



Lyme Disease Training
National Center for Farmworker Health
2025

About the Lyme Disease Training



Before beginning the presentation consider the following:

Make sure you have all your materials needed for all activities throughout the presentation.

Pg.6 Activity #1 : Connect the tick with its name

Materials:

- *Cutouts of the different tick pictures*
- *Tape*
- *White long paper*

Pg. 18 Group Activity #2:

Materials:

- *A box of old clothing including hats, gloves, face covers, bandanas, and shoes for both a causal and a work day.*
- *A bottle of Permethrin, DEET or mist bottle with water to represent repellent if permethrin is unavailable.*

Pg 26. Group Activity #3:

Materials:

- *A pair of tweezers*
- *A pack of stickers*
- *Water bottle and soap (if hand washing station is not accessible during the training.)*

Training environment and teamwork

- Work on creating an environment of trust so that participants feel comfortable to share their experiences.
- Make sure you allow time to listen and respond to any questions that participants may have.
- Recognize and validate any questions or comments the participants share.
- You can say something like: "Very good question, thanks for sharing your opinion", or "I have heard others that also feel the same way/ share the same concerns."
- Make sure to review the images included in the flipchart and that all participants can view them.
- Make sure you can connect ideas as you transition to the next topic.
- At the end of the training, make sure participants have clarity on action steps.

Lyme Disease

Guide for the facilitator:



Introduction

Introduce yourself, stating your name, organization, and share something about you that may help connect with the participants.

Allow a couple of minutes for them to introduce themselves or you can do an icebreaker like their favorite weekend activity, etc. Encourage participants to share as much as they want.

Continue with the content: "*This training will help you learn:*

1. *Information of Lyme Disease*
2. *Symptoms of Lyme Disease*
3. *What to do if you get tick bites*
4. *How to protect yourself from Lyme Disease*"

Training Learning Objectives

By the end of the session, participants will:

- Describe Lyme disease and how it spreads.
- Explain common signs and symptoms of Lyme disease.
- Demonstrate ways to prevent tick bites during work outdoors.

Introduction

Guide for the Facilitator

What do you know about Lyme Disease?

Ask participants: “*What do you know about Lyme Disease? Have you heard of it before?*”

(Wait briefly for responses to gauge their understanding and previous knowledge of the topic.)

Then, share a few quotes from farmworkers who were asked if they knew anything about Lyme disease. Turn the flipchart to show the quotes and read aloud.



What is Lyme disease?

Answer: *“Lyme disease is a bacterial infection that spreads to people through the bite of blacklegged ticks. This is the most common disease in the United States that is transmitted through bites of infected ticks (vector-borne). More than 476,000 people are diagnosed and treated in the US each year.” Ticks can spread more diseases than just Lyme disease, but we will focus on Lyme disease because it's the most common. However, different ticks can cause different diseases, and some can cause more than one disease.*

Activity: Connect the tick with its name

Materials:

- Cutouts of 4 picture of ticks
- Tape
- White long paper

Scan here to download activity sheet



Step 1. Tape the long white paper on the wall to have a place for the participant to tape the tick pictures.

Step 2. Ask 1 volunteer to go up front and connect the tick with its name the best they can.

Step 3. Then ask the audience to check if they are correct based on the flipchart picture on page 8. Explain that this is how blacklegged ticks look since they are small into adulthood and the differences between female and male ticks.

Key take-away: *“Most cases of Lyme disease are caused by the bite of the nymphs - which are very, very small and easy to miss. Adult females also transmit Lyme disease when they bite but adult males and larva do not.”*



What is Lyme disease?

Farmworkers' Quotes

What do you know about Lyme disease?

“About Lyme? I heard one time that it gives an internal infection in the blood and also swelling, and itchiness and stinging on the skin.”

– Outdoor Worker

“When you get a tick bite, you have to take amoxicillin antibiotics.” – Outdoor Worker

“Because there is a tick that is like smaller and paler, and I don't know if it is a little bit more poisonous than the black one.” – Outdoor Worker

Blacklegged tick (*Ixodes scapularis*)



Adult
female



Adult
male



Nymph



Larva



Guide for the presenter:

How is Lyme disease spread?

