



Vector-Borne Disease Prevention Resources

Almost everyone has been bitten by a mosquito or tick, which can spread germs (pathogens) and make people sick. Vector-borne diseases increasingly threaten people, with reported cases doubling in the United States over the last two decades, and cases continue to climb. Thank you for your contributions and efforts to protect people against vector-borne diseases!

Messages

For Everyone

- Bites from mosquitoes and ticks can make you sick.
- Preventing bites is the best way to protect yourself and loved ones.
- Take steps to keep ticks and mosquitoes away:
 - Use an Environmental Protection Agency (EPA)-registered insect repellent.
 - Look for an EPA registration number (EPA Reg. No.) on the insect repellent product label. This registration number means the company provided EPA with technical information on the effectiveness of the product.
 - Wear long, loose-fitting shirts and pants.
 - Treat clothing and gear with a product containing 0.5% permethrin.
- **Additional steps to prevent mosquito bites**
 - Once a week, remove standing water around the home. Mosquitoes lay eggs near water.
 - Use screens on windows and doors or use air conditioning to keep mosquitoes outside. If traveling, choose lodging with window and door screens or air conditioning.
- **Additional steps to prevent tick bites**
 - Avoid ticks by staying away from wooded and brushy or grassy areas.
 - Check clothing and body for ticks when returning indoors.
 - Shower after spending time outside to help remove unattached ticks and see ticks that might have attached under your clothes.
 - Also check pets for ticks after they have been outdoors.
 - Remove attached ticks as soon as possible. The longer a tick is attached, the more time it has to pass germs to you.
 - Dispose of ticks by taking one of these steps: place it in a sealed container; wrap it tightly in tape; flush it down the toilet; or put it in alcohol. Do not crush the tick with your fingers.
 - If you would like to bring the tick to your healthcare provider for identification, put it in rubbing alcohol or place it in a sealed bag/container.
- If you think you could have been bitten by a tick or mosquito and you feel sick or develop a fever, see a healthcare provider. Tell your doctor if you have recently traveled or had a mosquito or tick bite
 - Symptoms can include fever, rash, headache, or muscle and joint pain.



For Healthcare Providers

- Encourage patients to use personal protective measures to prevent mosquito and tick bites, such as using EPA-registered insect repellent.
- Ask patients about recent travel and possible exposure to mosquitoes and ticks.
- Consider vector-borne diseases on your differential if your patient participated in outdoor activities or recently traveled and presents with symptoms of vector-borne disease, such as fever, rash, headache, muscle and joint pain.
 - Different vector-borne diseases can present similar symptoms. Recognizing the disease early can help with clinical management and improve patient outcomes.
 - Healthcare providers needing assistance with diagnosis or management of suspected cases of vector-borne diseases should call the CDC clinical hotlines. For example, the malaria hotline is available at 770-488-7788 or 855-856-4713 (toll free).
- Stay informed of current outbreaks and public health events on CDC's [Outbreak](#) webpage.

Resources

For Public Health Professionals

- [Alpha-Gal Syndrome \(AGS\) Website](#)
 - [AGS Communications Resources](#)
 - [Video: When a Tick Bite Causes a Red Meat Allergy](#)
- [Chikungunya Website](#)
- [Dengue Website](#)
- [Lyme Disease Website](#)
 - [Lyme Disease Communications Materials](#)
- [Malaria Website](#)
- [Rocky Mountain Spotted Fever \(RMSF\) Website](#)
- [West Nile Virus Website](#)
 - [West Nile Virus Communications Resources and Outbreak Communications Toolkit](#)
- [What to Do After a Tick Bite](#)
- [CDC Safety for Soccer Fans Website](#)

For Healthcare Providers

- [Training: Managing AGS](#)
- [Training: RMSF in Southwestern Border States](#)
- [Training: RMSF Clinical Diagnosis and Treatment](#)
- [Toolkit to Help Clinicians Better Serve Patients with Prolonged Symptoms & Concerns about Lyme Disease](#)
- [Fact Sheet: Supporting Patients with AGS](#)
- [Video: What Clinicians Need to Know About Dengue](#)
- [Pocket Guide: Dengue Clinical Management](#)



Spread the word!

Sample Email

Subject: Give ticks and mosquitoes a red card this summer 🌐🦟

From kickoff to cookout, summer is in full swing. Whether you're cheering from the sidelines or hosting a backyard watch party, don't let mosquitoes or ticks take you out of the game. Their bites can make you sick, and prevention is the best way to protect yourself and those around you.



Stay in the game with these tips:

- Use EPA-registered insect repellent (e.g., DEET, picaridin).
- Wear long, loose-fitting shirts and pants when possible, especially at dawn and dusk.
- Check for ticks after outdoor activities and shower soon after coming indoors.
- Remove standing water in and around homes to reduce mosquitoes.

