



PUBLIC HEALTH MATTERS

A Newsletter for Healthcare Professionals

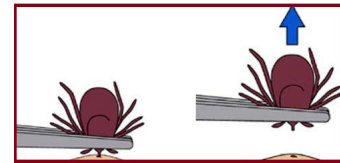
Update on Lyme Disease

Lyme disease is caused by the bacteria *Borellia burgdorferi*, transmitted by *Ixodes Scapularis*, also known as the blacklegged tick or deer tick. Currently, Northeastern Ontario including Timiskaming Health Unit, is considered low risk for both ticks and Lyme disease.

We have no identified risk areas and submit low numbers of ticks for testing. Timiskaming Health Unit has no history of Lyme disease or positive ticks acquired within our health unit's borders. As such, we only engage in passive tick surveillance. High risk areas have been identified in Southern Ontario, Eastern Ontario, and Northwestern Ontario.



Ticks can only transmit Lyme disease after they have been attached for 24 hours. The Public Health Agency of Canada advises that ticks are most effectively removed with a fine pair of tweezers/forceps. Grasp the tick as close to the skin as possible. The forceps should be held at a right angle to the main axis of the tick's body. Gently pull the tick away from the skin. Avoid twisting or turning the tick during removal as this can cause the tick's mouthparts to break off. When appropriate, disinfect the feeding site after the tick is removed. Once removed, immediately transfer the tick to a collection vial.



Proper tick removal

Ticks of human origin can be dropped off at a health unit office during regular business hours. From there, they are sent for identification by an entomologist at Public Health Ontario. Ticks identified as *Ixodes Scapularis* are then tested to determine if they carry Lyme disease. This test is intended for surveillance purposes due to a long turnaround time and the likelihood that more than one tick was attached the patient.

Lyme disease is reportable in Ontario. Early localized Lyme disease usually presents as an acute illness characterized by fever, myalgia, headache and the presence of an erythema migrans (or bulls-eye) rash. While not all patients will develop an EM rash, most patients will present with an EM rash within 7 days of the tick bite a range of 3 to 30 days. Patients that present with an EM rash greater than 5 cm in diameter after possible exposure or have laboratory confirmation of Lyme disease, are reportable to public health.



2 EM rash at the site of a tick bite.

The laboratory testing for Lyme disease is difficult to interpret and the test will cross-react with many common diseases. A chart is attached to help aid in interpreting 2-tier serological testing results. For more information on ticks and Lyme disease, please see www.publichealthontario.ca

Other News

WHAT IS RADON?

Radon is a colourless, odourless, radioactive gas that occurs naturally in the environment. It comes from the natural breakdown of uranium in soils and rocks. When radon is released from the ground into the outdoor air, it is diluted and is not a concern. However, in enclosed spaces like homes, it can sometimes accumulate to high levels, which can create a health risk.



The current Canadian guideline for radon in indoor air for dwellings is 200 becquerels per cubic metre (200 Bq/m³). This was recently reduced from 800 Bq/m³.

WHAT ARE THE HEALTH EFFECTS OF RADON

Extensive epidemiological evidence from studies of underground uranium miners, complemented by recent residential radon studies in Europe and North America, have shown that there is a measurable risk of developing lung cancer from radon exposure at levels commonly found in residential homes. This risk exists for both smokers and non-smokers, although malignancy from radon exposure is especially likely in cigarette smokers. By informing patients about the health risk posed by radon exposure and encouraging homeowners to test their homes to determine radon levels, health professionals can have a positive impact on the national effort to prevent radon-induced lung cancer.

HOW CAN RADON INDUCE CANCER?

If inhaled, radon decay products can become deeply lodged in the lungs, where they emit ionizing radiation which can penetrate the cells of mucous membranes, bronchi, and other pulmonary tissues. The ionizing radiation energy affecting the bronchial epithelial cells is believed to initiate the process of carcinogenesis. Although radon-related lung cancers are mainly seen in the upper airways, radon increases the incidence of all histological types of lung cancer, including small cell carcinoma, adenocarcinoma, and squamous cell carcinoma.