Say: *“It is spread to people by black-legged (Ixodes) ticks that live in wooded and bushy areas. People can get bitten by ticks while working outside, playing in parks, hiking, or doing other activities outside.”*

Examples of outdoor workers at risk:

- Construction workers
- Landscaping workers
- Forestry workers
- Agricultural workers, etc.

Scan here to
download the
sheet with pictures



Ask participants if anyone from the audience does this type of work. Allow a few minutes for participants to share.

Pictures:

Show pictures of both ticks questing the environment and attached to the skin. These pictures will help participants know how these ticks can come on you without knowing. Also, share the time of the year they are more likely exposed.

Say: *“According to the CDC, people are more likely to get exposed during the months of April to October due to the warmer weather, when ticks are most active. Ask participants, what are the common times during the year they see ticks in their area.”*

Activity If applicable:

Pass around the jar that has ticks in carefully.



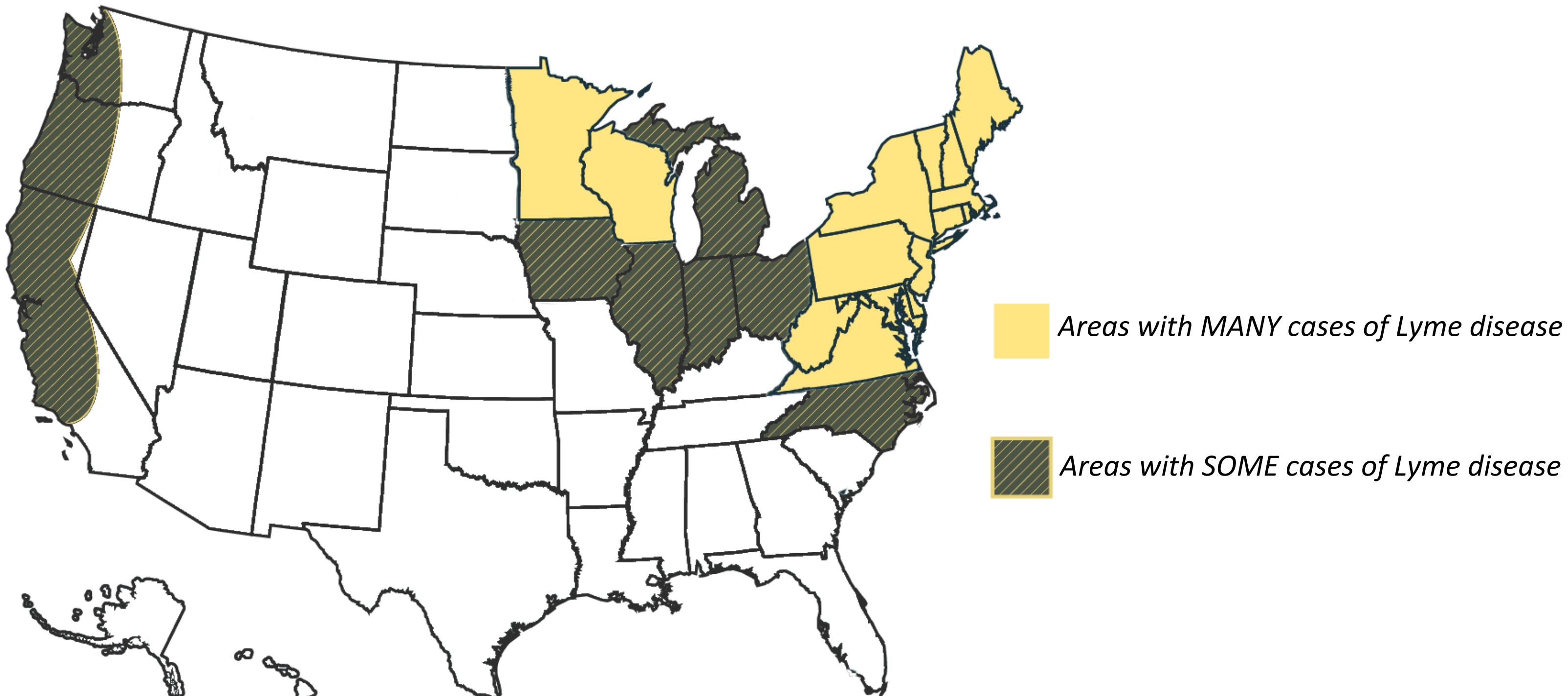
How is it spread?