A little prevention goes a long way, helping you stay healthy and enjoying every minute.

Sincerely,

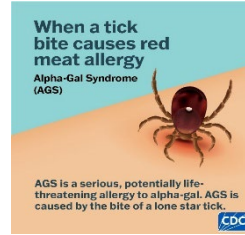
Sample Social Media

Sample copy	Sample photo
<p>Cheering on your team this summer? 🌐🦟 Mosquitoes can be a part of the crowd, too. Mosquito bites can spread germs that make you sick. Find tips to protect yourself & loved ones: https://www.cdc.gov/vector-borne-diseases/prevention/index.html</p>	 <p>Download image: Fight the Bite</p>
<p>Don't let mosquitoes sideline your gameday plans! Mosquitoes can spread germs that make you sick. Protect yourself and your family while enjoying the big game:</p> <ul style="list-style-type: none"> • Use Environmental Protection Agency (EPA)-registered insect repellents. • Wear loose-fitting, long-sleeved shirts and pants. • Control mosquitoes indoors and outdoors, for example by dumping standing water where they can lay their eggs. <p>More tips: https://www.cdc.gov/mosquitoes/prevention/index.html</p>	 <p>Download image: Fight the Bite</p>



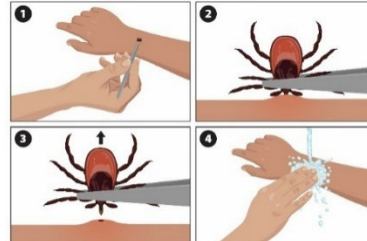
From tailgates to trails, time outside can come with unwanted bites. Lone star tick bites are linked to alpha-gal syndrome (AGS), which can cause delayed allergic reactions to red meat, dairy, and other products made from mammals.

Hear Rob's story with AGS and tips to prevent tick bites:
<https://www.cdc.gov/alpha-gal-syndrome/communication-resources/video-tick-bite.html>



Download image: [Alpha-gal syndrome](#)

Out and about this summer? Sometimes ticks happen, and they use a special "cement" to anchor themselves into your skin. That's why simply brushing them off doesn't work! Removing a tick requires a deliberate pull. Learn how to remove a tick, which can help prevent diseases:
<https://www.cdc.gov/ticks/after-a-tick-bite/index.html>



Download image: [How to remove tick](#)

Fact Sheets

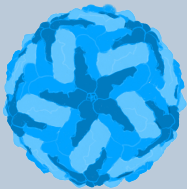
See the following pages for fact sheets to print and share.

Dengue Virus

cdc.gov/dengue

Cause

Dengue is a **viral disease** caused by any of the four related viruses: dengue virus 1, 2, 3, and 4.



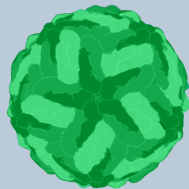
Dengue 1



Dengue 2



Dengue 3



Dengue 4

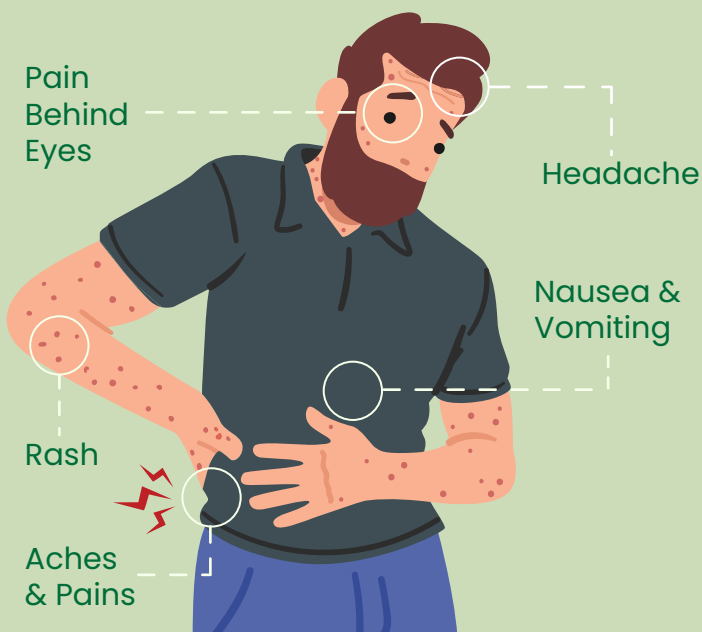
Spread

Dengue viruses are mainly spread to people by the **bite of an infected *Aedes* mosquito**.






