

# Reproductive Health Lesson 1 – Grade 11 75 minutes in length

# **Overall Expectations:**

C. 2. Demonstrate the ability to apply health knowledge and living skills to make reasoned decisions and take appropriate actions relating to their personal health and well-being.

# **Specific Expectations:**

C. 2.3. Describe how their understanding of factors that affect reproductive and sexual health (e.g., environmental factors, genetics, injuries, disabilities, hormonal levels, nutrition, substance use, sexually transmitted infections) and their knowledge of proactive health measures and supports (e.g., measures such as breast and testicular examinations, Pap tests, regular medical check-ups, stress management techniques, genetic testing; supports such as trusted adults, local clinics, a local public health unit, a nurse practitioner/doctor) can be applied to avoid or minimize illness.

### **Learner Outcome:**

Identify factors that affect reproductive and sexual health.

### **Materials:**

1. PowerPoint: Reproductive Health Lesson 1

2. Handout: Reproductive Health Quiz

3. Answer Key: Reproductive Health Quiz

4. Handout: My Life, My Plan resource, available at:

Link to My Life Plan resource



# **Approaches/Strategies:**

### A. Ground Rules (5 min)

Ensure ground rules are established before beginning this lesson. For classes that have already established ground rules, quickly reviewing them can promote a successful lesson. Some suggestion for ground rules include:

- We have personal boundaries that must be respected
- We have the right to "pass"
- We have a right to our own beliefs and opinions
- We are responsible for our own learning
- Our questions or comments will be respected and taken seriously

### B. PowerPoint Presentation: Reproductive Health Lesson 1. (20 min)

#### Slide 2: Introduction. Discuss the following:

- The male and female reproductive systems are composed of internal and external sexual organs.
- These organs are controlled by sex hormones (testosterone in males, and estrogen and progesterone infemales).
- The pituitary gland (located in the brain) controls the release of the sex hormones.
   These hormones cause the physical and emotional changes that happen to your body during puberty.

#### Slide 3: Female Reproductive System: (5 min)

Show the diagrams of the female reproductive system and discuss: 1

- The internal and external sexual organs are: ovaries, cervix, uterus, fallopian tubes, and vagina.
- Women are born with their eggs (ova) and the number of available eggs is fixed at birth.
- The egg is released by the ovary approximately 14 days before the next menstrual period.
- The egg then makes its way to the fallopian tube and is available for fertilization for the next 12- 24 hours.
- As the egg is released, the uterine wall thickens with extra blood and tissue to become a cushion for a potentially fertilized egg.



- If the egg becomes fertilized, it attaches to the lining of the uterus where it will remain and slowly develop into a fetus.
- If fertilization does not occur, the uterine lining and unfertilized egg are shed by the female body.
- Menstruation is when the female body rids the extra blood and tissue from the
  uterine lining as well as the unfertilized egg. This cycle continues approximately
  every 28 days throughout the female reproductive years.

#### Slide 4: Male Reproductive System: (5 min)

Show the diagram of the male reproductive system and explain the following

- The internal and external sexual organs are: penis, scrotum, epididymis, vas deferens, prostate, testes, and seminal vesicle.
- Sperm production in males is a continuous process taking about 72 days. The
  testes contain a coiled tube about 100 meters long, and the cells within the coiled
  tube divide and mature to produce a continuous supply of sperm

#### Slide 5: How Conception Occurs: (5 min)

Show the diagram of how conception occurs and explain the following

- During intercourse seminal fluid (containing sperm) enters the vagina and makes its way to the cervix (opening of the uterus).
- Sperm enter the cervical mucus, which acts as a nourishing reservoir, enabling the sperm to survive for up to 5 days.
- Sperm may reach the fallopian tube within 5 minutes of intercourse.
- In the fallopian tube the sperm undergo chemical changes prior to fertilization.
- Hundreds of sperm work together to penetrate the egg membrane.
- Once a single sperm penetrates the egg membrane, other sperm are prevented from passing through the membrane to the egg.
- The fertilized egg (zygote) stays in the fallopian tube for approximately <sup>4</sup> days and then is moved to the uterus and begins the process of implantation.

#### Slide 6: What factors can influence reproductive health? (5 min)

Have students brainstorm ideas for factors that could influence their reproductive health. Show list to students after brainstorming is finished.



### C. Reproductive Health Quiz (15 min)

Distribute the Reproductive Health Quiz to students. Allow time for answering the quiz by marking true or false for all questions.

## D. Quiz Discussion (40 min)

Facilitate a class discussion on why each answer is true or false, utilizing the Teacher Reference for Reproductive Health Quiz.

