

Nexus



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with the Health Care Community

Lyme Disease

In 2010, Lyme Disease was identified in the Health Unit region both in the Thousand Island area and in Murphy Point Park. We tested 382 ticks from human bites and had 32 positive results for *B. burgdorferi*, the causative agent in Lyme Disease. There were 11 confirmed cases of Lyme Disease in 2010.

If an individual finds an attached tick, it should be removed promptly using a pair of tweezers and the bite area treated with an antiseptic. Keep the tick in a small container and bring it into the nearest Health Unit office for identification and testing.



Photo courtesy of Aran District Council, West Sussex, England

More information about preventing tick bites is available at www.healthunit.org/hazards/documents/lyme.htm The tick needs to be attached for about 24 hours to cause disease. About 70-80% of individuals with Lyme Disease will have the characteristic bulls-eye rash (above). Other early symptoms are malaise, fever, headache, and myalgia.

The ELISA for IgM antibodies and Western immunoblotting tests are the two Health Canada approved tests for serology. Serology is not sensitive or specific in early stages so it is important to treat if symptoms after a tick bite suggest Lyme Disease. The early treatment is doxycycline 100 mg bid, or amoxicillin 500 mg 3-4 times daily for 2 weeks.

Some studies have shown that a single 200-mg dose of doxycycline immediately after a tick bite has reduced the onset of the bulls-eye rash (www.nejm.org/doi/pdf/10.1056/NEJM200107123450201) while others have not. The Centres for Disease Control in Atlanta and the Public Health Agency of Canada do not currently include this in their guidelines for preventing or treatment of Lyme Disease. Very few people who had a tick bite developed the infection (3.2% in the placebo group). So many people would receive doxycycline who don't need it. Early treatment once symptoms appear can prevent the adverse sequelae of Lyme Disease so this is the recommended approach.

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REGIONAL FAST FACTS

	ADULTS	
	<u>Leeds, Grenville, Lanark</u>	<u>Ottawa</u>
Women daily smoker	15.0%	8.1%
Men daily smoker	27.0%	10.8%
Women overweight BMI 25-29.9	35.4%	24.3%
Women obesity BMI ≥ 30	16.9%	13.7%
Men obesity ≥ 30	28.1%	17.6%
Adults 5+ fruit/vegetable	37.6%	48.0%
Adults moderately active/active	57.8%	60.3%
Men heavy drinking	38.3%	28.8%

(source: Statistics Canada, Canadian Community Healthy Survey, 2009)

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nexus ('nek-sus) noun,
Latin: bond, tie; from
nectere - to bind : a
connection or link between things,
persons, or events esp. that is or is
part of a chain of causation

Source: Merriam-Webster's
Dictionary of Law, © 1996
Merriam-Webster, Inc.



Immunizations

■ Prevnar 13

As Prevnar 13 has now replaced Synflorix in Ontario's publicly funded immunization program, all outdated Prevnar and Synflorix vaccine should now be returned to the Health Unit. Prevnar 13 is a new vaccine protecting children against 13 serotypes of *Streptococcus pneumoniae* (1, 3, 4, 5, 6A, 6B, 7F, 9V, 14, 18C, 19A, 19F and 23F). www.phac-aspc.gc.ca/publicat/ccdr-rmtc/10vol36/acs-12/index-eng.php

The current recommendation is to give Prevnar at the same time as other infant immunizations but in a separate syringe and at a separate site.

- For **low risk children** 3 doses are given at 2, 4 and 12 months of age. Three doses does not provide inferior immunity compared to four doses. If parents do not want their child to have three vaccines at 12 months (MMR, Meningococcal C, and Prevnar 13) then they can be spaced out between 12 and 15 months provided the parents can be counted on to return.
- For **high risk children** 4 doses are given at 2, 4, 6 and 15 months.
- If a **child has started** their pneumococcal immunization series with a different product, they can complete it with **Prevnar 13**.
- If a low risk child **who is 2 years of age in 2011** has completed their pneumococcal immunization series, they should receive one dose of Prevnar 13.
- If a high risk child **who is under age 5** has completed their pneumococcal immunization series, they should receive one dose of Prevnar 13.

