

**BRPC Staff:**

**Director**

Christopher Holstege, MD

**Nursing Director**

John Gilday, MSN, NREMT-P

**Medical Toxicologists**

Andy Baer, MD  
 Heather Borek, MD  
 Nathan Charlton, MD  
 Marissa Kopatic, MD  
 Justin Rizer, MD

**Medical Toxicology Fellows**

Ryan Cole, MD  
 Aaron Frey, DO  
 Will Goodrich, DO  
 Avery Michienzi, DO

**Epidemiologist**

Rita Farah, PharmD, MPH, PhD

**Poison Specialists**

Andre Berkin, BSN, CSPI  
 Michael Brookshire, BSN, CSPI  
 Katerina Deasy, BSN  
 Jennifer Horn, BSN, CSPI  
 Teresa Kinzie, RN, CSPI  
 Bryan Murphy, BSN  
 Tracy O'Brien, RN  
 Lisa Turner, BSN, CSPI  
 Steven Yoder, BSN, CSPI

**Public Health Educator**

Kristin Wenger, MA, BS

**Administrative Specialists**

Heather Collier



## JELLYFISH STINGS: What To Do, What To Avoid

Heading to the beach this summer? You may encounter some jellyfish. They are fascinating creatures, but they can really put a 'sting' in your vacation. Be prepared: know what to do and what to avoid in the event of a jellyfish sting.

Heading to the beach this summer? You may encounter some jellyfish. They are fascinating creatures, but

jellyfish, and her pal Joey, extinguished her discomfort by urinating on her leg. The scene is funny, but is it accurate? "Absolutely not," says Bryan Murphy, BSN, a poison specialist at the Blue Ridge Poison Center. "Unfortunately, many people believe the myth that urinating on a jellyfish sting is good first aid. It won't cause any harm, other than being unpleasant. But it won't help, either." Read below for Bryan's tips on treating a sting correctly.

**How dangerous are jellyfish?**

Symptoms of jellyfish stings range from mild to deadly, depending on the type of

continued page 2

## Prevent The Bite, But Use DEET Right



DEET is a common ingredient in many mosquito repellants. When used according to the directions, mosquito repellants are safe and effective tools for preventing diseases caused by mosquitos, including West Nile virus, Zika virus, and malaria.

DEET is a common ingredient in many mosquito repellants. When used according to the

continued page 3



## POISON TRIVIA

This is the *most widely used drug worldwide*. A related compound occurs naturally in some plants, including willow trees, which have been used medicinally for thousands of years. What is the drug?

Answer on page 4

jellyfish and how much skin is affected. The most dangerous species--the box jelly or sea wasp (*Chironex fleckeri*)--lives in the waters between northern Australia and Southeast Asia. These jellyfish have been known to cause death within hours or even minutes of a sting. Thankfully, jellyfish species native to Virginia and other states on the U.S. east coast are much less dangerous. The most common symptoms reported are localized pain and burning, redness, swelling, and a rash or blisters at the site of the sting. Symptoms usually go away after a few hours.



**Warning! Beached jellyfish may still be able to sting, even if dead.**

#### **Why do jellyfish sting?**

Jellyfish do not sting on purpose. Their long tentacles contain thousands of microscopic stinging cells. When the tentacles brush against something, such as a fish, these cells launch tiny barbed stingers which inject venom into the fish, leaving it helpless so the jellyfish can eat it.

The stinging cells also protect the jellyfish from predators. Unfortunately,

if you wander into the path of a jellyfish's tentacles, you may suffer a sting just as if you were a meal or a predator.

#### **Bryan offers these first aid measures in the event of a jellyfish sting:**

- Leave the water quickly and calmly.
- If you see pieces of jellyfish tentacles still clinging to your skin, remove them by gently scraping with a towel, a handful of wet sand, or the edge of a seashell or credit card. Do not use your bare hands.

### **An allergic reaction to a jellyfish sting is a medical emergency.**

- Rinse the affected area of skin with ocean or brackish water. *Do not use fresh water, which can make the stinging worse.*
- Spraying or soaking the affected area with vinegar can help relieve the pain. (Some lifeguards keep vinegar at the lifeguard station.)
- Immersion in hot water may also provide pain relief. (The water temperature should be hot but tolerable. You don't want to burn yourself.)
- Over-the-counter pain relievers, antihistamines, topical cortisone creams, or cold compresses all may provide relief for victims with lingering mild symptoms.