### E. Wrap up (5 min)

Display the final slide of the PowerPoint presentation (Life Plans) and facilitate a short discussion on healthy lifestyle choices.

Provide students with hard copies of 'My Life, My Plan.' Encourage students to use the booklet to help them think about their goals and ultimately, their own life plan. A life plan can help students make healthy decisions for today that will affect their future. This resource will help students make healthy decisions around topics such as physical activity, healthy eating, relationships, sex and other areas of their life. The students can use the plan as a working document and update the booklet as things in their life change. The booklet and the information within it may help the students to stay true to themselves and to take the best care possible of their health.

### Question Box (10 min)

Have students fill out anonymous questions and address them next class.

#### Self-Reflection

During the lesson, were:

- Ground rules being followed?
  - Good practices established regarding group work and discussion?

What will you change for future classes with this group? What will you change for future use of this lesson?

#### **Student Assessment**

During the lesson, did students:

#### Knowledge:

- Demonstrate understanding of concepts covered in the discussions?
- Participate in discussion during the reproductive health quiz?



#### **Skills:**

- Describe how lifestyle choices improve or decrease reproductive health?
- Develop strategies to maintain or improve their reproductive health?



# **Reproductive Health Quiz**

Please circle the correct answer.

Answer: T (True) or F (False)

1. The choices that men make about their health can affect their ability to produce healthy sperm.

T F

2. It is important to keep your immunizations up to date.

T F

3. A women's body weight can affect her fertility.

T F

4. A woman's body weight does not affect the health of a fetus during pregnancy.

T F

5. Women should not exercise while pregnant.

T F

6. Folate (folic acid) is an important part of every woman's diet.

T F

7. Women should limit their caffeine consumption if they are pregnant or planning a pregnancy.

T F

8. If a pregnant woman eats fish with high levels of mercury, it could harm the baby's nervous system.

T F

9. All medications are safe to take during pregnancy.

T F

10. Using street drugs can have a negative impact on reproductive health and the health of a fetus.

T F

11. If alcohol is consumed during pregnancy, the infant could be born with permanent brain damage.



Т		

12. Smoking tobacco reduces fertility in men and women.

T F

13. Using tobacco or being exposed to second hand smoke during pregnancy can harm the fetus.

T F

14. The future health of children can be affected by exposure to tobacco products during pregnancy.

T F

15. Sexually transmitted infections (STIs) can cause infertility in men and women.

T F

16. STIs can affect the fetus during pregnancy and birth.

T F

17. Reproductive health is not affected by exposure to toxic substances in the environment.

T F

18. During pregnancy, exposure to toxic substances can affect the development of the fetus.

T F

19. Exclusive breastfeeding is the best way to feed a baby for the first 6 months.

T F

20. Stress can impact fertility.

T F

21. A mother with recent tooth decay can transmit the cavity causing bacteria to her child.

T F

22. About 50% of pregnancies are unplanned.

T F



# **Teacher's Reference for Reproductive Health Quiz**

1. The choices that men make about their health can affect their ability to produce healthy sperm: True.

Although most men will continue to produce sperm capable of creating a pregnancy, the quality of sperm produced may be affected by a number of factors, including

- Alcohol use
- Tobacco use
- Drug use
- Exposure to toxic substances in the environment
- Poor nutrition
- Stress
- STIs.

Any of the above factors can increase the risk for having

- Abnormal sperm production
- Decreased sperm production
- Decreased sex drive
- Increased likelihood of birth defects in a future child.
- 2. It is important to keep your immunizations up to date: True.
- Once all of your childhood immunizations are completed, it is still suggested that you continue keeping your immunization record up to date.
- This will help protect yourself and stop the spread of disease to those who are vulnerable (including pregnant women and children).
- Certain vaccine preventable diseases can cause severe damage to a fetus if the mother comes in contact with the disease and is not vaccinated against the disease. These include:
  - Measles<sup>3</sup>
  - o Mumps<sup>4</sup>
  - o Rubella (German Measles)<sup>5</sup>
  - o Hepatitis B<sup>6</sup>
  - o Varicella (chickenpox)7
- If a pregnant female becomes infected with a vaccine preventable disease and



she is not vaccinated, the possible risks to the fetus are:

- o Premature birth
- o Miscarriage
- Low birth weight
- o Stillbirth
- Fetal anomalies (including congenital heart disease, cataracts, deafness, and mental disabilities, etc.).

#### 3. A woman's body weight can affect her fertility: TRUE.

- A healthy body weight (neither underweight nor overweight or obese) decreases a women's chance of developing health problems and increases her chances of becoming pregnant.
- Following *Eating well with Canada's Food Guide* and being physically active every day are keys to maintaining a healthy body weight.