Areas in the U.S. where Lyme Disease Occurs

Refer to the slide about work areas where farmworkers are more exposed to ticks.

- Talk about the map shown on the next slide and mention some of the states where ticks are more common.
- Mention how Lyme disease can lead to symptoms very similar to a common cold, such as low-grade fever, body aches, and fatigue, but it doesn't usually cause a very high fever, nasal congestion or cough.
- Ask about experiences with ticks in their area.
- Explain to participants that patients should share with the doctor or nurse any recent travel history, as they may have gotten a tick in an area where Lyme disease occurs.

Areas where Lyme Disease Occurs



Guide for the facilitator:



Lyme Disease Signs & Symptoms

Talk to participants about some common signs and symptoms of Lyme Disease. Once you get to the Erythema Migraines (EM) show some pictures of common cases of EM rashes.

Early signs and symptoms (3 to 30 days after tick bite)

Say: *"After you get a tick bite, you can experience the following symptoms between 3 to 30 days: Fever, chills, headache, fatigue, muscle and joint aches, and swollen lymph nodes may occur in the absence of a rash."*

Erythema Migrans (EM) rash:

- *"Begins at the site of a tick bite after a delay of 3 to 30 days (about 7 days)*
- *It expands gradually over several days reaching up to 12 inches (30 cm) or more across (refer to the picture)*
- *You may see a "bull's-eye" rash appearance as it enlarges but it may not present like that*
- *It may appear on any area of the body."*

Later signs and symptoms (days to months after tick bite)

Say: *"Other later signs and symptoms from days to months after the tick bite may include:*

- Severe headaches and neck stiffness
- Additional EM rashes on other areas of the body
- Facial palsy or loss of muscle tone or droop on one or both sides of the face
- Arthritis with severe joint pain and swelling, particularly the knees and other large joints.
- Intermittent pain in tendons, muscles, joints, and bones
- Heart palpitations or an irregular heartbeat
- Dizziness or shortness of breath
- Shooting pains, numbness, or tingling in the hands or feet, and
- Other symptoms that may require further diagnosis".

If someone is experiencing any of the symptoms above due to a tick bite it is important to seek medical attention.

Signs & Symptoms

Guía para el facilitador:



Seeking Medical Attention

Discuss with participants what they can do if they are bitten by a tick at work and experience symptoms.

What to do after a tick bite?

Explain that a single dose of doxycycline taken within 3 days of a high-risk tick bite can prevent Lyme disease.

Age Category <i>Categoría de edad</i>	Drug <i>Fármaco</i>	Dose <i>Dosis</i>	Maximum <i>Máximo</i>	Duration <i>Duración</i>
Adults / adultos	Doxycycline	200 mg orally / <i>oralmente</i>	N/A	Once/ <i>Una vez</i>
Children weighing less than 45 kg / <i>Niños que pesan menos de 99 lbs</i>	Doxycycline	4.4 mg/kg orally/ <i>oralmente</i>	200 mg	Once/ <i>Una vez</i>

It is also important to visit their nearest clinic. For additional help finding a clinic or health center, refer them to NCFH's bilingual (English<>Spanish) helpline "Call for Health" (*Una Voz Para la Salud in Spanish*).

Call for Health (*Una Voz Para la Salud in Spanish*) is a national program that was established by the National Center for Farmworker that offers toll- free, bilingual (English<>Spanish), health information and referral service program for farmworkers and their families.