Occasionally, someone develops an allergic reaction to jellyfish venom. This can be a serious medical emergency. **Seek help immediately for any of the following symptoms:**

- Coughing, wheezing, or difficulty breathing.
- Headache
- Nausea or vomiting.
- Dizziness or fainting.
- Muscle spasms.

You may also want to seek medical care if the pain is severe, if a large portion of the body is affected, or if someone receives a sting to the eyes or genitals.

Bryan offers this last bit of advice: "Call the Blue Ridge Poison Center if you have questions or need guidance for a jellyfish sting. We are standing by the phone 24 hours a day. We are always happy to help." Calls are free and private: 1-800-222-1222.

Repellents are available in a variety of forms including liquids, lotions, sprays, and wipes.

### How do mosquito repellents work?

Female mosquitos locate us by following odors given off by our skin and breath. They bite because they need to consume a protein in our blood for their eggs to develop. (Male mosquitos only eat flower nectar). Insect repellents do not kill mosquitoes. Instead, they make it difficult for mosquitos to smell and find us. If they can't find us, they can't bite us.

Products are available in a wide range of concentrations of DEET, from as little as 4% up to 100%. A higher concentration does not mean that the product will work better. Instead, it means that it will be effective for a longer period of time. Therefore, products containing lower concentrations of DEET may need to be reapplied frequently. But don't overdo it. Twice the product does not equal twice the results! It is important to



Adults should apply mosquito repellent to children. Avoid spraying their hands.

read the label and follow the safety instructions to prevent harm.

### Is DEET safe?

There are some reports of DEET causing harm, but in most cases the person used the product incorrectly. Using too much product on the skin can cause burning and redness. Accidentally getting DEET into the eyes, mouth, or other mucous membranes may also cause pain and redness. In some cases, getting DEET into the

eye can also cause burns or tiny scratches to the surface of the eye which will need medical treatment. If someone swallowed a small amount of DEET, they might experience temporary nausea and vomiting. Swallowing large amounts can cause seizures as well as dangerous changes in heart rate and blood pressure.

### **Prevent the bite, but use DEET right:**

- ☑ Apply mosquito repellent only to exposed skin and outer clothing, not inside clothes.
- ☑ Avoid getting product into your eyes or mouth. Wipe repellent onto your face with a cloth or your hands instead of spraying.
- ☑ Do not spray near food, dishes, or eating utensils.
- ☑ Adults should apply repellent to children. Avoid spraying their hands.
- ☑ Keep mosquito repellent out of the sight and reach of children at all times.
- ☑ Do not use on children younger than 2 months of age. Instead, cover your baby's carriage or playpen with mosquito netting when outside.
- ☑ Do not reapply mosquito repellent more often than it says on the label.

Be careful not to confuse *mosquito repellants* with *pesticides*. Pesticides are designed to kill insects and are not safe to use on skin.

If someone is experiencing symptoms after using a mosquito repellent, or if someone accidentally swallows any amount of the product (even if they look and feel fine), call the Blue Ridge Poison Center right away. If possible, have the product handy so that you can tell the poison center exactly what the label says.

## News & Notes

**NEW!** A virtual interactive program to help you avoid mistakes from over-the-counter medicines by learning to read a **Drug Facts Label**. The program lasts about 15 minutes and is appropriate for any adult who is able to take or give medicine on their own. You can download a certificate of completion at the end. [>>VISIT THE PROGRAM](#)

### Over-the-Counter Medicines: Avoiding Common Mistakes

After this presentation, you will be able to:



- 01 Define all 6 parts of a Drug Facts Label.
- 02 Use a Drug Facts Label to avoid harm from over-the-counter medicines.
- 03 Identify the Poison Center as a source of help in case of a medicine mistake.



According to an [article](#) in the May, 2022 issue of *The Virginia Mercury*, fire ants are spreading in Virginia. These invasive species can inflict a painful sting

when disturbed. "It's never happy hour with fire ants," said Eric Day, a Virginia Tech entomologist. "It's always angry hour."

Poison Trivia Answer: Aspirin

This free, quarterly newsletter is courtesy of the Blue Ridge Poison Center, serving Southwest and Central Virginia and the Shenandoah Valley. We encourage you to print, post, forward, or share in any way. Don't miss out! [Join the mailing list](#) to receive future issues.