#### **Underweight:**

Women who have very low body fat may experience difficulty becoming pregnant due to the suppression of ovulation.

#### Overweight:

Prenatal overweight and obesity (being overweight/obese prior to conception or gaining excessive weight during pregnancy) poses significant health risks to both the mother and baby during pregnancy and beyond.<sup>10</sup>

Overweight and obesity can lead to a range of reproductive health concerns including difficulty in conceiving, poor health during pregnancy, and poor perinatal and postpartum outcomes 10

Women who are obese have more difficulty conceiving, including reduced fertility and less successful assisted reproduction. As Body Mass Index (BMI) increases, pregnancy rates decrease. Women with a BMI > 30 have up to a 68% decreased chance of having a live birth following their first assisted reproduction technology cycle compared with women with BMI < 30.

# 4. A woman's body weight does not affect the health of a fetus during pregnancy: FALSE.

#### Overweight:

Prenatal overweight or obesity increases the maternal risk of

- gestational diabetes
- preeclampsia
- · excessive gestational weight gain
- labour complications
- excess postpartum weight retention



- · high blood pressure
- C-sections

Maternal obesity also increases the risk of:

- fetal overgrowth [i.e. large for gestational age (LGA)]
- fetal distress
- child obesity
- LGA infants weigh greater than 4000 grams (8 lb. 13 oz.) which places them at risk for birth complications including shoulder dystocia, brachial plexus injury and Erb's palsy. For some babies, these complications can result in permanent disability of varying severity.
- Mothers giving birth to LGA babies are also at higher risk for postpartum hemorrhage.

#### **Underweight:**

- Women who have poor nutrition and are underweight prior to getting pregnant and have poor weight gain in pregnancy are at greater risk of having a preterm birth which could result in a low birth weight (LBW) infant.
- LBW infants weigh less than 2500 grams (5 lb. 8 oz.). Birth weight is considered
  one of the most important indicators of a newborn's chance of survival, with low
  birth weight being a major risk factor for perinatal and infant mortality.
- A LBW infant is at greater risk of having health and developmental problems including:
  - o learning difficulties
  - o hearing and visual impairments
  - o chronic respiratory problems such as asthma
  - o chronic diseases later in life

#### 5. Women should not exercise while pregnant: FALSE.

- Regular physical activity is beneficial for both the pregnant woman and her developing fetus.
- Women who follow Canada's physical activity recommendations before pregnancy will have an easier time maintaining regular physical activity during pregnancy.
- It is possible for women who lived a sedentary lifestyle before pregnancy to build physical activity into their daily routine by starting slowly and gradually increasing the amount and intensity of activity.
- 6. Folate (folic acid) is an important part of every woman's diet: TRUE.
- The Public Health Agency of Canada recommends that all women who could become pregnant take a multivitamin containing 0.4 mg of folic acid every day.
- Some women may require more folic acid if they are overweight or have a history



of neural tube defects. Always check with a healthcare professional.

- It is suggested that a multivitamin containing folic acid be taken for at least three months prior to getting pregnant and be continued throughout pregnancy and while breastfeeding.
- Folate is a B vitamin. It has two forms: the naturally occurring form found in food called folate, and the synthetic form known as folic acid.
- Folate/folic acid is essential to the normal development of the spine, brain and skull
  of the fetus, especially during the first four weeks of pregnancy.
- Folate/folic acid reduces the risk of a fetus developing neural tube defects which can result in:
  - Spina bifida
  - Anencephaly (a serious birth defect in which a baby is born without parts of the brain and skull)
  - Serious disability, including paralysis or even death
- It is important to consume foods rich in folate such as: dark green vegetables (e.g. spinach, romaine lettuce, broccoli, brussel sprouts, green peas, asparagus) beets, parsnips, avocados, orange juice, berries, beans, chick peas, sunflower seeds, and bread and pasta made from enriched flour
- 7. Women should limit their caffeine consumption if they are pregnant or planning a pregnancy: TRUE.
- Pregnant women should limit their caffeine consumption in order to reduce the harmful effects caffeine can have on the fetus.
- The recommended maximum caffeine intake level for women of childbearing age is 300 mg per day

• The following is a listing of the approximate amount of caffeine contained in commonly consumed products.

