Hepatitis B Lesson Plan

Title: Learning about Liver Wellness and Hepatitis B

Theme: Hepatitis B

Time: 80 minutes

Materials: "Teacher Guide"

Objectives:

- To present basic information regarding the liver and its functions.
- To help students understand how important their livers are to their health and well-being.
- To encourage students to avoid liver-damaging behaviours including alcohol and drug use, unprotected sexual activity, unsafe piercing and tattooing, etc.
- To teach students about hepatitis B including the risks associated with it and the methods to protect themselves from contracting and/or spreading the virus.
- To acknowledge the role vaccination plays in protecting people from hepatitis B.
- To prepare students for the hepatitis B Immunization clinics at their schools.
- To provide students with an opportunity to apply their newly acquired knowledge about hepatitis B to hypothetical situations.
- To reinforce students’ communication skills through their completion of group work and a presentation.
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Curriculum Expectations:

Overall Expectations

By the end of Grade 7, students will:

C1. demonstrate an understanding of factors that contribute to healthy development;

C2. 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; as well as

C3. demonstrate the ability to make connections that relate to health and well-being – how their choices and behaviours affect both themselves and others, and how factors in the world around them affect their own and others’ health and well-being.


Background Information

This lesson is designed to prepare the students for the upcoming hepatitis B immunization clinic in their school. The majority of youth/students will receive vaccination for hepatitis B and yet many do not have a clear understanding of the reasons immunization against hepatitis B is important.

Preparing your grade 7 students for the immunization clinics provides an excellent opportunity to teach them about more general health issues including liver wellness and healthy sexuality. This lesson also allows you to stress the need for students to take responsibility for their own health. They are encouraged to make smart choices such as getting immunized, avoiding alcohol, drugs and unprotected sexual activity.
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They learn how to identify situations that may put them in danger of contracting hepatitis B or other communicable diseases.

There are several components of this lesson: a vocabulary exercise, a teacher-led discussion, group work, presentations and optional homework assignments. All the information necessary to prepare for this lesson is included in this booklet. This comprehensive guide can assist you as you lead the class discussion and field student questions.
Activity One:
Introduction to New Words and Phrases - 15 minutes

In order for your students to grasp the concepts associated with hepatitis B, they will need to learn new words and phrases. Since many of these terms are medical and physiological, students may require either extra time to read them over or significant teacher direction. Two different ways this material can be presented are as follows.

1. On page 21, you will find a list of New Words and Phrases. We recommend that you photocopy this handout and have the students review it in advance of the lesson. If you would like to evaluate their ability to learn these new terms, you can use the Matching Exercise on page 24. Ask students to study the list of new words and phrases. Inform them that they will be asked to match 10 of these terms with their definitions. This way, each student can earn a grade out of 10. If you want to make the task simpler, you could tell the students in advance which 10 terms will appear on the matching exercise.

2. Alternatively, you could photocopy the List of New Words and Phrases on page 26 & 27 onto transparencies/PowerPoint and work through the materials as a class. Should you choose this option the lesson might best be divided into two classes, as defining terms and writing them on to the overheads will take some time.

Once you feel the students understand the new terms, you can begin Activity Two.
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Activity Two: Teacher-Led Discussion – 20 minutes

Distribute the documents entitled, Liver Wellness Handout (page 28) and Hepatitis B Disease Handout (page 29). As you cover the material, ask the students to follow along and add only the most important information to their handouts. The information below will help guide your discussion. Feel free to alter it, as appropriate, based on the academic skills and the maturity of your students.

Part One: Liver Wellness
Part One: Liver Wellness taken from: Canadian Liver Foundation (www.liver.ca)

1. What is a liver:

The liver is the largest internal organ in your body. In children, it is about the size of a large grapefruit. In adults, it is the size of a football and weighs about three pounds.

2. Where is the liver located:

Your liver is located in the upper right part of your middle – below the diaphragm and above the stomach.

3. What does the liver do?

The liver is a very active organ. It performs more separate tasks than any other organ in your body. The two most important functions of the liver are the digestion of food and the cleansing of blood and waste products. The following is a list of the many tasks the liver performs. The liver:

• Helps breakdown the food you eat;
• Absorbs nutrients to keep you healthy;
• Stores iron as well as other vitamins and minerals;
• Makes proteins so you can build your muscles;
• Stores energy so you can be physically active;
• Helps your body heal when you get a cut (by clotting your blood);
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- Fights off germs and viruses that can make you sick;
- Filters poisonous chemicals and toxins that you breathe or touch;
- Makes bile to help in the digestion of fats.

