often lead to an accurate estimate of attachment time. Unengorged (unfed) black-legged ticks are typically flat. Any deviation from this "flatness," looking pregnant, or puffy, which is often accompanied by a change in color from brick red to a gray or brown, is an indication that the tick had ample time feeding.

It is important to note that infectivity rates can vary widely, even across short geographic distances, and in the same location over time. Any recent travel to a region known to be highly infected must also be considered.

Please Note: that single-dose doxycycline is not 100% effective for the prevention of Lyme disease; consequently, patients who receive this therapy should monitor themselves for the development of Lyme disease as well as other tick-borne diseases, including anaplasmosis and babesiosis. Testing of ticks for tick-borne infectious agents is not recommended for guiding an individual patient's prophylaxis or treatment decisions. However, it is still invaluable to test the tick for knowing which type of infections or co-infections the tick may have had in order to choose the right course of antibiotics to treat a developing infection if becoming symptomatic.

However, it is more prudent when having multiple ticks infestation with or without multiple bites always require a full course of antibiotics. This is when it is best to be safe than sorry later, in my experience, because late diagnoses are well known to have chronic devastating health consequences when not treated promptly.

The worst-case scenarios are those **who never notice a tick bite or do not develop any early-on classical symptoms**. Those are the sneaky ones, and these latent cases are much more difficult to treat when finally diagnosed.

Powassan Virus on the Rise and Everyone is at Risk.

Scientists believe that Powassan virus infection is on the rise based on studies that have identified an increasing number of infections in deer.

Ixodes scapularis, the blacklegged tick or more commonly known as the deer tick, can transmit the virus to people. *I. scapularis* is the same tick that transmits Lyme disease, human anaplasmosis, and babesiosis. There are several other tick species in North America, including other *Ixodes* species and *Dermacentor andersoni*. A tick needs to be attached to a person for a sufficient amount of time before it can cause disease. The exact time interval for Powassan virus is unknown, but it is **likely much shorter than the time needed for Lyme disease** (24–36 hours) or anaplasmosis (12–24 hours).

Clinical Symptoms of Powassan virus?

Symptoms generally develop 7–14 days (range 8–34 days) following infection. Some people who are infected may experience mild illness or no symptoms. Symptoms of illness usually begin with an acute onset of fever and may include headache, muscle weakness, nausea, vomiting, stiff neck, fatigue, confusion, paralysis, speech difficulties, and memory loss. Powassan virus infects the central nervous system (CNS) and can cause brain neuro inflammation (encephalitis) and inflammation of the membranes surrounding the rest in the brain and spinal cord (meningitis).

Currently, there are no specific medications available in the treatment of Powassan virus infection, but supportive care can be used to manage and alleviate symptoms. About 15% of patients who are infected with Powassan virus and have symptoms **will not survive**. "Of the survivors, at least 50% will have long-term neurological damage that is not going to resolve." Even amputation can be a result of this viral infection.

It is scary to know that 2017 is forecasted to be a very bad tick season – attributed to warmer winters that have led to an increase in tick population, so experts predict rising tick-borne infections of many types. However, our best method of prevention is to use repellent often, and if ticks are discovered on our skin, to remove them in a safe and effective way as explained above, and to save the tick for disease analysis.

Morbidity and Mortality Weekly Reports

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Outbreak of Powassan Encephalitis — Maine and Vermont, 1999-2001. MMWR 2001; 50(35):761-764.

Tick Repellency:

A Topical Vegetable Embryonic Serum (VES™) that serves as a mosquito and tick repellent.

An informal study was conducted by Dr. Andre Lautin and me between 2010 and 2014. To investigate the level of repellency effectiveness against all ticks and mosquitoes of the quadruple combinatorial mixture of 4 single embryonic plant extracts (EPEs).

Participants in this study were eleven organic farmers in Dutchess, Ulster, and Suffolk Counties in New York. They farm every summer into late fall and, prior to this study, suffered repeatedly from Lyme disease and its co-infections.

All participants had a medical history of taking a minimum of 20 different courses of antibiotic for the treatment of Lyme disease during the previous ten years. Some of the farmers were personal friends of mine, and some were friends of these farmers and had requested my help in finding a repellency solution to prevent ticks from adhering to their skin during farming season. Ticks were found to be abundant on the soil and bushes by surrounding deer on their farms, irrelevant of fences, which never prevent ticks from entering their land.

