Tick submission

How do I submit a tick for identification?

PHO only accepts ticks from Public Health Units and health care providers. If you have a tick from a human host and would like to submit it for testing, please contact your health care provider or your public health unit.

Health care providers should submit ticks to a Licensed Specimen Collection Centre, which will forward the tick(s) to PHO.

Do you test ticks that have not been recovered from a human host?

PHO does not accept ticks that are found:

- in the environment
- on floors or furniture
- dogs or other pets*

* If you find a tick on your pet, please take it to your veterinarian for identification.

What happens to ticks that are not identified as part of the Ixodes species?

The health care provider or health unit that submitted the tick for identification will receive a report with the identification of the tick and no further testing will be performed. Non-Ixodes ticks will be discarded after 6 months.

What happens to ticks that are identified as Ixodes ticks?

The health care provider or health unit that submitted the tick for identification will receive a report with the identification of the Ixodes tick, and comment stating that the tick will be forwarded to the National Microbiology Laboratory (NML) for further testing.

The NML will test ticks using the PCR testing method to determine if the tick is infected with human pathogens, including the agent of Lyme disease.
My health unit will not accept a tick for identification.

The purpose of tick identification and polymerase chain reaction (PCR) testing is to conduct surveillance – gathering data and monitoring new and emerging tick populations in Ontario.

Certain parts of Ontario have established tick populations, and submitting ticks from these known areas does not provide additional information. Each health unit develops its own criteria for accepting ticks for surveillance. Please follow the advice of your health unit. If you are concerned about tick bites and potential exposure to pathogens, please consult with your health care provider.

Can I email a picture of a tick for identification?

PHO will not accept emailed photos of ticks for identification. If you have a tick that has been removed (from a human source only), please contact your local public health unit or your health care provider to follow correct submission procedures.

What is the best way to submit multiple ticks?

See the chart below:

<table>
<thead>
<tr>
<th>Ticks</th>
<th>Human host</th>
<th>Submission</th>
<th>Requisition form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple ticks</td>
<td>One host</td>
<td>Submit in one container, and label with host information</td>
<td>Submit one form</td>
</tr>
<tr>
<td>Multiple ticks</td>
<td>Multiple hosts</td>
<td>Submit in separate containers and label each container with that host’s information</td>
<td>Submit one form per host</td>
</tr>
</tbody>
</table>

See the tick submission checklist at the end of this document for more information on submission criteria.

Tick testing

What is the turnaround time for tick identification?

<table>
<thead>
<tr>
<th>Laboratory</th>
<th>Turnaround time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health Ontario</td>
<td>Up to 21 days*</td>
</tr>
<tr>
<td>National Microbiology Laboratory (if tick is referred for Lyme tick testing)</td>
<td>up to 6 months</td>
</tr>
</tbody>
</table>

*It may be longer in peak times (May-July and Oct-Nov).

Please note: All *Ixodes* species ticks are sent to the NML for Lyme tick testing.
Tick testing results

How are results used?

The identification and PCR testing provides data to monitor emerging tick populations in Ontario. Results are used to update the Ontario Lyme Disease Estimated Risk Areas Map each year.

Will the turnaround time affect the clinical management of the human source that the tick was pulled from?

Patients should be managed based on tick exposure and potential transmission of tick-borne pathogens, and not on results of the tick submission.

How are results relayed to the patient?

Reports from PHO are only available to the health care provider or the Public Health Unit that submitted the tick(s). If you would like to find out test results, please consult with your health care provider or public health unit (depending on who submitted the tick). Due to privacy concerns, laboratories do not provide results directly to citizens.
Tick submission checklist

If you are missing any of these items, the tick will not be tested:

Tick source
- Tick(s) must be from a human host only.

Form
- Ticks must be submitted only with the PHO Surveillance Form for Tick Identification (if any other form is used, the tick will not be tested).
- All mandatory tick information must be completed on the form. Ticks submitted with incomplete forms will not be tested.
- The form must have the name and address of the health care provider or health unit that submitted the tick.
- The form must also have the name and address of the host.
- The name of the host on the form must match the name of the host labelled on the container – if this information does not match exactly, the tick will not be tested.