Contact Information for bilingual (English/Spanish) calls :

- **Phone: 1 (800) 377-9968**
- WhatsApp (chat only): **1 (737) 999-4162**

Testing for Lyme Disease

- *Although antibiotic treatment is available, you may need further testing, which may include blood tests.*
- *Testing for Lyme disease can help determine how long it has been since the tick bite.*

Remember to always ask your healthcare provider for testing and if antibiotics after a tick bite are appropriate for you.



Seeking Medical Attention

How to Protect Yourself from Lyme Disease Using Proper Personal Protection Equipment (PPE)

As previously discussed, these ticks can be found in any work area that involves high grass, bushes, or field crops. A lot of workers do not notice them since they are very tiny and sometimes blend into their clothes or skin. Some people don't feel bites, and by the time they seek medical attention, it can be too late to treat. In this section, we will talk about steps that you can take to protect yourself at work.

Group Activity:

Materials:

- A box of old clothing, hats, gloves, face covers, and shoes for both regular days and workdays.
- Add some bandanas and hats.
- A mist bottle with water to represent a repellent or the repellent itself (DEET). If applicable, you can take some Permethrin to show how to apply it to work clothes before wearing them.

Step 1. Ask three volunteers to go up front and to dress up as they do when they go to work. (Let them dress like they would like to.)

Step 2. Ask participants why they chose those clothes and how will clothes protect them.

Step 3. Then ask the audience to score them with a smiley face (good!), straight face (acceptable), and sad face (can be better).

Step 4. Go over their outfits to see if they are appropriate for work or not.

Step 5. If they didn't use the Permethrin or mist bottle, ask them why not.

Emphasize: One of the most effective ways to prevent tick bites is to use permethrin treatment on clothes and shoes. Permethrin is NOT to be applied directly to the skin and can still offer protection after several washes. DEET is also a very effective repellent and should be applied directly to the skin.

How To Protect Yourself from Lyme Disease using proper Personal Protection Equipment (PPE)?



Steps To Treat Clothing With Permethrin

When you get to the section about Permethrin, make sure to go over the steps on how they can apply Permethrin to their clothing.



Step 1: Go outside and place your clothing on the ground. Read the label's instructions that are on the bottle.

Step 2: Start applying the Permethrin on your clothes and shoes. Again, make sure you are in a ventilated area.

Step 3: Once Permethrin has been applied, hang your work clothes and shoes to dry. Allow 24-36 hours to dry until you can use them.



1. Read the label's instructions.

2. Apply in ventilated areas.

3. Hang to dry.

Steps To Treat Clothing With Permethrin

Actions To Take At Home!

What to do with work clothes after work?

- *Wash clothes with hot water to kill any ticks that may have been attached to the clothes.*
- *After the clothes are washed, hang them on a clothing line in direct sunlight **or dry them in the dryer on high heat.***

What to do inside the house?

- *Take a shower to wash off ticks that might not yet be attached.*
- *If you have pets, make sure they are receiving regular tick prevention.*

Following these steps can help reduce any tick exposure at home.



Guide for the facilitator:

What To Do If You Get A Tick Bite?

For this activity, please show the video listed below on the QR code. or use the steps shown on the next page.

Group Activity:

Materials:

- A pair of tweezers
- A pack of stickers
- Water bottle and soap (if a hand washing station is not available)

Step 1. Ask three volunteers to go up front.

Step 2. Ask the participants to choose a sticker and to stick it on their arm.

Step 3. Ask participants to demonstrate us how to remove the tick (sticker) according to the video they just saw.

Step 4. Once the tick is removed, ask the participants to show us how to clean the area using water and soap.

Step 5. Let the audience decide if they followed the correct steps and provide feedback as needed.

Another activity that can be done with stickers is sticking them to any body parts where ticks are more likely to hide or be visible. You can use a participant or a mannequin for this activity, if applicable.



Tick Removal Video

By the end of the activity, participants will be able to remove a tick or help someone.



What to do if you get a tick bite?

