



HALDIMAND-NORFOLK HEALTH UNIT

PHYSICIANS' NEWSLETTER

Preconception health

...when infertility is related to obesity

The term "overweight refers to a weight 10% above a range of body weight for height or a body mass index (BMI) between 25.0 and 29.9 Kg/m²; the term "obese" refers to a weight 20% above a target weight range or a BMI of 30 Kg/m² or more. The following definitions for BMI are set forth by the World Health Organization and the National Heart, Lung and Blood Institute:



Below 18.5	=	Underweight
18.5 - 24.9	=	Normal
25.0 - 29.9	=	Overweight
+ 30	=	Obese:
30 - 34.9.1	=	Class I
35 - 39.9	=	Class II
Over 40	=	Class III Morbidly Obese

There is a correlation between obesity and reduced fertility. Fat cells often produce hormone imbalances and insulin resistance that in turn can influence ability to conceive. Overweight women present with dysfunctional menstrual cycles and anovulation more frequently than women with a normal (BMI).^{3,4} Between 30-47% of obese women will have irregular menstrual cycles.² Obesity in men may also decrease their fertility by affecting hormonal changes; as well increased fat cells may increase scrotal temperature, which in turn affects sperm production.²

When both partners are overweight or obese they have a higher rate of "sub-fertility," which is defined as taking longer than 12 months to conceive when compared to a "normal" weight couple. A study from Denmark found that when both partners are overweight it took them 1.4 times longer to conceive and when both were obese it took them 2.7 times as long to conceive as compared to "normal" weight couples.³

Lifestyle modification including weight loss through physical activity and a healthy diet is considered to be the treatment of choice when infertility is due to obesity. A loss of 5 to 10% of total body weight has been shown to be effective in restoring ovulation.⁵ To aid in weight loss medication and gastric bypass, or gastric banding may also be recommended depending on patient circumstances. If the end goal was simply to achieve a pregnancy at all cost, medications to stimulate ovulation and assistive reproductive methods such as in vitro fertilization (IVF) are available. However, women with

a BMI greater than 30 are at increased risk for IVF failure. Some fertility clinics consider a critical BMI of 35 as a cut-off point and will not treat patients who have a BMI of 35 or above.⁵

There are risks associated with the pregnancy itself when the woman's BMI remains 30 or above. If pregnancy did occur, there would be a higher risk for failure due to poor implantation. There would be a higher risk for an ectopic pregnancy as well as a higher risk of miscarriage in later pregnancy.⁶ There are also maternal risks related to obesity during pregnancy including pregnancy induced hypertension, gestational diabetes, pre-eclampsia, the need for induction of labour; the need for caesarean section for fetal distress, post-partum hemorrhage, wound infection, throm-

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Immunization. It's not just for kids.

While universal immunization programs for children have had the biggest impact and have been proven to be cost effective, we are now in a state where the burden of many infectious diseases has shifted to the adult population. This leads not only to increased health care costs for preventable diseases that are often more severe in adults, but also secondary effects of illness in vulnerable populations such as children, pregnant women and the elderly.

For example, the proportion of cases of pertussis in the adult population has increased from 6% to more than 18% since 1988, and adults have been found to be the primary source of pertussis in two-thirds of infant cases. Although the Canadian National Committee on Immunization recommends that adults receive one dose of acellular pertussis vaccine, this dose is not publicly funded in Ontario. Adult patients inquiring about the vaccine can purchase the vaccine and some health benefit plans may provide reimbursement.

All adults in Canada should be immunized against tetanus, diphtheria, measles, mumps, rubella and varicella as a minimum. Varicella is not publicly funded in

Ontario. As well, influenza and pneumococcal immunization is recommended for many adults. Other immunizations for adults depends on factors such as travel, occupation, underlying illness, lifestyle and age.

Surveys have shown that almost 50% of adults in Canada do not have adequate coverage for diphtheria, despite most having seen a physician in the preceding year, and up to 10% of pregnant women and female daycare educators in Canada are susceptible to rubella.

Recent outbreaks of mumps in university students and staff in Nova Scotia and a large rubella outbreak affecting primarily unimmunized people in southwestern Ontario confirm these concerns. A Canadian review also showed that only 10 of 74 patients admitted to a tertiary care medical unit for invasive pneumococcal disease had been previously vaccinated, although all 74 met the recommendation for receiving this vaccine.

Most childhood immunization programs in Canada are publicly funded by provincial health care plans and delivered through a combination of public health programs and physicians offices. By contrast, most

adult immunization is not publicly funded and often depends on patients requesting vaccines from their health care provider, most often physicians.

Common barriers to adult immunization reported by physicians include urgent concerns dominating the visit, not having the patient's immunization history, patient concerns about vaccine safety and inadequate reimbursement.

Other studies have shown adult immunization rates can be increased by a variety of measures, including increasing people's awareness of recommended vaccines, providing reminders or recalls, establishing standing orders for hospitals and emergency departments and expanding access. Some of the more innovative ways to expand access are using alternative sites for vaccinations, such as elderly drop-in clinics and travel agencies, and providing information and immunization by allied health professionals. It is essential we seize all opportunities to reduce incidence of missed immunizations to protect the health of all Canadians.

Submitted by Rose Huyge, Public Health Nurse, Vaccine Preventable Disease Program, 519-426-6170 Ext. 3227.