Product	Amount of Caffeine
Coffee – one 8 oz (237 ml) cup bag tea one 8 oz (237 ml) cup one 12 oz (355 ml) can	approximately 135 mg Tea – leaf or approximately 50 mg Regular Cola – between 36-46 mg
Milk Chocolate candy bar – 1 oz (28 gram)	approximately 7 mg portion
Dark Chocolate candy bar – 1 oz (28 gram)	approximately 19 mg portion
Energy drinks	The level of caffeine in energy drinks is different in each product, but can range anywhere from 50 mg per can to above 200 mg per can

8. If a pregnant woman eats fish with high levels of mercury, it could harm the baby's nervous system: TRUE.



- It is advisable to be aware of the mercury content in the fish you consume so that you are not exposing yourself to high levels of mercury during the childbearing years.
- Mercury is a toxic substance that passes through the placenta from mother to fetus, where it can cause irreversible neurological damage.
- Eat Right Ontario recommends at least 2 servings of fish per week. Fish is a rich source of protein and omega-3 fatty acids that are essential for the development of vision, the brain, and nerves of a fetus.
- There are fish that contain low levels of mercury and can be eaten on a daily basis.
   Examples of these include:
  - o Pollock
  - o Salmon (Chum, Coho, Pink, Canned, Wild Pacific)
  - o Tilapia
- Some sport fish found in local lakes and rivers contain high levels of mercury and should be avoided. It is best to refer to the current Ministry of the Environment's *Guide to Eating Ontario Sport Fish* for sport fish consumption advice.
- 9. All medications are safe to take during pregnancy: FALSE.
- There are two types of medications:
  - Over-the-counter (OTC) medications: non-prescribed medications, vitamins, and herbal supplements
  - Prescribed medications: medications that your health care provider orders for you (a prescription is required).
- Medications that are safe for a woman may not be safe for a developing fetus.
- If a woman is taking medications (either OTC or prescribed) and she is or could be pregnant, she should speak to her health care provider or pharmacist immediately about her medications.
- Please refer to question number 10 for information on street drugs.

# 10. Using street drugs can have a negative impact on reproductive health and the health of a fetus: TRUE.

- Many drugs cause long term damage to both sperm and eggs which impacts on fertility
- Even if the woman or man stop taking drugs before they conceive, the drugs can still be in their system and can have an effect on the health of the fetus.
- In a pregnant woman, drugs have the ability to increase the risk of:
  - Miscarriage
  - Fetal death
  - o Premature birth
  - Birth complications and defects



- o Low birth weight infant
- Neurological and developmental disabilities
- o Respiratory problems

# 11. If alcohol is consumed during pregnancy, the infant could be born with permanent brain damage: TRUE.

- There is **NO** safe amount and **NO** safe time during pregnancy to drink alcohol. Alcohol can cause harm to a baby even before a woman knows she is pregnant.
- Abstaining from consuming alcohol is the only way to ensure that an infant's development is not affected by alcohol. Alcohol should not be consumed if an effective method of birth control is not being used.
- Alcohol is the most preventable cause of mental disabilities in children and can cause many permanent, life-long disabilities in children.
- Alcohol includes wine, coolers, beer and hard liquor.
- Alcohol can also be found in some products and foods.
- Alcohol can affect a fetus by causing:
  - o Prenatal growth restriction
  - o Stillbirth
  - Miscarriages.
- Alcohol can affect an infant by causing:
  - Fetal alcohol spectrum disorder (FASD), which is characterized by mental disabilities, delayed motor development, low birth weight, and facial abnormalities
  - o Brain damage
  - Vision and hearing difficulties
  - Bones, limbs and fingers that are not properly formed
  - Heart, kidney, liver and other organ damage
  - Slow growth
- Brain damage means that a child may have serious difficulties with:
  - Learning
  - Remembering
  - Thinking things through
  - Getting along with others

### 12. Smoking tobacco reduces fertility in men and women: TRUE.

- Smoking tobacco has been linked to reduced fertility in women and men.
- Exposure to second hand smoke can have the same effect as smoking cigarettes.

#### Women:



- The chemicals in tobacco smoke are hazardous to the female reproductive system and can impact a woman's fertility.
- Studies have shown that women who smoke more than 20 cigarettes per day have their fertility reduced by 22% when compared to women who do not smoke.

#### Men:

- Smoking tobacco increases the risk of:
  - o Erectile dysfunction
  - Poor sperm motility
  - o Poor sperm counts
  - Abnormal sperm shape
  - o Difficulty fertilizing the egg.

# 13. Using tobacco or being exposed to second hand smoke during pregnancy can harm the fetus: TRUE.

- Smoking tobacco or exposure to second hand smoke during pregnancy has been linked to:
  - o A higher chance of miscarriage
  - Labour and birth complications
  - o Premature birth
  - Low birth weight infant
- Quitting smoking does not cause stress for a fetus. Quitting at any time during pregnancy will reduce the negative impacts on the fetus.
- Not only is exposure to tobacco smoke a concern, it has been shown that smokeless tobacco (chew/dip, snuff, snus, spit, etc.) use is associated with:
  - o Reduced birth weight
  - Reduced gestational age.

