

Instructions for Submitting Ticks for Laboratory Testing

The Department of State Health Services (DSHS) had partnered with the University of North Texas Health Science Center (UNTHSC) DNA Identity/Lyme Disease Laboratory to test ticks for disease agents in the *Borrelia*, *Ehrlichia*, and *Rickettsia* genera using molecular methods. Ticks must first be submitted to the DSHS Health Service Region 7 Zoonosis Control office for identification after which they will be forwarded to UNTHSC for testing. There is no charge for testing, however this service is available only to Texas residents submitting specimens from a Texas address. Submissions received from outside of Texas will not be tested and will not be returned to the submitter.

Tick Collection

1. Only ticks that were attached to a human host may be submitted for testing. Do not submit ticks removed from animals.
2. When handling or removing ticks, use forceps or tweezers. If you use your hands, wear disposable gloves or shield your fingers with a paper towel or other suitable material. When removing ticks from a person, grasp the tick as close to the skin as possible and pull upward with steady, even pressure. **DO NOT** twist or jerk the tick, as this may cause the mouthparts to break off, leaving them embedded in the skin.
3. Carefully place the tick(s) into a sturdy, leak-proof container or screw cap vial. Ticks may be submitted live or preserved in 70% ethyl or isopropyl alcohol. **DO NOT** preserve ticks in formalin, as this chemical will interfere with laboratory testing. Place ticks from different persons/collection sites into separate vials, marking each vial with appropriate identifying information so that each can be matched to its corresponding tick submission form.

Sample Submission

1. Completely fill out a Texas Tick Submission Form for each vial or container of ticks submitted.
2. Place the vial(s), sufficiently padded if breakable, and the accompanying Tick Submission Form(s) into a mailing tube and mail to:

Texas Department of State Health Services
Health Service Region 7
ATTN: Zoonosis Control
2408 South 37th Street
Temple, TX 76504

Identification and Testing

1. DSHS Health Service Region 7 personnel will identify all ticks to genus and species, stage of development, and state of engorgement. Turn around time will be 1-2 days.
2. DSHS Health Service Region 7 personnel will forward the identified ticks to the UNTHSC laboratory for testing.
3. All ticks will be tested for the presence of pathogenic agents from the Borrelia, Ehrlichia, and Rickettsia genera. All positives will be further identified to the species and, where applicable, to the subspecies and/or strain.
4. Turn around time for molecular testing is approximately 3 working days for negative results and 4 working days for positive results, as all samples testing positive undergo additional testing for sequence verification.

Result Reporting

1. DSHS Health Service Region 7 personnel will communicate test results to the original submitter, usually within 2 weeks of receiving the specimen(s).

Contact Information

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