Guide for the facilitator:

What To Do If You Get A Tick Bite?

For additional support and if time does not permit to show the video demonstration, share the handout that shows the steps to follow. Go over the steps with the audience, followed by a demonstration.



Use fine-tipped tweezers to grasp the tick as close as possible to the skin's surface.

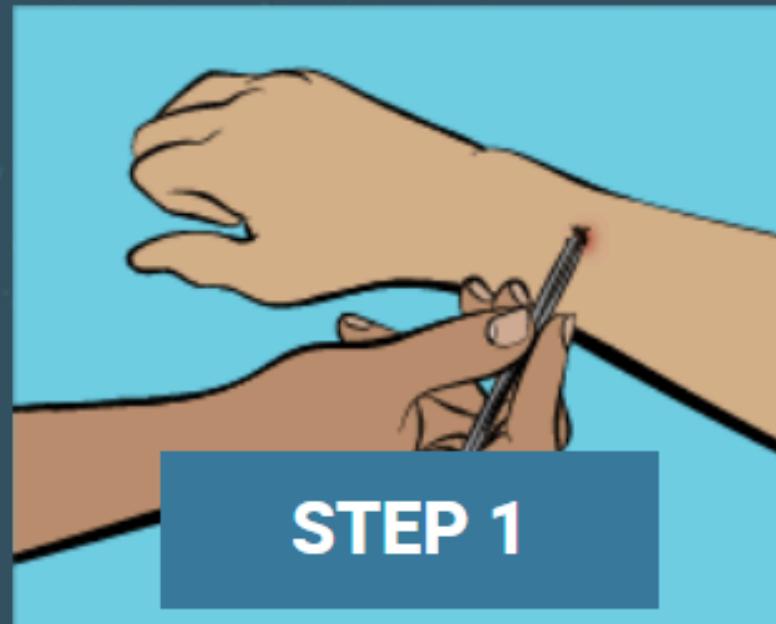


Pull upward with steady, even pressure. Do not twist or jerk the tick.

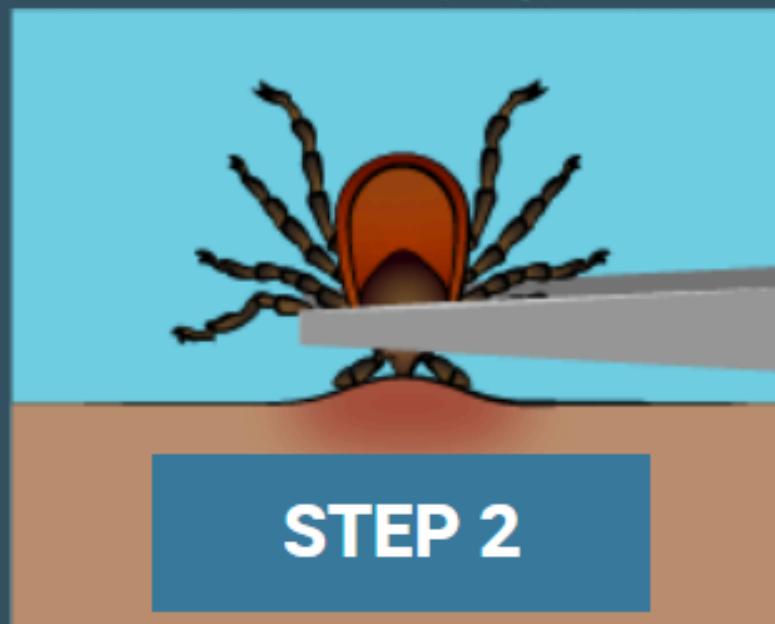


After removing the tick completely, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.