# 14. The future health of children can be affected by exposure to tobacco products during pregnancy: TRUE.

- There is evidence that children who have been exposed to tobacco smoke during pregnancy have increased chances of:
  - Low birth weight
  - o Stillbirth
  - SIDS (Sudden Infant Death Syndrome)
  - o Having respiratory infections (bronchitis, asthma, pneumonia, etc.)
  - Having ear infections
  - Developing allergies
  - o Being cranky or colicky as infants
  - Difficulties with reading and math skills



# 15. Sexually transmitted infections (STIs) can cause infertility in men and women: TRUE.

- Some STIs can cause infertility in women and men.
- STIs are infections passed from one person to another through:
  - Sexual contact (anal, vaginal, or oral sex)
  - o Contact with body fluids (blood, urine, feces, saliva, etc.)
  - Sharing of drug related equipment (syringes, needles, etc.).
- Many STIs do not show signs and symptoms, and therefore people are not aware of having or sharing them.
- Chlamydia is currently the most commonly reported STI among youth in Durham Region. Syphilis is increasing in prevalence among men.
- It is important for all women and men to have regular physical exams and request that their health care provider test them and their partner(s) for STIs (especially when entering a new relationship).
- Being abstinent, and avoiding any intimate skin to skin contact and bodily fluids can reduce the chance of transmitting or becoming infected with an STI.
- Individuals need to protect themselves from becoming infected with an STI.

#### Women:

- Some untreated STIs, like chlamydia and gonorrhea, may damage a woman's fallopian tubes, which can make it difficult for a woman to get pregnant.
- About 70% of cases of cervical cancer are caused by a sexually transmitted infection called HPV. Cervical cancer can result in infertility.

#### Men:

• In men, long-term chlamydia and gonorrhea infections can cause infertility.

### 16. STIs can affect the fetus during pregnancy and birth: TRUE.

- If a woman is pregnant and has an STI, she can pass the infection to her baby during pregnancy, and during childbirth. HIV/AIDS can also be passed to an infant while breastfeeding
- STIs that are passed to the fetus or infant can result in serious consequences, including:
  - o Fetal death
  - Brain damage
  - Birth defects
  - Low birth weight
  - o Prematurity
  - Eye infections
  - Skin lesions



- o Pneumonia
- Hearing problems

# 17. Reproductive health is not affected by exposure to toxic substances in the environment: FALSE.

- Exposure to toxic substances can interfere with the female and male reproductive systems.
- Reproductive disorders in men and women can result from:
  - o Their parent's exposure to toxic substances prior to conception
  - Exposure to toxic substances as a fetus (prenatally), during childhood, during adolescence, and/or during adulthood.
- Exposure to toxic substances can happen indoors and outdoors through air, dust, soil, food, water and consumer products. Some examples of toxic substances are:
  - Mercury
  - o Lead
  - o Industrial chemicals
  - Pesticides
  - o Radiation
  - Air pollution
  - Asbestos
  - o Mould
  - o Arsenic
  - Chemicals found in some plastics.

#### Women:

- Exposure to toxic substances can:
  - Affect the formation of the ovaries and eggs in a developing female fetus
  - Affect the onset of puberty
  - Affect the onset and cause irregularities in menstrual cycles
  - Decrease fertility.

#### Men:

- Exposure to toxic substances can:
  - Affect sperm count and shape
  - Decrease fertility
- Take steps to minimize exposure to harmful substances (gloves, mask, and protective equipment) and avoid exposure if possible.

# 18. During pregnancy, exposure to toxic substances can affect the development of the fetus: TRUE.

• The time of greatest impact of exposure to toxic substances in the environment is



#### during fetal development.

- When a pregnant woman is exposed to toxic substances in her environment, these toxic substances can cross the placenta and affect the development of a fetus.
- To limit fetal exposure to toxic substances, pregnant women should:
  - Avoid doing renovations and being exposed to the dust from renovations (Exposure to toxic substances such as dust oil paints, solvents, varnishes, glues, degreasers and paint strippers, can occur during home renovations)
  - Avoid eating fish high in mercury
  - Wash all fruits and vegetables under running water before eating, cutting or cooking.
  - Choose cleaning products and pest control methods that are non-toxic
  - Avoid x-rays and replacement of mercury fillings when possible.
- Fetal exposure to the toxic substances in the environment can result in:
  - o Miscarriage
  - o Stillbirth
  - Preterm birth
  - o Low birth weight
  - Birth defects
  - Chromosomal abnormalities
  - o Cerebral palsy
  - Visual and hearing problems
  - o Asthma
  - Biological dysfunctions
  - Impaired brain functioning
  - Learning difficulties
  - o Behavioural and/or psychological problems
  - Childhood or later cancers.
- It is important to note that some fetal effects of exposures to toxic substances in the environment may not be noticed or diagnosed until later in life.

