# Chikungunya Virus

FACT SHEET 18-029-0317

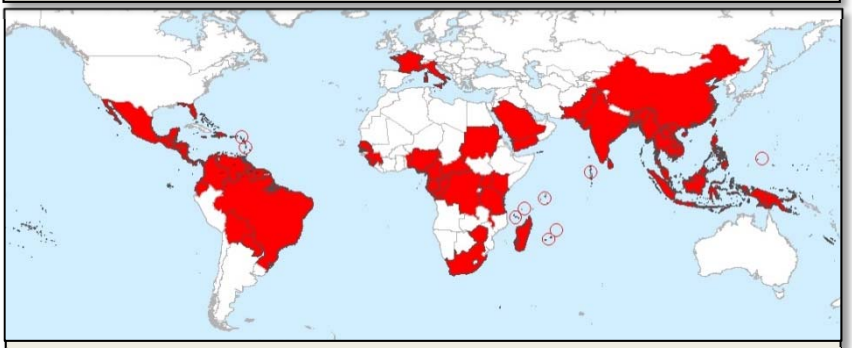
Just the Facts... *Chikungunya virus (CHIK) [chick'-en-GUN-yah], also known as chikungunya virus disease or chikungunya fever, is a debilitating viral illness spread by the bite of infected mosquitoes. CHIK causes a high fever with severe joint pain, similar to other mosquito-borne diseases (like dengue fever). CHIK occurs mainly in Africa, India, and Southeast Asia, but has now been reported in Europe and the Americas*.

*The first locally-acquired cases of CHIK in the Americas were reported from the Caribbean (St. Martin) in late 2013. As of 2014, CHIK has been reported in Florida. Mosquitoes capable of transmitting CHIK are found throughout the Americas and place the region at risk for further introduction and spread of the virus.*

**How do people become infected with Chikungunya virus?**

CHIK is most often spread to people by *Aedes aegypti* and *Aedes albopictus* mosquitoes, which are aggressive daytime biters with peak activity at dawn and dusk. If a mosquito bites an infected person, it can later spread the virus when it bites another person. People cannot become sick by physical contact with a CHIK-infected person.

*Aedes aegypti* (left) and *Aedes albopictus* (right). These mosquitoes are the primary transmitters of CHIK. Both are aggressive daytime biters which readily feed on humans. *Ae. aegypti* is the most important vector in tropical climates, and *Ae. albopictus* plays a more significant role in temperate areas. Photo: CDC



Map as of March 2015, showing countries where local mosquitoes transmit CHIK virus (local transmission). In the U.S. only Florida has reported local transmission of CHIK. A country is not included in the map if a traveler returns home infected with CHIK from another country. Map adapted from CDC

**What are the symptoms of Chikungunya virus infection?**

Symptoms include sudden onset of high fever, severe joint pain, muscle pain and headaches. Symptoms appear on average 3 to 7 days (can range from 2 to 12 days) after being bitten by an infected mosquito. In the Kimakonde language of Mozambique, "chikungunya" means "that which contorts or bends up." This refers to the contorted (or hunched-over) posture of patients who are afflicted with severe joint pain, which is the most common symptom of the disease. While most patients recover after a few days or weeks, a small number of patients may develop chronic joint pain. Some patients have reported temporarily-disabling joint pain or arthritis, which may last for weeks or months. Other possible, but rare, complications include gastro-intestinal or cardiovascular disease. Hospitalization and death are rare.

**Is there a treatment for Chikungunya virus infection?**

No specific vaccine or medication is currently available to prevent CHIK. Treatment is mainly supportive (such as rest, fluids and over-the-counter pain medications like ibuprofen) and directed at relieving the symptoms and preventing complications.

**What should I do if I think I have Chikungunya virus?**

Seek medical attention if you experience the symptoms described above and have traveled to an area where CHIK occurs. CHIK symptoms resemble dengue fever and only laboratory tests can determine which disease you have. Be sure to tell your health care provider your recent travel history. If you think you have CHIK, avoid mosquito bites to prevent the virus from spreading to others.