An individual's risk of getting lung cancer from radon depends mostly on three factors: the level of radon, the duration of exposure, and their smoking habits. Either smoking or radon exposure can independently increase the risk of lung cancer; however, exposure to both greatly enhances that risk.

RISK OF DEVELOPING LUNG CANCER FROM RADON

The risks are greater for smokers and those exposed to second-hand smoke. The lifetime risks listed in the table on the following page represent the risks of developing lung cancer due to radon exposure and for smokers the combined risk of tobacco use and radon exposure.

Non-smokers exposed to radon at the new guideline level of 200 Bq/m³ have a 2% lifetime chance of developing lung cancer. For a smoker, this risk increases to 17% at 200 Bq/m³.

LIFETIME RISKS TO A SMOKER EXPOSED TO RADON

Lung cancer risk for lifetime exposure to radon at 800 Bq/m ³	30%
Lung cancer risk for lifetime exposure to radon at 200 Bq/m ³	17%
Lung cancer risk from smoking only	12%

LIFETIME RISKS TO A NON-SMOKER EXPOSED TO RADON

Lung cancer risk for lifetime exposure to radon at 800 Bq/m ³	5%
Lung cancer risk for lifetime exposure to radon at 200 Bq/m ³	2%
Lung cancer risk from smoking only	1%

To learn more connect to this on-line learning module; <https://machealth.ca/programs/radon/>

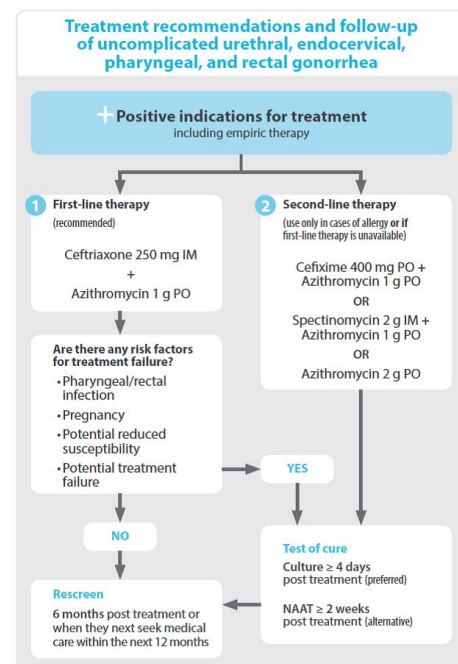
Gonorrhea and Chlamydia Treatment

Reminder from the Sexual Health Team:

Our Sexual Health Clinics provide free and confidential services for men and women including STI testing and free treatment.

Below are links to specific treatment for Gonorrhea and Chlamydia respectively.

Guidelines for Gonorrhea in Ontario changed as of 2013, please refer to this guidelines.



Guidelines for Chlamydia, please refer to this guidelines; <http://www.phac-aspc.gc.ca/std-mts/sti-its/cgsti-lcdcits/section-5-2-eng.php>

Table 3. Adults (non-pregnant and non-lactating): urethral, endocervical, rectal, conjunctival infection

Preferred	Alternative
<ul style="list-style-type: none"> • Doxycycline 100 mg PO bid for 7 days [A-I] 	<ul style="list-style-type: none"> • Ofloxacin 300 mg PO bid for 7 days [B-II]
OR	OR
<ul style="list-style-type: none"> • Azithromycin 1 g PO in a single dose if poor compliance is expected². [A-I] 	<ul style="list-style-type: none"> • Erythromycin 2 g/day PO in divided doses for 7 days² [B-II]
	OR
	<ul style="list-style-type: none"> • Erythromycin 1g/day PO in divided doses for 14 days² [B-I]

* If vomiting occurs more than 1 hour post-administration, a repeat dose is not required.

† Erythromycin dosages refer to erythromycin base. Equivalent dosages of other formulations may be substituted (with the exception of the estolate formulation, which is contraindicated in pregnancy). If erythromycin has been used for treatment, test of cure should be performed 3-4 weeks after completion of therapy.