# 19. Exclusive breastfeeding is the best way to feed a baby for the first 6 months: TRUE.

- Breast milk provides the best nutrition for infants for the first 6 months at which time the introduction of solid foods begins. Breastfeeding continues to provide excellent nutrition for an infant up to 2 years and beyond.
- Breastfeeding is the healthiest way to feed an infant, not only for the infant's health, but also the mother's health and the health of the family.
- Risks of not breastfeeding include:
  - o Loss of protection from illnesses and diseases (i.e. ear infections, lung



- infections, chronic diseases, allergies, asthma, heart disease, obesity, childhood cancers, diabetes) for the infant
- Loss of protection from various cancers and osteoporosis for the mother
- Increased risk of illness and injury of the infant due to human error throughout the formula production process (missing ingredients and/or contaminated with germs)
- Increased risk of over or under nutrition for the developing infant due to improper preparation of formula
- Increased negative impact on the environment due to the manufacturing, distribution, and disposal of artificial feeding products (formula, cans, bottles, nipples, etc.).

### Breastfeeding is best for infants because it: 37

Is human milk for human infants

Helps to prevent constipation

Helps to protect against childhood diabetes and childhood obesity

Helps to protect against ear, chest and bladder infections

Helps to protect against allergies and asthma

Helps to protect against Sudden Infant Death Syndrome (SIDS)

Helps to prevent tooth decay

Promotes healthy brain development

#### Breastfeeding is best for mothers because it:37

Promotes closeness and bonding of mother and infant

Helps to control bleeding after birth

Helps the uterus to return to its normal size after birth

Helps to protect against breast cancer and ovarian cancer

Helps to keep bones strong

Helps with weight loss after birth

# Breastfeeding is best for families because it: 37

Saves time – breast milk is always fresh and ready

Saves money

It is the environmentally-friendly choice as it does not produce any garbage

# 20. Stress can impact fertility: TRUE.

 Stress is a natural response of our bodies to any demands or challenges put upon the body throughout our lives.



- Stress may be experienced as positive or negative and will be interpreted and responded to differently by each individual person.
- In women, stress impacts fertility by changing when the eggs are released and may alter the normal pattern of menstruation.
- In men, stress impacts fertility by creating hormonal changes that may alter sperm production.

# 21. A mother with recent tooth decay can transmit the cavity causing bacteria to her child: TRUE.

- Oral health is an important part of overall health.
- Pregnant women with periodontal disease have a higher risk of delivering a preterm or low birth weight baby.

#### 22. About 50% of pregnancies are unplanned: TRUE.

- An unplanned pregnancy is associated with increased risk of problems for mother and baby. It will affect your future and may get in the way of your goals.
- Make a plan. Consider your life and what you hope to achieve. A life plan can help you be your healthiest now and in the future.<sup>38</sup>
- If you are sexually active, talk to your health care provider about birth control options and how your health may impact a pregnancy.



### References

- 1. Best Start. (2012). *Men's Information: How to build a healthy baby".* Available at <a href="https://www.beststart.org/resources/preconception">www.beststart.org/resources/preconception</a>
- 2. Durham Region Health Department (DRHD). (2014). *Immunization: Maintaining an immunization record is important*.
- 3. DRHD. (2015). Facts About... Measles. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/IllnessInfectionDisease/FactsAbout/Measles.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/IllnessInfectionDisease/FactsAbout/Measles.pdf</a>
- 4. DRHD. (2015). Facts About... Mumps. https://www.durham.ca/en/health-and-wellness/resources/Documents/IllnessInfectionDisease/FactsAbout/Mumps.pdf
- 5. DRHD. (2014). Facts About... Rubella (German Measles). <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/PublicHealthInspectionsandInvestigations/RubellaFA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/PublicHealthInspectionsandInvestigations/RubellaFA.pdf</a>
- 6. DRHD. (2014). *Facts About… Hepatitis B*. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/HepB\_FA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/HepB\_FA.pdf</a>
- 7. DRHD. (2014). Facts About... Chickenpox. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/ChickenpoxFA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/ChickenpoxFA.pdf</a>
- 8. DRHD. (2014). *Health Before Pregnancy Makes a Difference*. <a href="https://www.durham.ca/en/health-and-wellness/planning-for-pregnancy.aspx">https://www.durham.ca/en/health-and-wellness/planning-for-pregnancy.aspx</a>
- 9. Best Start. (2001). *Preconception and Health Research and Strategies*. <a href="https://www.beststart.org/resources/preconception/precon\_health\_survey.pdf">https://www.beststart.org/resources/preconception/precon\_health\_survey.pdf</a>
- 10. Best Start. (2014). Obesity in Preconception and Pregnancy.

