Tick and Lyme Disease Survey of Northwestern Pennsylvania Residents

Lyme disease is one of the most common tick-borne diseases in the United States. The Pennsylvania Department of Health, Northwest District Office, is working with local communities to assess knowledge of tick and Lyme disease, risk factors, and prevention for people living in northwestern Pennsylvania. As part of this effort, we are asking you to complete this, Tick and Lyme Disease Survey, which is completely voluntary and anonymous. Please answer the questions as accurately as possible, and complete one questionnaire per household. You may leave blank any question you do not wish to answer. If you have any questions about this survey, please feel free to contact the Pennsylvania Department of Health, Northwest District Office, at 724-662-6068.

1. Please answer the following: Are you a full time resident of Pa.? □ Yes □ No
   My gender is: □ Male □ Female
   My age is: _______________________

2. If there are children in your household, please write how many in each age groups:
   ___0-4 years ___ 5-9 years ___ 10-14 years ___15 years or more ___ No children

3. What county in Pennsylvania do you live in?
   □ Cameron □ Clarion □ Clearfield □ Crawford □ Elk
   □ Erie □ Forest □ Jefferson □ Lawrence □ McKean
   □ Mercer □ Venango □ Warren □ Other _______________________

4. What type(s) of outdoor activities do you and people in your household do? (Check all that apply.)
   □ Bike □ Farm □ Canoe/kayak/tube □ Go to a park □ Lawn care/mowing
   □ Camp □ Golf □ Ski/snowboard/tube □ Outside sports □ Hunting/ trapping/ scouting
   □ Garden □ Fish □ Horseback riding □ Hike/walk □ Other _______________________

5. For each of the photos below, please check whether you believe it is a tick or not a tick.
   □ Tick □ Not a tick □ Tick □ Not a tick □ Tick □ Not a tick □ Tick □ Not a tick □ Tick □ Not a tick

6. Indicate what describes your household as it relates to pet dog/cat(s)?
   □ We have a dog/cat. □ We do not have a dog/cat.

7. If yes to question 6, please indicate what describes your household as it relates to pet dog/cat(s) to reduce ticks? (Check all that apply.)
   □ We treat our dog/cat with a medicine.
   □ We do not treat our dog/cat with a medicine.
   □ We check our dog/cat for attached ticks.
8. How many days per week do individuals in your household typically spend outdoors in the spring, summer, and fall?
   □ Less than one □ One to two □ Three to five □ More than five □ I don't know.

9. On those days when time is spent outside, how many hours per day do individuals in your household typically spend outdoors?
   □ Less than one □ One to two □ Three to five □ More than five □ More than 10 □ I don't know.

10. Where do you get your information regarding ticks and tick-borne diseases? (Choose one.)
    □ Internet  □ PA Game Commission  □ Newspaper  □ TV
    □ Doctor  □ Pa. Department of Health  □ Medical text book  □ Radio
    □ CDC website  □ Friend or family member  □ I can't remember.  □ Other ______

11. Which is more likely to increase your exposure to ticks? (Choose one.)
    □ Walking under trees  □ Walking through high grass/brush

12. How long must a biting tick be attached to transmit a disease like Lyme disease? (Choose one.)
    □ Less than an hour  □ 24 hours  □ Tick doesn’t need to be attached.
    □ 12 hours  □ 36 hours or more  □ I don't know.

13. For each of the symptoms below, please check yes or no if you believe it is a symptom of Lyme disease.
    Red eyes □ Yes □ No  Hearing loss □ Yes □ No
    Rash □ Yes □ No  Sore throat □ Yes □ No
    Cough □ Yes □ No  Blurry vision □ Yes □ No
    Hair loss □ Yes □ No  Diarrhea □ Yes □ No
    Fever □ Yes □ No  Aches and pains □ Yes □ No

14. What type of repellent do you apply to yourself and your family members to reduce potential risk exposures? (Choose one.)
    □ I don’t apply repellents on my family members.
    □ I use a product containing DEET or Picaridin.
    □ I use a product with all natural active ingredients (e.g., oil of lemon eucalyptus).
    □ I use a repellent, but I don't know the active ingredients.

15. When you are outside in the summer and fall, how often do you (please check only one answer for each):

<table>
<thead>
<tr>
<th>Activity</th>
<th>1 0% of the time</th>
<th>2 25% of the time</th>
<th>3 50% of the time</th>
<th>4 75% of the time</th>
<th>5 100% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Apply bug spray to clothes/skin?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Wear light colored clothing?</td>
<td></td>
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<tr>
<td>c. Wear long sleeves?</td>
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<tr>
<td>d. Wear long pants?</td>
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<tr>
<td>e. Lay, sit, or kneel on the ground?</td>
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<tr>
<td>f. Wear shoes or boots?</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Tuck pants into socks or boots?</td>
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</tr>
</tbody>
</table>
16. When you are outside in the summer and fall, are there any measures that you do not take? Please list why. (Choose all that apply.)