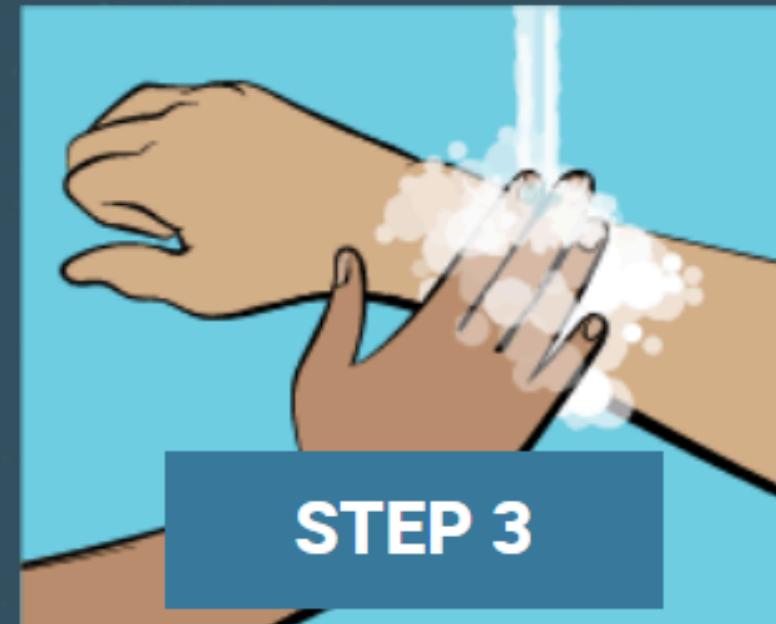
How to remove a tick



Use fine-tipped tweezers to grasp the tick as close as possible to the skin's surface.



Pull upward with steady, even pressure. Do not twist or jerk the tick.



After removing the tick completely, thoroughly clean the bite area and your hands with rubbing alcohol or soap and water.

What Not To Do If You Get A Tick Bite?

Share with participants the following information on what or what not to do in case of a tick bite.

If you get a tick bite:

- Never crush a tick with your fingers.
- Avoid covering the tick with petroleum, nail polish, or using heat.
- Do not dig around for any pieces left behind.

If you do these things, it will just allow the tick to stay on for a longer period. Remove the tick as quickly as possible!

The CDC doesn't recommend getting the tick tested because it cannot show if it is infected, or if it is, you may not feel symptoms.

If you feel sick after getting a tick bite, see your doctor as soon as you can and give details about the tick bite and follow treatment/testing instructions.



What not to do if you get a tick bite?

Key Takeaways Discussion

In this section, as the presenter, you will review the session's key points and identify barriers that may hinder participants from applying the new information. Physical barriers may include lack of access to PPE, access to medical treatment, or knowledge of Lyme disease.

Please feel free to tailor the questions and conversation to the group's challenges and interests to better support participants as you discuss with them.

You can start by saying: *"We covered a lot of information. Let's do a recap! What are the key takeaways from this session?"* (Allow for responses.)

You may or may not have many responses, which is okay. You can always review section that were covered previously to refresh them.

Example Questions:

- a. What can you do to protect yourself from tick bites?
- b. Do you know what to do after a tick bite?
- c. Can you identify symptoms of Lyme Disease?
- d. What are some workplace risks, challenges, and solutions?

Remember this is the first time some may have received a training on this topic, so it was a lot of information for them to take in in 45 minutes.

Questions to ask participants

- *How they will incorporate today's lesson into their daily lives.*
- *What can they do to help their co-workers and family members to prevent tick bites.*
- *Lastly, ask what is something they would like to learn more about regarding Lyme Disease.*

Key Takeaways Discussion



Guide for the facilitator:



This is the end of the training! Thank participants for taking the time to learn more about Lyme disease to protect their health and the health of their community members. Before you dismiss them, ask if anyone has any final questions.

Lastly, hand out any printed materials for participants to take back home (see additional resources on the next page.)

Thank you!



Guide for the facilitator:



Invite the audience to scan the QR codes presented on this slide. These QR codes are a mix of handouts and additional informational resources.

Additional Resources for Facilitators to share with participants



NCFH Lyme Disease Resources



CDC Lyme Disease Resources



CDC Lyme Disease Prophylaxis After Tick Bite



Tick Bite Bot (Only available in English only)