Symptoms

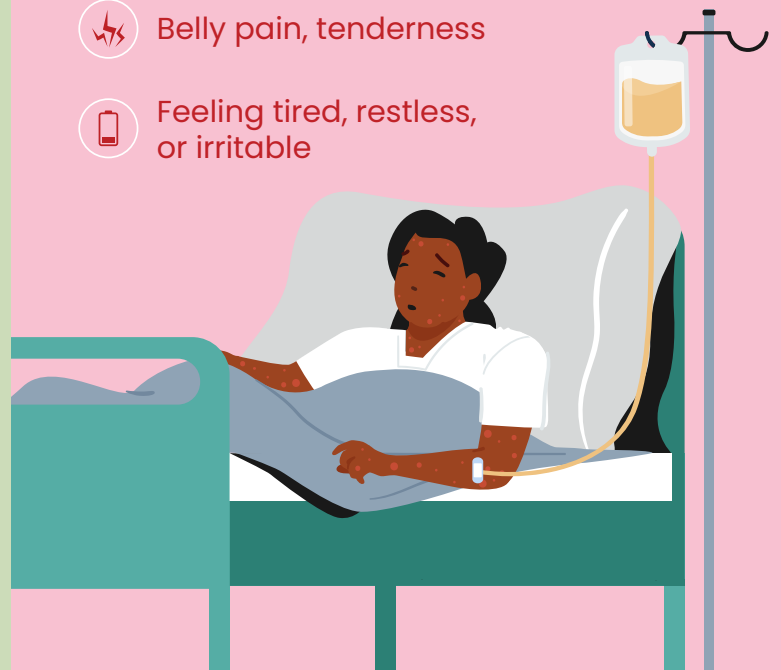
The most common dengue symptom is **fever** with...



Warning Signs

Dengue **can become severe within a few hours**. Watch for warning signs **1-2 days** after fever has gone away.

-  Blood in nose, gums, stool or vomit
-  Belly pain, tenderness
-  Feeling tired, restless, or irritable



Let's Talk Ticks

DON'T WAIT: REMOVE ATTACHED TICKS ASAP

What to do if you find an attached tick:



Remove attached ticks as soon as possible. Do not wait to go to a healthcare provider to remove the tick.

Delaying tick removal could increase your risk of getting a disease spread through tick bites.



Do not use petroleum jelly, heat, nail polish, or other substances to detach the tick from your skin. *This may cause the tick to force infected fluid into the skin.*



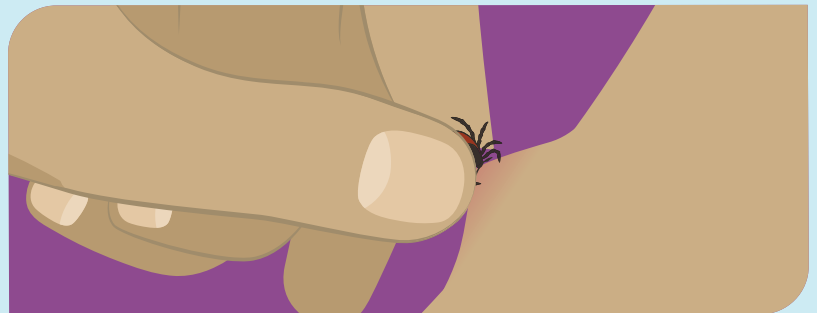
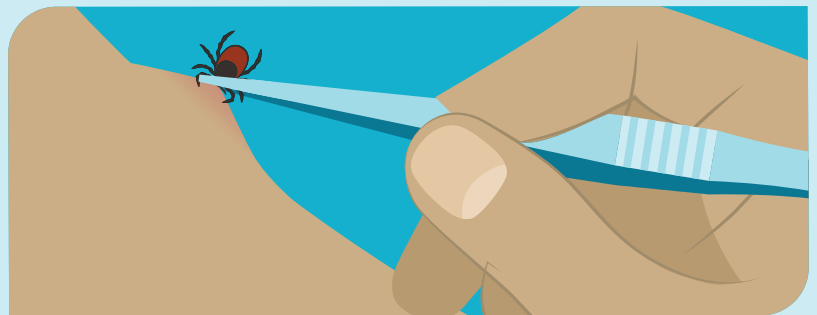
Look for other ticks and remove them. See a healthcare provider if you develop a rash or fever within weeks.

Tell them when and where the bite occurred.

How to remove an attached tick:

1

Grasp the tick as close to the skin's surface as possible using clean, fine-tipped tweezers. *If fine-tipped tweezers are not available, use regular tweezers or your fingers. Grasp the tick close to the skin's surface to avoid squeezing the tick's body.*



2

Pull the tick away from the skin with steady, even pressure. *Don't twist or jerk the tick.*

3

Dispose of the live tick by taking one of these steps.



Place it in a sealed container



Wrap it tightly in tape



Flush it down the toilet



Put it in alcohol

4

Clean the bite area and your hands thoroughly after disposing of the tick. *Use soap and water, rubbing alcohol, or hand sanitizer.*

Learn more at cdc.gov/ticks/after-a-tick-bite

