

Occupational Tick-Borne Disease (TBD) Prevention – A new and robust strategy is now required.

In May of 2017 CONN-OSHA announced its plan to implement of a new and innovative strategy to prevent tick-borne disease transmissions at Connecticut workplaces by applying the Personal Protective Equipment (PPE) standards within CONN-OSHA regulations. ([See CONN-OSHA Quarterly May 2017](#)). CONN-OSHA has determined that within the State of Connecticut, effective preventive measures need to be implemented as part of the routine workplace health and safety programs that would protect employees from exposures to tick-borne diseases.

The State of Connecticut Department of Public Health (DPH), the Connecticut Agricultural Experimentation Station (CAES), the Department of Energy and Environmental Protection (DEEP), University of Connecticut (UConn), local health departments, and health districts routinely disseminate research findings and public health information, bulletins, advisories and recommendations on tick-borne disease (TBD) prevention. As such, there is a wealth of public health information. It is a role of Connecticut's public health apparatus to provide advice and recommendations to the public in order to enhance and increase awareness for the prevention of communicable disease.

Currently, CONN-OSHA inspections find that most employers do not have active TBD exposure prevention strategies in place. Effective strategies would include training on recognizing tick habitat, exposure avoidance, use of repellants, tick checks, blousing or tucking pant legs into socks, light colored work clothing, hygienic practices, correct tick removal, and reporting tick bites.

The debilitating tick-borne infection of Lyme disease was identified in Connecticut in 1975. Lyme disease has rapidly increased in range and frequency throughout New England, the mid-Atlantic and north-central states and has become the most common vector-borne disease in the United States. There are now seven tick-borne diseases known to have been transmitted in Connecticut.

The Powassan Virus (POWV) is an established and endemic zoonotic disease found during Connecticut tick and deer surveys. The first human transmission of a POWV infection in Connecticut occurred in the month of November 2017. It is currently considered a rare infectious disease. However it has a 10% fatality rate with cases having neuroinvasive involvement, and 50% of those who survive experience varying degrees of permanent brain damage and neurological impairments.

New and emerging TBDs in Connecticut are posing problems and challenges to employers and employees relevant to preventing occupational exposures. Workplace prevention of TBDs need to be implemented to provide a safer work environment.

Research studies are indicating that Connecticut woodland fauna ecology and environmental changes have been in flux for decades. New diseases and vector competent ticks are being introduced into our landscape and are advancing across the regional geography. Higher abundance of disease infected ticks is being reported within the fragmented forest landscape environments where our citizens live and work.

Now, with higher rates of human infections and emergence of new TBDs into our geography a fresh look at our relationship with our outdoor life and work environments is required. Those of us having occupational safety and health workplace responsibilities must meet the challenge of addressing these health hazards by raising the level of awareness to these pervasive diseases. In the long term, we must begin to address the larger disease ecology and vector control problems on our horizon. In the short term, we will begin to control our exposures to these preventable diseases.

By implementing workplace prevention and controls with the application of the existing CONN-OSHA standard 1910.132 "Personal Protective Equipment," we will begin to attack this pervasive and persistent public health problem from a different direction with a new and innovative approach. This inexpensive strategy does not require new regulations or amended legislation. It will raise public awareness and begin to change the way we work within high density disease endemic environments in our state.

All covered agencies within the State of Connecticut will be required to assess their workplaces for the known and recognized hazard of occupational exposure to tick-borne disease and to implement prescribed workplace control measures. Private sector employers within Connecticut under the jurisdiction of Federal OSHA should begin to implement these initiatives as well.

Below is a list of the best and most directly available resources for Connecticut employers to begin their assessments and to implement safety and health practices within workplaces having exposure to TBD.

References/ resource links for employers:

1. OSHA pub. 3151-12R 2004 "Personal Protective Equipment"
2. OSHA pub. 3017 Rev. 2002 "Job Hazard Analysis"
3. 29 CFR Part 1910 General Industry Regulations – Standard 1910.132 "Personal Protective Equipment" - Sections 1910.132(a)(1) through (h)(7)
4. www.cdc.gov/niosh/topics/lyme/recomendations.html - National Institute of Occupational Safety and Health (NIOSH) "Lyme Disease Recommendations for employers and workers."
5. www.cdc.gov/niosh/topics/tick-borne/recommendations.html - NIOSH "Tick-borne Diseases, Recommendations for Employers and Workers"
6. Connecticut Agricultural Experimentation Station (CAES) "Tick Management Handbook" – Kirby Stafford III, Ph.D. Bulletin No. 1010 at www.ct.gov/caes - publications.
7. CASE Fact Sheet - "The Prevention of Tick Bite and Tick-Borne Disease: Tick Checks and the Use of Insect Repellents" – Dr. Kirby C. Stafford III at www.ct.gov/caes
8. CAES Pamphlet "Ticks, Lyme Disease and other tick borne disease, Northeastern United States."