FORMULA combined all the 4 plant extracts together

- Cedar of Lebanon – Cedrus Libani (young shoots) 1:20
- Juniper – Juniperus Communis (young shoots) 1:20
- Lemon Tree – Citrus Limonum (bark) 1:20

- Rosemary – Rosmarinus Officinalis (young shoots) 1:20

Equal amounts of each herb combined and then diluted with 50% distilled water and put into a plastic spray bottle BPS free.

They were instructed to deliberately spray their skin and clothing, avoiding the eyes, and to repeat this application at least four times daily or as often as required depending on activity, sweating, and after each time they would take a shower or wash their hands. They were told that it was better to apply too much rather than too little.

Results demonstrated that for the first time during the history of their farming life, none of the eleven participants ever contracted a Lyme disease-related infection since the start of this study, which of course did not include a double-blind placebo (because of the severity of already having multiple past infections, we could not risk any new infections) Since the initiation of this trial dating back to 2010, and to the publication date of this article in 2017, all participants remained free from any ticks ever adhering to their skin.

Since the initiation of this combinatorial complex, two English National Geographic producers filming abroad in remote places of the world's jungles had also made use of this product to avoid mosquito-related infections endogenous to various geographic regions of the world. Both film-makers have reported to us the incredible results they obtained from the use of this repellent, and never again have they contracted any mosquito-borne diseases.

I also spray my dog twice daily with herbal combination daily, which has been shown effective in preventing ticks from adhering to its fur and skin. Since I started using it, my dog has never had Lyme disease or any related infection; in addition, it prevents all mosquito-related infections. I do this instead of using the toxic Frontline product and the Heartworm medicine based on arsenic, which I refuse to give my dog.

THE BILLION DOLLAR HEARTWORM & LYME DISEASES SCAM!

Pet Protection Against Ticks – Mosquito-Borne Pathogens

Lyme disease vaccines and testing, as well as Lyme treatment of asymptomatic dogs, is a huge scam costing American dog owners hundreds of millions of dollars each year. Just say NO to Lyme disease vaccination. This is junk science and billing.

Treat suspected Lyme disease with doxycycline (5 mg per pound of dog) which you can purchase without a prescription and without visiting a vet. If your pet is lame or, lethargic with stiff-joints and shows marked improvement after a few days, keep it on a course of doxycycline for a full 5 weeks.

Just say NO to Elyssa Lyme testing; the tests ALL give false positives! None of the tests tell you if your dog has the disease, and ALL the tests cost more than the Lyme treatment, which is the only definitive test for the disease – having definite clear symptoms. Only when suspecting Lyme disease, the western blot all bands is the only test worth doing.

Most of this literature is marketing material cobbled up by drug manufacturers trying to sell Lyme tests, Lyme vaccines, and Lyme cures, but some legitimate scientific research on this disease has been done, as well, refuting most of what is told by vets and drug companies.

I could reference all of the scientific literature, but it is unnecessary, as the "Consensus Statement by the American College of Veterinary Internal Medicine on Lyme Disease" offers an excellent "best practices" paper as to what can and should be done regarding Lyme. Look at this PDF document to find out more:

<http://www.terrierman.com/Lyme-in-Dogs.pdf>

Frontline, also known as Fipronil, disrupts the central nervous system activity in insects by interfering with the passage of chloride ions in GABA-regulated chloride channels. Causes rapid death of the invertebrate. It is neurotoxic to animals.

Frontline Plus uses S-Methoprene, a strong pesticide that is, troublingly, used in farming. Permethrin (used in K9 Advantix) is well known to be poisonous to cats. Both these chemicals interfere with the central nervous system (CNS) of the fleas and ticks, paralyzing and killing them. Knowing this helps us understand how dogs can be getting seizures after using these products. It is a poison and causes seizures in animals.

Merial's Immiticide® is a very risky business since it contains the drug melarsomine, which is an arsenic-based compound that could potentially poison your dog. It is injected into your dog's lumbar muscle. Heartworms are transmitted by mosquitoes. So the best thing to do is to use a repellent twice daily instead of these toxic products that veterinarians keep pushing on pet owners who are unaware of their potentially toxic risks. The practice of some veterinarians to continuously prescribe monthly chemoprophylaxis exaggerates the actual risk of heartworm transmission in most parts of the country and unnecessarily increases the cost of protection to their clients. Fear spreads heartworm medications. Truths, Omissions, and Profits are all many veterinarians are concerned with. Heartworm drugs **do not, by the way, prevent heartworms**. They are poisons that kill heartworm larvae (called microfilariae) contracted during the previous 30-45 days (and maybe longer due to what is called *the reach back effect*). In order to get heartworm disease, a particular species of mosquito must bite a dog infected with circulating L1 heartworm babies, must carry the babies to stage L3, and then must bite your dog. The adult worms and babies will eventually die off in the dog unless your dog is bitten again. Heartworm development requires sustained day and night weather above 57°F, so why would this be given year-round, when living in four-season region?