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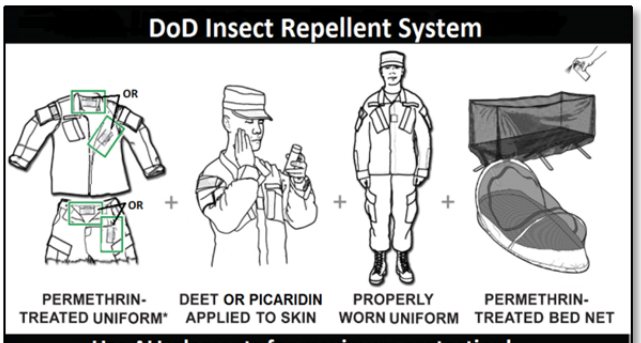
**What can I do to reduce my risk of becoming infected with Chikungunya virus?**

AVOID MOSQUITO BITES! Using the DoD Insect Repellent System provides the best protection from mosquito bites. It incorporates permethrin repellent on the uniform, DEET or picaridin repellent on exposed skin, a properly worn uniform and sleeping inside a permethrin-treated bed net.

Another important preventive measure is to eliminate mosquito breeding sites. Do not allow water to accumulate in containers. Stay in air-conditioned areas or make sure door and window screens are in place and do not have holes. Minimize time outdoors after dawn and before dusk, which are the peak biting times for the *Aedes spp.* mosquitoes that transmit CHIK.




Using all elements of the DoD Insect Repellent System provides maximum and safe protection from mosquito-borne diseases. Diagram: VID, APHC

**How do I know if my uniform is treated with permethrin repellent?**

Factory-treated permethrin Army Combat Uniforms (ACU Permethrin) are now available to all Soldiers. The ACU Permethrin trouser and coat will have a sewn-in label indicating the uniform is factory-treated with permethrin. If not factory-treated, Soldiers can field-treat using either the IDA Kit (NSN 6840-01-345-0237), which can last up to 50 washings, or the 0.5% aerosol spray can (NSN 6840-01-278-1336), which should be reapplied after six weeks and the sixth washing. When applying permethrin, always read and follow the label directions. Permanently mark the uniform label with the permethrin field-treatment date. **Never apply permethrin to the skin**. Aerosol products containing 0.5% permethrin and clothing factory-treated with permethrin are also commercially available for civilian use.

**What standard military insect repellent products are available for exposed skin?**

Approved military insect repellents for use on exposed skin come in a variety of formulations. Always refer to the label to determine frequency of repellent application based on activity. **Do not apply repellent to eyes, lips, or to sensitive or damaged skin**. Available military repellents are:

- **Ultrathon™** (NSN 6840-01-284-3982) contains 33% controlled-release DEET lotion; one application protects for 12 hours.
- **Ultra 30™ Insect Repellent Lotion** (NSN 6840-01-584-8393) contains 30% Lipo DEET; one application protects for up to 12 hours.
- **Cutter® pump spray** (NSN 6840-01-584-8598) contains 25% DEET; one application protects for up to 10 hours.
- **Sunset** combination sunscreen & repellent (NSN 6840-01-288-2188) contains 20% DEET with SPF 15 sun protection.
- **Natrapel® pump spray** (NSN 6840-01-619-4795) contains 20% picaridin; one application protects for up to 8 hours.


All standard approved skin repellents contain the active ingredient DEET or picaridin, and are registered by the U.S. Environmental Protection Agency (USEPA). These products are safe to use and effectively repel mosquitoes, sand flies, fleas, ticks and other potential disease vectors and pests. Photo: VID, APHC

**What is considered a "properly worn combat uniform"?**

Worn properly, military combat uniforms act as a physical barrier against insects, ticks and other disease transmitters and biting nuisance pests. Wear uniforms with the sleeves rolled down; tuck pants into boots and undershirt into pants. Wear uniform loosely since mosquitoes can bite through fabric that is pulled tight against the skin. A permethrin-treated uniform does not provide protection to exposed skin; protect exposed skin with an approved skin repellent.

**What standard bed nets are available to help protect Soldiers from mosquito bites while sleeping?**

Treated bed nets provide a barrier between a sleeping Soldier and pests (e.g. mosquitoes/ticks). Lightweight, self-supporting, pop-up bed nets factory-treated with permethrin are available in coyote brown (NSN 3740-01-518-7310) or green camouflage (NSN 3740-01-516-4415) or the Egret bed net (NSN 3740-01-644-4953). Untreated mosquito bed nets (NSN 7210-00-266-9736) should be treated with 0.5% permethrin aerosol spray and assembled properly on a cot. Check for holes in the netting and keep loose edges off the ground by tucking them under the sleeping bag.

**Where can I get more information on Chikungunya virus?**

- The Armed Forces Pest Management Board's Chikungunya Preparation Site: http://www.afpmb.org/content/chikungunya-preparation