  <a href="https://www.beststart.org/resources/preconception/BSRC\_obesity\_report\_April2014\_npdf">https://www.beststart.org/resources/preconception/BSRC\_obesity\_report\_April2014\_npdf</a>
- 11. Hans, Z., Mulla, S., Beyene, J., Liao, G., McDonald, S.D. (2011). Maternal underweight and the risk of preterm birth and low birth weight: a systematic review and meta-analyses. Int J Epidemiol: 40(1), 65-101.
- 12. Ontario Ministry of Health and Long Term Care. (2012). *Initial Report on Public Health: Low Birth Weight*.
- 13. Toronto Public Health. (2013). Toronto's Health Status Indicator Series: Large for Gestational Age. <a href="https://www.toronto.ca/wp-content/uploads/2017/12/8cd2-tph-hsi-large-for-gestational-age-2017sep26.pdf">https://www.toronto.ca/wp-content/uploads/2017/12/8cd2-tph-hsi-large-for-gestational-age-2017sep26.pdf</a>
- 14. Best Start. (2011). *Health Before Pregnancy Workbook*. <a href="https://www.beststart.org/resources/rep\_health/Health\_Before\_pregnancy\_2011\_F">https://www.beststart.org/resources/rep\_health/Health\_Before\_pregnancy\_2011\_F</a> ULL.pdf
- 15. Public Health Agency of Canada. (2008). Why all women who could become pregnant should be taking Folic Acid. Available at: <a href="http://www.phac-aspc.gc.ca/fa-af/index-eng.phpshould-be-taking-folic Acid">http://www.phac-aspc.gc.ca/fa-af/index-eng.phpshould-be-taking-folic Acid</a>



- 16. DRHD. (2014). Health before pregnancy makes a difference: Caffeine. <a href="https://www.durham.ca/en/health-and-wellness/pregnancy.aspx">https://www.durham.ca/en/health-and-wellness/pregnancy.aspx</a>
- 17. Health Canada. (2012). *Caffeine in food*. Available at: <a href="http://www.hc-sc.gc.ca/fn-an/securit/addit/caf/food-caf-aliments-eng.php">http://www.hc-sc.gc.ca/fn-an/securit/addit/caf/food-caf-aliments-eng.php</a>
- 18. EatRight Ontario. (2014). Get the reel scoop on fish and mercury. http://uat.eatrightontario.ca/en/ViewPDF.aspx?docid=15723&respgid=4168&lang=en&datemod=2013-10-29%2011:36:20%20AM
- 19. Health Canada. (2008). *Mercury in fish*. <a href="http://www.hc-sc.gc.ca/fn-an/securit/chem-chim/environ/mercur/cons-adv-etud-eng.php">http://www.hc-sc.gc.ca/fn-an/securit/chem-chim/environ/mercur/cons-adv-etud-eng.php</a>
- 20. Ontario. (2013). *Guide to eating Ontario sport fish 2013-2014*. <a href="https://dr6j45jk9xcmk.cloudfront.net/documents/834/guide-eating-ontario-sport-fishen.pdf">https://dr6j45jk9xcmk.cloudfront.net/documents/834/guide-eating-ontario-sport-fishen.pdf</a>
- 21. Canadian Centre on Substance Abuse. (2013). Licit and Illicit Drug Use During Pregnancy: Maternal, Neonatal and Early Childhood Consequences. CCSA-Drug-Use-during-Pregnancy-Report-2013
- 22. Best Start. (2009). Be safe: Have an alcohol-free pregnancy. https://www.beststart.org/resources/alc\_reduction/pdf/bs\_brochure\_lr.pdf
- 23. Centre for Disease Control and Prevention (CDC). (2014). 2014 Surgeon General's Report: The Health Consequences of Smoking—50 Years of Progress. <a href="http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf">http://www.surgeongeneral.gov/library/reports/50-years-of-progress/full-report.pdf</a>
- 24. CDC. (2004). 2004 Report of the Surgeon General: Smoking Among Adults in the United States.

