



Flood Recovery:

Mosquito Precautions

What is the risk?

Even after floodwater recedes, there will be more standing water than we typically see in our neighborhoods. Standing water can increase the number of mosquitoes. Having more mosquitoes can increase the risk of diseases that can be spread by mosquitoes.

- Mosquito bites will at least cause itching and discomfort, and, for some people can result in skin infections from scratching or an allergic response.
- Some mosquitoes carry disease. They can spread disease in our community by biting infected humans or animals.

The most common mosquito-carried disease in our state is West Nile Virus (WNV). Montana has had a handful of human WNV cases in each of the past few years.

- Many people infected with WNV do not have any symptoms, while others may feel mildly ill. Some individuals may experience severe symptoms including fever, headache, neck stiffness, weakness, vision loss, numbness, disorientation, coma, or permanent paralysis or neurological effects.
- There is no WNV vaccine available for humans.
- In Montana, most human cases occur between late July and the first freeze.
- WNV can infect and be fatal to horses. There is a vaccine available for horses. Consult your veterinarian.

How can I protect myself from mosquito bites?

As you begin your clean-up and recovery from the flood, you are likely to spend a lot of time outdoors. This can increase your exposure to mosquitoes. Follow these tips to protect yourself from bites:

- Mosquitoes are most active at dusk and dawn. Be sure to use insect repellent and wear long sleeves, pants, hat and neck kerchief at these times or consider staying indoors during these hours. Spray clothing, kerchief and hat with repellent.

- Use insect repellent. The most effective repellents contain DEET. Follow label directions and precautions, including instructions for reapplying periodically. There is no need to use a repellent that contains over 50% DEET. To protect your face, use your hands to rub the repellent on your face, don't spray directly on your face. Spray your hat, clothes, kerchiefs, not just your exposed skin.
- Children can be protected with DEET but the concentration of DEET should not be higher than 30%. 10% is the lowest effective concentration for children and adults. Keeping children indoors or when outside covered with clothing and hats offers considerable protection from bites.
- Make sure you have good screens on your windows and doors to keep mosquitoes out. Repair window and door screens and add screening where needed.

How can I help reduce the mosquito population?

Not all water is ideal for mosquito breeding. Running water, and water that does not have much plant life doesn't attract mosquitoes. Shallow, standing water, even if it is only there temporarily, will attract mosquitoes. In hot weather, it only takes five days for standing water to produce mosquito offspring.

- Dispose of all water-holding containers, such as plastic jugs, empty barrels, tin cans, buckets, bottles, garbage, etc.
- Dispose of old tires. Old, unmounted tires are very productive breeding sites.
- Turn over canoes and small boats or cover them with a tarp. If covering with a tarp, make sure tarp does not sag down and collect water.
- Cover trash containers, or drill holes in the bottom of recycle containers to keep rain water out.
- Empty or change wading pools and birdbaths often.
- Do not over-water fields and lawns. Fill in any ruts or low spots that could collect and hold water for more than one week.
- If storing wheelbarrows outside, store upside down.
- Keep grass cut short and shrubbery trimmed so adult mosquitoes don't hide in the shaded areas during the day.
- Inspect eave troughs to ensure water is draining properly
- Restore drainage to flood-impacted areas as soon as possible.
- In pools of standing water left behind from flooding, you can use **Bti mosquito 'dunks.'** The dunks contain bacteria (Bti or *Bacillus thuringiensis israelensis*) that stop mosquito larvae from growing into adults. Bti bacteria is not harmful to humans or animals. The dunks are placed in the standing water, so no spraying is involved. Mosquito dunks are available at hardware, garden stores and on-line. When purchasing dunks, check the ingredients, know the surface area of the standing water you are treating, then follow directions to use.