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Note:

High risk children are considered those with chronic conditions that predispose them to pneumococcal infection:

- | | |
|--|---|
| <input type="checkbox"/> Chronic CSF leak | <input type="checkbox"/> Hematopoietic stem cell transplant (candidate or recipient) |
| <input type="checkbox"/> Chronic neurologic condition that may impair clearance of oral secretions | <input type="checkbox"/> Human immunodeficiency virus (HIV) infection |
| <input type="checkbox"/> Cochlear implants (including those children who are to receive implants) | <input type="checkbox"/> Immunosuppressive therapy including use of long term corticosteroids, chemotherapy, radiation therapy, post-organ-transplant therapy, and certain anti-rheumatic drugs |
| <input type="checkbox"/> Chronic cardiac or pulmonary disease (excluding asthma) | <input type="checkbox"/> Chronic kidney disease, including nephrotic syndrome |
| <input type="checkbox"/> Poorly controlled diabetes mellitus | <input type="checkbox"/> Chronic liver disease (including hepatitis B and C, and hepatic cirrhosis due to any cause) |
| <input type="checkbox"/> Asplenia (functional or anatomic) | <input type="checkbox"/> Malignant neoplasms including leukemia and lymphoma |
| <input type="checkbox"/> Sickle cell disease or other hemoglobinopathies | <input type="checkbox"/> Solid organ or islet cell transplant (candidate or recipient). |
| <input type="checkbox"/> Congenital immunodeficiencies involving any part of the immune system, including B-lymphocyte (humoral) immunity, T-lymphocyte (cell) mediated immunity, complement system (properdin, or factor D deficiencies), or phagocytic functions | |

NEW:

Measles, Mumps Rubella and Varicella (Priorex Tetra)

The Ministry of Health and Long-Term Care has announced funding of a new vaccine, MMRV-Priorex Tetra, combining measles, mumps, rubella and varicella into one vaccine, and it will become part of the childhood immunization schedule in August 2011.

The recommended schedule will be MMR at 12 months, varicella at 15 months, and MMRV at age 4 to 6 years. Parents will still have the option of keeping the MMR and varicella vaccines separate if they wish. More information will be provided by the ministry in August.

In 2010, Canada's National Advisory Committee on Immunization (NACI) and Ontario's Provincial Infectious Diseases Advisory Committee Immunization Subcommittee (PIDAC/PSI) recommended that children receive a second dose of varicella vaccine.

Since the introduction of the varicella immunization program in 2004 the average number of reported cases has reduced from an average 15,000 to an average of 8,000 cases per year in Ontario.

Recent studies have suggested that a second dose of the varicella vaccine would help to improve protection and reduce varicella cases by 22%, which in turn reduces the number of children who get complications from chicken pox.

Chlamydia

We have seen a 38% increase in reported cases of Chlamydia in the last quarter of 2010 compared to 2009, as well as an outbreak in one of our local high schools.

Screening high risk individuals is an important component of a Chlamydia control program: www.phac-aspc.gc.ca/publicat/cjhs/cjhs7-eng.php. Health providers are encouraged, whenever possible, to screen at-risk groups which include all sexually active males and females under 25 years

NEW: Rotavirus Vaccine

The Ministry of Health and Long-Term Care has announced that they will fund a new rotavirus vaccine for infants starting in August 2011. More details about the vaccine will be released in August.

**NEW:
Adacel for Adults <65 years old**

In May 2011, the Ontario Ministry of Health announced that they will be supporting the provision of one dose of Adacel for adults aged 19 to 64 who have not had at least one dose of ADACEL as a child/teen. It is a combined vaccine that provides protection against diphtheria, tetanus and pertussis (Tdap). This will enhance pertussis immunity among adults and thus increase protection of children against pertussis.

If a child has missed his/her 4-6 year old booster (Quadracel) the child should receive Adacel and also Inactivated Poliovirus Vaccine (IPV). Quadracel is only to be given to children under the age of 7 because of the increased diphtheria content which could cause an adverse reaction among older children.

Adults over age 64 can still purchase the vaccine at a community pharmacy with a prescription and then take the vaccine to the Health Care Provider's office for administration.

of age. Pregnant women should also be screened at the first prenatal visit. Urine Nucleic Amplified Acid Testing (NAAT) can be used for males and females of any age. Collection should be initial 10-20 mL of urine stream (not mid-stream). Preferred treatment is Azithromycin in a single 1 gram dose. The Health Unit is able to provide Chlamydia treatment at no cost to the individual. In addition, Public Health Nurses are able to assist with partner notification, testing and treatment.

■ Monthly vaccine inventory and temperature log

All offices providing immunizations to children and adults need to submit a monthly vaccine inventory and temperature log whether or not new vaccine is ordered.

The fridge temperatures must be recorded and cleared twice a day. If there is a temperature that is out of range, either below 2°C or above 8°C, it is very important that you contact your local public health unit immediately at 613-345-5685 or 613-283-2740.

For Lanark offices, vaccine orders should be placed by the 15th of the month and pick-up is on the 4th Friday of the month. For Leeds-Grenville offices, orders should be placed by the 28th of the month and pick-up is on the 2nd Friday of the month. While we encourage health care providers to predict how much vaccine they will need each month, we recognize that you may get caught short from time to time. If this occurs contact Christine Karasiuk at 613-345-5685 and we will see what we can do to help.

■ Kindergarten School Entry

As part of our review of children entering kindergarten, we will be assessing immunization records for the presence of at least one measles, mumps and rubella (MMR) immunizations. The Immunization of School Pupils Act states that the first MMR dose needs to be given after the first birthday with a second dose following more than one month later.