PUBLICLY FUNDED VACCINE FOR ADULTS 19-65+ YEARS

VACCINE	AGE		
	19-49 YEARS	50-64 YEARS	65+ YEARS
Tetanus		Everyone, every 10 years.	
Diphtheria		Everyone, every 10 years.	
Pertussis		Everyone, every 10 years.*	
Measles	People who have not had the vaccine or the disease.*		
Mumps	People who have not had the vaccine or the disease.*		
Rubella	People who have not had the vaccine or the disease.*		
Meningococcal	People with specific medical conditions.*		
Pneumococcal	People with specific medical conditions.*		Everyone.
Influenza	Annually for everyone.		

*Please refer to the Publicly Funded Immunization Schedules for Ontario, February 2005 as some of these vaccines are not funded for adults.

References: Henry, B. (2007). Adult vaccination: missed opportunities or opportunity not to be missed? *Canadian Pharmacists Journal*, 140 (Suppl. 2), S16-S17.

Human Papilloma Virus (HPV)

Human papilloma virus (HPV) used to be known as venereal warts, genital warts or condyloma. It is one of the most common sexually transmitted infections and is believed to be carried by one in 10 people. Only one in 100 infected people have visible warts.

HPV is spread to sexual partners by skin contact, or to infants during childbirth. Symptoms may not appear until one to nine months after exposure to the virus. Some women never get symptoms, even though they carry the virus. Some warts cannot be seen or felt. Larger warts may be pink, white, brown or gray and occur alone or in groups. Warts may be painless, or itchy and uncomfortable. The warts can be on the vulva (vaginal lips), in the vagina, on the cervix (entrance to uterus) or around the rectum.

Some types of HPV are related to cancer of the cervix. In most cases, women with strong immune systems can fight off HPV, however, some women's defenses cannot, and they can develop cell changes on the cervix that may lead to cancer.

In women, HPV will usually show up on a Pap test as abnormal cell changes. Depending on the severity of the cell changes, a gynecologist may need to use a colposcope to see the cervix and upper vagina more clearly. Cell samples called biopsies may also be taken at this time.

The goals of treatment are to remove visible genital warts and reduce the amount of the virus which should help your body fight the infection. After the warts have cleared, there is still a chance that they can reoccur if your body does not have the virus under control.

There are many different treatments available and sometimes several different treatments may be used for the same person.

1. It usually takes up to 10 years for abnormal cells to turn into cancer.
2. Avoid tobacco smoke. Smoking and second hand smoke can cause mild cell changes on your cervix to progress to cancer.
3. When HPV is detected in one partner, the other partner should also be examined.
4. Practicing safer sex lowers your risk of getting any sexually transmitted infection, so use condoms to reduce your risk.

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HPV vaccine

It is a vaccine for girls and women 9 to 26 years of age that protects against two HPV types that cause most cases (70%) of cancer of the cervix (types 16 and 18), and two HPV types that cause the most cases of skin and genital warts (types 6 and 11). Women will need to have 3 needles in 6 months.

Since 2007, HPV vaccine has been publicly funded for grade 8 girls only in Ontario.



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boembolism, anesthesia complications, postpartum endometritis and prolonged hospital stay.^{1,6} As well, there are risks to the baby such as increased risk of fetal macrosomia, neural tube defects, late fetal death, birth asphyxia, birth trauma and neonatal hypoglycaemia.¹

Until an optimal BMI is achieved the use of the following contraceptive methods may be recommended. Each of the methods has associated risks and consideration must be made on a case by case basis.

1. Hormonal contraception is associated with additional increased risk of thromboembolism related to obesity.
2. The progesterone only pill is associated with decreased efficacy related to obesity.
3. Depot preparations are associated with potential delay in return to ovulation once desired BMI is reached.
4. Intrauterine devices are associated with increased risk of pelvic inflammatory disease.
5. Barrier methods are the contracep-

tives of choice during this critical time period.⁵

The affect of obesity on one's ability to conceive is not straightforward, there are many factors to consider. The motivation and desire to have a healthy baby can be the opening required for the discussion about lifestyle changes required to bring about weight loss to achieve the desired BMI. Couples need counselling to inform them of the risks of a pregnancy without weight loss. "The combination of weight loss, contraception and high-dose folic acid should become the standard of pre-conceptual care for the obese woman."⁵

References

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Preventing Febrile Respiratory Illnesses

The Ministry of Health and Long-Term care, via the Provincial Diseases Advisory Committee, has made minor changes to the document entitled Preventing Febrile Respiratory Illnesses: Protecting Patients and Staff. This document is a summary of the best practices in surveillance and infection prevention/control for febrile respiratory illness (FRI) transmitted by droplet mechanisms, and is intended to apply to all Ontario health care settings, especially acute and long-term care facilities and primary care/community health services. The document outlines the rationale and mechanisms for initial screening and assessment of patients with fever and new/worsening cough and/or shortness of breath, and recommends a series of infection prevention and control measures that should be instituted in these situations. The FRI document was developed provincially following the 2003 SARS outbreak.

It is recognized that implementation of the best practice recommendations will require time, understanding, resources and structural modifications in/re-design of many of the facilities and sites where health-care services are provided (e.g., the ability to assure adequate separation of FRI patients in waiting rooms or the provision of adequate numbers of examining rooms where such patients can be isolated after triage.) Nevertheless,

the Haldimand-Norfolk Health Unit urges all physicians to obtain copies of the document and become familiar with the expectations and practices that it recommends. Copies of the document can be downloaded from the PIDAC home page of the Ministry of Health's website at <http://www.health.gov.on.ca/> or can be electronically provided (or hard copy, as a last resort) to your practice at your request. Please contact the Communicable Disease Team by calling 519-426-6170 Ext.3232.

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