<table>
<thead>
<tr>
<th>Measure</th>
<th>I nearly always do this measure.</th>
<th>I don’t think I need it.</th>
<th>Forgot</th>
<th>Doesn’t work</th>
<th>I don’t like the way it looks, feels, or smells.</th>
<th>I don’t have access to it.</th>
<th>I don’t know.</th>
</tr>
</thead>
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<tr>
<td>a. Apply bug spray to clothes/skin?</td>
<td>□</td>
<td>□</td>
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<td>□</td>
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<td>b. Wear light colored clothing?</td>
<td>□</td>
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<td>□</td>
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<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d. Wear long pants?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

17. After you have been outside in the summer and fall, how often do you:

<table>
<thead>
<tr>
<th>Activity</th>
<th>1 0% of the time</th>
<th>2 25% of the time</th>
<th>3 50% of the time</th>
<th>4 75% of the time</th>
<th>5 100% of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Check your body for ticks?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. Take shower within two hours of being outside?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

18. After being outside in the summer and fall, are there any measures that you do not take? Please list why. (Please check only one answer for each.)

<table>
<thead>
<tr>
<th>Measure</th>
<th>I nearly always do this measure.</th>
<th>I don’t think I need it.</th>
<th>Forgot</th>
<th>Doesn’t work</th>
<th>I don’t like the way it looks, feels, or smells.</th>
<th>I don’t have access to it.</th>
<th>I don’t know.</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Check your body for ticks?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. Take shower within two hours of being outside?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

19. Answer each of the following questions. (Please check only one answer for each.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Are you familiar with landscaping methods to create “tick-free zones” around your home?</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>b. Do you know how to check for ticks (e.g., clothing and body)?</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>c. Do you feel confident in identifying ticks?</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>d. Do you know the proper way to remove a tick after it has attached to your skin?</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

20. If you found a tick attached (not just crawling) on yourself or a household member, how would you remove it? (Check only one answer.)

- □ Pull straight out with tweezers
- □ Remove/squeeze with fingers
- □ Apply substance (e.g., vaseline). Or something else? __________________________
- □ Burn with a match
- □ I don’t know.
- □ Other ____________

21. Please estimate how many times in the past 12 months you or someone in your household found a tick on themselves or on clothing after being outside?

- □ One to three times
- □ Four to six times
- □ Seven to 10 times
- □ More than 10 times
- □ None
- □ I can’t remember.
22. Answer each of the following questions, (Please check only one answer for each.)

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Has anyone in your household ever visited a health care provider because of a tick bite?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Has anyone in your household ever been diagnosed with a tick-borne disease such as Lyme disease?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

23. If yes to question 22a, where did anyone in your household go to seek medical attention for a tick bite? (Choose all that apply.)

- Doctors’ office
- Emergency room
- Nurse practitioner/midwife
- I can’t remember.
- Urgent care
- Natural/home remedy
- Never had a tick bite
- Other __________

24. If yes, to question 22b, which tick-borne diseases have any persons in your household been diagnosed with? (Choose all that apply.)

- Lyme disease
- Babesiosis
- Spotted fever Rickettsioses
- I can’t remember.
- Anaplasmosis
- Erlichiosis
- Tularemia
- Other __________

25. If yes, to question 22b, how long ago was the most recent tick-borne disease diagnosis?

- Less than one year
- Three to five years
- More than 10 years
- One to two years
- More than five years
- I can’t remember.
- Other __________

26. If anyone in your household ever visited a health care provider for a known tick bite, please list why? (Choose all that apply.)

- I or they needed assistance to remove the tick.
- I or they did not have any illness but was concerned about getting a tick-borne disease.
- I or they was ill and thought I may have gotten a tick-borne disease.
- I or they went to receive an antibiotic. Was an antibiotic prescribed? Yes ☐ No ☐
- Other (Please specify.) __________

27. How effective are these preventative measures against tick-borne diseases?

<table>
<thead>
<tr>
<th></th>
<th>Highly effective</th>
<th>Somewhat effective</th>
<th>Not very effective</th>
<th>Not at all effective</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Avoid walking in high grass and leaves.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b. Walk in the center of trails.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>c. Drink plenty of water before you leave home.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d. Use bug spray.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e. Tuck your pants into socks or boots.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>f. Check your body for ticks.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>g. Get a bath or shower as soon as you can.</td>
<td>☐</td>
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</tr>
</tbody>
</table>

Thank you for your time in completing this survey. We appreciate your feedback!

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