4. How can I take care of my liver?

- Eat healthy foods. Too much fat in your diet can overwork your liver and cause problems.
- Avoid drinking alcohol and smoking.
- Do not touch other people’s cuts, scratches, blood, rashes, blisters or any other sores without wearing gloves as protection.
- Do not take drugs unless they are prescribed by your doctor.
- Never share anyone’s toothbrush, razor, nail clippers or other personal items.
- Wash your hands with soap and warm water throughout the day.
- Avoid unprotected sexual activity.

5. What things can damage my liver?

The following things can damage your liver, which filters toxins from your body and fights viruses:

- Hepatitis viruses including hepatitis B
- Drugs and alcohol
- Cleaning supplies and disinfectants
- Painting supplies and solvents
- Bug sprays, pesticides and insecticides

Part Two: Hepatitis B

6. What is hepatitis B?

Hepatitis B is an inflammation (swelling) of the liver caused by the hepatitis B virus (HBV). Hepatitis B virus produces an infection in the body. This disease affects the liver and can lead to serious illness, liver
damage, liver cancer and even death (Canadian Liver Foundation, 2010).

**Acute Hepatitis B:**

HBV causes two types of hepatitis B: acute and chronic. Approximately 90% of older children and adults who become infected with the hepatitis B virus recover completely. These are considered acute cases. As a result of their infection, these people develop lifelong immunity to the virus. They clear the infection from their bodies and become immune. This means people who had acute hepatitis B will not get it again. They are no longer contagious and cannot pass hepatitis B on to others. Immune people generally do not develop liver failure or liver cancer from having contracted hepatitis B in the past. People who develop acute cases may or may not have any signs or symptoms. This is why many people do not know they have (or ever had) hepatitis B. (Canadian Liver Foundation, 2010)

**Chronic Hepatitis B:**

The chance of a person becoming chronically infected with hepatitis B depends upon his/her age. Unfortunately, about 1-10% of older children and adults, 20-50% of young children aged one to five years and 90% of infants who get infected with the hepatitis B virus cannot get rid of it (Heymann, 2008). They become carriers of the hepatitis B virus and should be considered infectious (CIG, 2006). These people do not develop immunity as a result of infection and they may have traces of the hepatitis B virus in their blood and pass it on to others who do not have immunity. Although they usually show no symptoms and appear healthy, these carriers can develop chronic hepatitis, cirrhosis (scarring of the liver) or liver cancer years after becoming infected (WHO, 2010). Some individuals with chronic hepatitis B will have minimal liver disease/damage and they will never develop serious complications.
7. Who can get it?

Anyone can get hepatitis B. During our lives, most people will be exposed to situations in which they could contract this disease. People, who come into contact with another person’s blood or body fluids, including anyone who engages in unprotected sexual activity, can be exposed to hepatitis B. When a child is born to a mother who has hepatitis B, she/he could get the disease from the mother during childbirth (Health Canada, 2010). The good news is that there are many ways to protect ourselves from hepatitis B and other communicable disease. Please see page 13 (question number 13) for more information.

8. How is hepatitis B spread?

The hepatitis B virus (HBV) is found in blood and body fluids including blood, saliva, vaginal fluids, semen and urine. Contact with even very small amounts of infected blood or body fluids can cause an infection. HBV is not found in tears and sweat. Hepatitis B can be spread in the following ways.

- Through contact with blood or certain body fluids (semen, vaginal fluids, saliva) of an infected person. The infected fluids must enter a break in the skin (cut, bite) or be absorbed through a mucous membrane (eyes, nose, vagina or anus).
- Through contact with a surface contaminated with infected blood/body fluid as the hepatitis B virus can live on surfaces for up to one week.
- Through sexual activity.
- By sharing needles, spoons, straws, filters and other drug-related equipment.
- By using non-sterile equipment for tattooing, body piercing, acupuncture and aesthetic procedures.
- By an infected mother, who can pass the virus to her baby at birth.
- By receiving blood transfusions or blood products that have not been screened for hepatitis B. In Canada, all blood is screened for the hepatitis B virus.
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Hepatitis B is not spread by water, food, kissing, sneezing or coughing. Saliva does contain the virus, but can transmit the virus if it enters the blood stream directly, such as through a bite.

9. What are the risks associated with hepatitis B?

The risks of contracting hepatitis B depend on your age. When babies and children are exposed to HBV, they have a significant chance of carrying the virus for life. (Approximately 50% of young children and 90% of infants who are infected with the hepatitis B virus cannot get rid of it, and will become carriers) (Heymann, 2008).

