

**MICROBIOLOGY  
LABORATORY,  
RESEARCH &  
CONSULTING SERVICES**

- Drinking Water Testing
- Drinking Water Treatment Unit (DWTU) Validation
- Microbial Identification
- Electron Microscopy (SEM/EDS)
- Indoor Air Quality (IAQ) Bioaerosols
- Biosolids & Wastewater Pathogen Analyses
- Research & Development
- Food Safety

**Analytical  
Services, Inc.**

130 Allen Brook Lane  
Williston, VT 05495  
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802-878-5138  
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analyticalservices.com

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# Tick Testing Information

Analytical Services, Inc. (ASI)

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## Introduction

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Ticks are parasites that are dependent on the blood of humans and animals. There are more than 850 species of ticks, many of which have been shown to carry disease. If bitten by an infected deer tick, humans and animals can be infected with the Lyme Disease spirochete bacterium called

*Borrelia burgdorferi*.

Deer ticks in the young or nymph stage are tiny, about the size of a poppy seed. These juvenile ticks are most likely to bite humans and are the main source of transmitting Lyme Disease. The primary season for nymphal tick activity is mid-May to August. Typically, the likelihood of transmission increases the longer the tick is attached. Because these ticks are small and their bite is usually painless, they can go unnoticed. Larger deer ticks can also transmit the disease, but are usually noticed due to their size. Not all ticks carry the bacterium that causes Lyme Disease, and others like the dog tick, can carry the organism, but have not been shown to transfer the disease to humans or animals. It is estimated that twenty-five percent (25%) of ticks in the nymphal stage and fifty-percent (50%) of adult deer ticks are infected with the Lyme Disease bacterium.

In addition to the usual precautions to avoid tick contact (avoidance, protective clothing, inspection, insect repellent, etc.) the most important preventive measure to reduce the risk of Lyme Disease, or other potential diseases spread by ticks, is to remove the tick as soon as it is discovered.

## Tick Removal

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Ticks feed on blood by inserting their mouth parts into the skin. Their body remains outside the skin. Remember, your chances of acquiring Lyme Disease are low if the tick is removed within the first 48 hours that the tick is attached to the skin. Don't panic. Tick removal can be performed safely and effectively by following these steps:

- ❖ If available, wear a pair of gloves. You should not handle the tick with your bare hands.
  - ❖ With a pair of tweezers, grasp the tick as close to the skin as possible, near the "head" of the tick. Pull gently and firmly in an upward steady motion until the tick releases its hold on the skin. Do not twist.
  - ❖ If the tick is going to be sent for testing, save the tick in a small plastic jar or zip-lock plastic bag.
  - ❖ Wash the area with a disinfectant and wash your hands with soap and water.
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## Precautions

- Be patient.
- You want to avoid crushing the tick's body. Fluids within the tick might contain infectious agents.
- Do not apply petroleum jelly, nail polish, alcohol or a hot match.
- If the tick is not going to be sent for testing, dispose of the tick by placing it in alcohol and / or flushing it down the toilet.
- Some mouthparts might break off and remain within the skin. Relative to Lyme Disease, this is usually not a concern. The body of the tick, if successfully removed, is where the infective agent is. Treat the remaining body parts as you would a splinter and disinfect as above.
- Monitor the site of the bite for appearance of a rash for at least a month. Contact your physician promptly with any concerns.

## Tick Testing

Lyme Disease is a bacterial infection caused by a spirochete called *Borrelia burgdorferi*. Analytical Services, Inc. will identify the tick and use a highly sensitive genetic screen using Polymerase Chain Reaction (PCR) to determine if a suspect tick is carrying this bacterium. The identification of the tick and the test results will be important information for you and your physician. Other important information you and your doctor will need to determine the risk of Lyme Disease exposure include:

- ❖ If possible, a determination of how long the tick was attached.

- ❖ Was the tick engorged?  
That is, did the tick appear to be full of blood when removed?

Please note that tick testing for the bacterium responsible for Lyme Disease is a screen and will not definitively rule out or confirm the presence of *B. burgdorferi*. It is intended to provide important information for you and your physician to determine, when combined with other information, the risk of exposure to Lyme Disease and any subsequent clinical follow-up and treatment. ASI does not perform clinical (blood or tissue) testing for the presence of Lyme Disease in humans or animals.

## Sending the Tick for Testing

- ❖ The tick can be alive or dead for PCR testing.
- ❖ Place the tick in a sealed, zip-lock type, plastic bag and enclose in an envelope or package suitable for shipping.
- ❖ ASI recommends sending the tick by overnight or priority carrier, two day air, or UPS ground.

**By US Mail**  
**Analytical Services, Inc.**  
**Tick Testing**  
**% \$'5`Yb'6 fcc\_`@**  
**Williston, VT 05495**

- ❖ Send the tick with your name, address, phone number (with area code) and prepayment to:

**Overnight Courier: TICK**  
**TESTING Analytical**  
**Services, Inc. 130 Allen**  
**Brook Lane Williston, VT**  
**05495**

- ❖ The cost is \$75.00 per tick. You may pay by credit card (include your card number and expiration date), personal or bank check. Ticks will not be processed without prepayment. Generally, insurance companies do not cover tick testing. Complete and enclose the attached order form in the package.

## Results

Allow two weeks or ten business days for results. All reports will be mailed (or emailed if an address is provided).

## For More Information

There are numerous sources available to gain additional information on Lyme and other tick-borne diseases, clinical testing and treatment. In addition to your local regional or state extension service, State Public Health Department and local hospitals, you might wish to investigate the following:

- ❖ Centers for Disease Control (CDC) - (970) 221-6400  
[www.cdc.gov](http://www.cdc.gov)
- ❖ American Lyme Disease Foundation - (800) 876-5963  
[www.aldf.com](http://www.aldf.com)

# Analytical Services, Inc.

ASI Tick Testing Order Form

Place the tick in a sealed, plastic zip-loc bag.

Include check for \$75.00 or credit card information.

Print and fill in this order form, and send with the tick to:

TICK TESTING ANALYTICAL  
SERVICES, INC. 130 Allen Brook  
Lane, Williston, VT 05495

(802) 878-5138

**Name:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Address:**

**Phone:**

**Area Code ( )** \_\_\_\_\_

**MC**       **VISA**       **Check Enclosed**

**Card No:**

**Exp. Date:**

**Signature:**