Heartworm infection is NOT a rapidly developing illness and will not kill your dog overnight.

It takes about three months for microfilaria (baby worms) to grow inside your dog to a larval stage, and even longer for these larva to mature into adult heartworms. If your dog is dosed with a simple Ivermectin treatment at any time during this period before adult worms are present (a period that lasts about three months), the larvae will never develop into adult worms, and will die. Read that statement again: a single dose of Ivermectin will arrest and kill heartworm up to 3 months after your dog has been infected.

ALL heartworm preventatives are poisonous. Veterinarians take advantage of your love for animal and push unnecessary tests and medications by scare tactics that are fraudulent at best, and this needs to be exposed. Despite what your veterinarian may have told you, there is NO "prevention" for heartworm infection; there is only heartworm

treatment. ALL heartworm medicines work the same way – they kill heartworm microfilaria present in the body of the dog.

Almost everything you have been told and taught about heartworm is an exaggeration or an outright lie, and this misinformation is probably costing you more money than it needs to, but worse, it endangers the lives of our beloved pets.

SIDE EFFECTS: HEARTGARD and TriHeartPlus (ivermectin): Depression/lethargy, vomiting, anorexia, diarrhea, mydriasis, ataxia staggering, convulsions, and hyper salivation. INTERCEPTOR (milbemycin oxime) reports the above reactions plus weakness. Sentinel (milbemycin oxime) reports vomiting, depression/lethargy, pruritus, urticaria, diarrhea, anorexia, skin congestion, ataxia, convulsions, hyper salivation, and weakness.

REVOLUTION® (selamectin), Topical Parasiticide For Dogs and Cats: pre-approval reactions of vomiting, loose stool, or diarrhea with or without blood, anorexia, lethargy, salivation, tachypnea, and muscle tremors. Post-approval experience includes the above plus pruritus, urticaria, erythema, ataxia, fever, and rare reports of death and seizures in dogs.

Beware any website or person professing the absolute safety of any medication.

Healthy animals do not even get heartworm. Mosquito control is the ultimate natural prevention. No mosquitoes, no heartworms. Control mosquitoes by eliminating standing water and staying indoors at dusk and dawn. Use herbal bug sprays marked safe and non-toxic to both animals and children. Buy bug zappers. All these are good suggestions for human protection from mosquito-borne diseases, as well. Most importantly, do not make decisions based on fear. Don't let anyone, even your vet, intimidate or ridicule you. Be an educated consumer!

<https://terriermandotcom.blogspot.com/2008/05/billion-dollar-heartworm-scam.html>.

A great website for safer and non-toxic pet products education is: <http://www.dogsnaturallymagazine.com/heartworm-medication-part-1-truths-omissions-and-profits/>

The following list also described the benefit of PSC® repellent for use on all domestic pets, including chickens and horses. However, for cats who do not like to be sprayed with liquid, you can spray close to their fur if permitting or else spray on your hands and rub throughout their fur, always avoiding the eyes of all living mammals.



Mosquito-related infections found in humans and animals include:

- Chikungunya found in **humans** (Caribbean and Florida)
- Dengue found in **humans** (Africa, Americas, Asia, Puerto Rico, and Key West, Florida)
- Dog Heartworm – *Dirofilaria immitis* found in **dogs** and other animals such as **cats**, **foxes**, and **raccoons** (Canada and United States)
- Eastern Equine Encephalitis found in **horses** and **humans** (North America, Central and South America, and the Caribbean)
- LaCrosse Encephalitis found in **children younger than 16** (in all 13 states east of the Mississippi, particularly in the Appalachian region)
- Malaria found in **humans** (found in most tropical areas, Africa, and northern Europe)
- St. Louis Encephalitis found in **humans** (United States)
- West Nile Virus found in **humans** (all over the world)
- Western Equine Encephalitis found in **horses** and some **chickens** and occasionally **humans** (found primarily in California, and west of the Mississippi, including parts of Canada and Mexico)
- Yellow Fever found in **humans** (Africa and the Americas)
- Zika Virus found in some **adult humans** and most problematic in **unborn children** and **infants** (South Pacific and western hemisphere, the Americas, Caribbean, and now finding its way in the United States)

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