We will also be assessing whether the child had their primary series and 18 month booster for diphtheria, tetanus, polio, pertussis and Haemophilus influenza b (Pediace).l).

FOOD SECURITY

Food security exists when people "can get enough food to eat that is safe, that they like to eat, and that helps them to be healthy. They must be able to get this food in ways that make them feel good about themselves and their families." (Ontario Public Health Association).

- About 5,000 families in Leeds, Grenville and Lanark (8% of the households) report food insecurity.
- About half the food insecure households are working but do not receive enough income to cover the cost of food for a month.
- About 40 - 50% of attendees at Food Banks are families with children.

Children living in poverty without healthy food have lower cognitive, psychosocial and academic development. Among adults, risk increases for chronic conditions associated with poor diet (lack of fruit and vegetables, lack of good protein, unhealthy fats). Diabetes prevalence is four times higher among adults in the lowest income group compared to the highest income group (www.phac-aspc.gc.ca/publicat/2009/cvd-avc/pdf/cvd-avs-2009-eng.pdf). The stigma associated with needing to use a food bank makes people feel ashamed and leads to isolation.

The Health Unit coordinated a campaign in November to raise awareness about food security in our region called "Do the Math/ Eat the Math". About 20 people lived off food from Food Banks for one week. The report from their experience is on the Health Unit website. It had a profound physical and mental effect on everyone. www.healthunit.org/nutrition/dothemath/dothemath.html#Resources

Helping with school food programs, community kitchens, contributing healthy food to food banks and advocating for adequate income for those on social assistance can improve food security in our community.



Environmental Health

Beaches

The Health Unit will be testing the 22 beaches in Leeds, Grenville and Lanark from late June to Labour Day following provincial guidelines. The results of the testing are posted on our website at www.healthunit.org/water/test/beaches.htm.

A new feature this year is that many of the approved beaches will be posting a sign that says: "Up to 24 hours after a heavy rainfall, these waters may be polluted with high levels of bacteria." This is important because the testing is only done once a week and a heavy rainfall can bring fecal contamination from fields or upstream to the beach.

We are also encouraging everyone to remember that while we strive to alert people when conditions are not suitable for swimming, the public must be aware that conditions may change, and that there is always a level of risk when swimming in natural lakes and rivers. They can be contaminated from fecal matter from birds, pets and wildlife, and from faulty or overworked septic systems, agricultural run-off and sewage treatment plant by-passes. Other protective measures include making sure you don't swallow the water and avoiding swimming when the water is cloudy, too warm or there are obvious signs of waterfowl or other feces.

Up to 24 hours After a Heavy Rainfall these waters may be polluted with high levels of bacteria

Leeds, Grenville & Lanark District
HEALTH UNIT
www.healthunit.org



Fluoridation

The Health Unit has prepared a fact sheet on water fluoridation in response to community concerns elsewhere in the province about the safety of adding fluoride to the drinking water. It includes links to Summary Statements on Water Fluoridation and to specific statements by the Chief Medical Officer of Health for Ontario, the Association of Local Public Health Agencies (aLPHA) and the Ontario Dental Association (ODA). The factsheet can be found at: http://www.healthunit.org/dental/decay_prevention/flouride.htm

The fluoridation of water is an important part of the overall strategy to improve the oral health of the population. Fluoride helps to strengthen the structure of the tooth and to repair damage to the enamel from acids in the mouth. Research studies support that the low level of fluoride in the water at 0.7mg/l is safe.

The major advantage of water fluoridation is that it benefits all members of the community. While some children use fluoridated tooth paste on a regular basis and visit a dentist every year for cleaning and other preventive care, many do not for financial or other reasons. Without fluoridated water, these children would be at a disadvantage. Having healthy teeth is critical for healthy nutrition and self-esteem as well as reducing dental caries, pain, tooth loss, and the risk of chronic disease.

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High Sodium in Drinking Water

The Ontario Drinking Water Systems Regulation 170/03 under the Safe Drinking Water Act requires reporting to the local Medical Officer of Health when sodium levels in public drinking water supplies exceed 20 mg/l or more. This is so the Medical Officer of Health can pass the information onto physicians who can then use it in their management of individuals who need a sodium restricted diet.

Most sodium comes from food. Drinking 1.5 L water with a sodium concentration of 5.6 mg/l

contributes about 0.3% of the average sodium intake of an adult.

However, we have had levels of 130 mg/l which would contribute a significant extra amount of sodium to an individual's daily intake. Many of the high results are coming from systems with a water softener which adds sodium to the water. Adding a reverse osmosis treatment system can remove most of the sodium in the water. It is worthwhile asking if someone has a water softener system that adds sodium to the water if sodium reduction is important.