  www.cdc.gov/tobacco/data\_statistics/sgr/2004/highlights/reproductive/index.htm
- 25. Prakash, C.G., Sreevidya, S. (2004). Smokeless tobacco use, birth weight, and gestational age: population based, prospective cohort study of 1217 women in Mumbai, India. BMJ, 340:c2191. Available at: <a href="http://www.bmj.com/content/340/bmj.c2191">http://www.bmj.com/content/340/bmj.c2191</a> weight and gestational age
- 26. Health Canada. (2007). *Pre- and Postnatal Smoking Issues*. Available at: <a href="http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/body-corps/preg-gros-eng.php">http://www.hc-sc.gc.ca/hc-ps/tobac-tabac/body-corps/preg-gros-eng.php</a>
- 27. DRHD. (2014). Sexually Transmitted Infections/Diseases. https://www.durham.ca/en/health-and-wellness/sexually-transmitted-infections--stis-\_aspx
- 28. DRHD. (2015). Infectious Diseases at a Glance. <a href="https://www.durham.ca/en/health-and-and-wellness/resources/Documents/HealthInformationServices/HealthStatisticsReports/Infectious-Diseases-at-a-Glance.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/HealthInformationServices/HealthStatisticsReports/Infectious-Diseases-at-a-Glance.pdf</a>
- 29. Public Health Agency of Canada. (2008). *Canadian Guidelines on Sexually Transmitted Infections*. <a href="http://www.phac-aspc.gc.ca/std-mts/sti-its/index-eng.php">http://www.phac-aspc.gc.ca/std-mts/sti-its/index-eng.php</a>
- 30. DRHD. (2014). *Facts About... Chlamydia*. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/ChlamydiaFA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/ChlamydiaFA.pdf</a>



- 31. DRHD. (2014). Facts About... Gonorrhea. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/GonorrheaFA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/GonorrheaFA.pdf</a>
- 32. DRHD. (2014). Facts About... Human Papillomavirus (HPV). <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/ChildHealthandSchool-AgeChildren/HPVvaccineFA.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/ChildHealthandSchool-AgeChildren/HPVvaccineFA.pdf</a>
- 33. DRHD. (2013). Sexually Transmitted Infections in Pregnancy. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/STIsInPregnancy.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/Pregnancy/STIsInPregnancy.pdf</a>
- 34. Canadian Partnership for Children's Health and Environment. (2008). *Child Health and the Environment a Primer*. Available at:

  <a href="http://www.healthyenvironmentforkids.ca/sites/healthyenvironmentforkids.ca/files/cp\_che-resources/Primer.pdf">http://www.healthyenvironmentforkids.ca/sites/healthyenvironmentforkids.ca/files/cp\_che-resources/Primer.pdf</a>
- 35. Canadian Partnership for Children's Health and Environment. (2005). *Playing it Safe: Childproofing for Environmental Health*. Available at: <a href="http://www.healthyenvironmentforkids.ca/sites/healthyenvironmentforkids.ca/files/cpche-resources/Brochure\_English\_8\_pages.pdf">http://www.healthyenvironmentforkids.ca/files/cpche-resources/Brochure\_English\_8\_pages.pdf</a>
- 36. DRHD. (2014). Get the facts on... Breastfeeding. <a href="https://www.durham.ca/en/health-and-wellness/resources/Documents/BabiesandToddlers/getfactbfcard.pdf">https://www.durham.ca/en/health-and-wellness/resources/Documents/BabiesandToddlers/getfactbfcard.pdf</a>
- 37. Best Start. (2013). *Breastfeeding Matters*. Available at: <a href="http://www.beststart.org/resources/breastfeeding/pdf/BreastfeedingMatters\_2013\_l\_ow\_rez\_reference.pdf">http://www.beststart.org/resources/breastfeeding/pdf/BreastfeedingMatters\_2013\_l\_ow\_rez\_reference.pdf</a>
- 38. Best Start. (2014). My Life My Plan. Available at: <a href="http://www.beststart.org/resources/preconception/MLMP\_14MY01\_Final.pdf">http://www.beststart.org/resources/preconception/MLMP\_14MY01\_Final.pdf</a>
- 39. Ontario Public Health Association. (2014). Shift Enhancing the health of Ontarians: A call to action for preconception health promotion and care. Available at: <a href="http://www.opha.on.ca/getmedia/2da52762-6614-40f7-97ff-f2a5043dea21/OPHA-Shift-Enhancing-the-health-of-Ontarians-A-call-to-action-for-preconception-health-promotion-and-care\_1.pdf.aspx?ext=.pdf">http://www.opha.on.ca/getmedia/2da52762-6614-40f7-97ff-f2a5043dea21/OPHA-Shift-Enhancing-the-health-of-Ontarians-A-call-to-action-for-preconception-health-promotion-and-care\_1.pdf.aspx?ext=.pdf</a>
- 40. DRHD. (2013). Foodborne Illness. <a href="https://www.durham.ca/en/health-and-wellness/food-poisoning.aspx">https://www.durham.ca/en/health-and-wellness/food-poisoning.aspx</a>