The risks associated with hepatitis B include serious illness, liver damage such as cirrhosis (scarring of the liver), liver cancer and even death. Hepatitis B is the most frequent cause of liver cancer worldwide and liver cancer is one of the three most common cancers in the world. (WHO, 2010).

10. How would I know if I have hepatitis B?

It may be hard to tell if you have hepatitis B. This is because many people who have hepatitis B show no signs or symptoms of the disease. Most infants and children with the HBV infection do not look or feel sick and only half of infected adults have any symptoms. However, some people do have symptoms. These might include:

- Loss of appetite
- Nausea and/or vomiting
- Jaundice (the yellowing of the whites of the eyes and skin)
- Fever
- Feeling weak and tired
- Abdominal (stomach) pain
- Joint pain
- Dark urine
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The only way to know for sure if you have hepatitis B is by having blood tests. If you think you may have been exposed to hepatitis B, see your doctor who will perform the three standard three blood tests for HBV. These tests will determine if you are currently infected, if you have been infected in the past and/or if you are immune to HBV (you have protection). Once you are immunized against hepatitis B, it is likely that you will not be able to contract hepatitis B because the vaccine is safe and effective.

11. What can I do if I contract this disease?

Safety Measures:

It is important to remember that most adults and older children who get hepatitis B recover completely. Unfortunately, not all people who contract it can get rid of the disease, and become carriers for life. The risk of becoming a hepatitis B carrier after infection varies with age: 90% of those infected in infancy, 20-50% of those infected in childhood, and 6-10% infected in adulthood will become carriers.

If you or someone you live with is a carrier, some precautions should be taken. It is most important that carriers do not pass the HBV to others. This means protecting people from contact with your blood and other body fluids. The following is a list of things you should do if you have a chronic HBV infection to prevent passing the virus to other people:

- Make sure the people you live with are vaccinated against hepatitis B.
- Cover all sores and cuts with a bandage.
- Carefully dispose of used items that contain blood (including band-aids, feminine hygiene pads and tampons) in a tied plastic bag.
- In situations where blood is present (such as a cut or nosebleed) be sure anyone helping you wears protective gloves.
- Use bleach to clean up blood spills.
- Always use condoms and dams during sexual activity.
- Tell you doctor and dentist or other health-care providers who might have contact with your blood that you have hepatitis B
- Visit your doctor regularly (every six to twelve months) for a check-up.
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• If you are pregnant, tell you doctor that you have hepatitis B so your baby can be immunized within a few hours of his/her birth.

People who have hepatitis B need to avoid actions that put others at risk. The answer for question #8 (on page 10) provides a list of the ways HBV is spread. Carriers need to pay special attention to these guidelines.

_Treatment:_

There is no medication to kill the virus completely, but medication is available to treat hepatitis B. Treatment for HBV is aimed at improving the body’s ability to control the infection, prevent the development of cirrhosis, liver failure and liver cancer (Canadian Liver Foundation, 2010). There are two types of treatment available for hepatitis B: a treatment by injection and oral medication (Canadian Liver Foundation, 2010). Treatment time can vary from four to six months. Treatment by injection is effective for about 25-40% of treated patients (Heymann, 2008). The side effects of the treatment can be problematic for some individuals.

12. **How can I protect myself?**

The best way to protect yourself is to get immunized against hepatitis B. However, even with vaccination there is still a small chance that individuals are not fully protected against the hepatitis B virus and you can still catch other diseases and infections, such as hepatitis C & HIV through direct contact with people’s blood and body fluids. Avoid unprotected sexual activity, do not share personal care items and avoid drugs or sharing any drug related equipment. (Canadian Liver Foundation, 2010)

13. **Are tattooing and piercing safe?**

Health Canada provides clear direction for people considering tattoos and piercing. Their recommendations are included in Appendix A on page 43. For more information, please consult their website at [http://www.hc-sc.gc.ca/](http://www.hc-sc.gc.ca/) and search the terms “tattooing and piercing”.
Part Three: Immunization

Since over 90% of grade 7 students in Peel receive vaccination for hepatitis B annually, it is advisable to spend some time discussing the vaccine and the clinic process.

The following questions and answers are important because they help empower students to prepare for vaccination. We recommend that you share this information with your class before the clinic – either by completing the lesson in this package or by leading a class discussion.

14. Why should I get vaccinated against hepatitis B?

By receiving the hepatitis B vaccine, you are taking steps to make sure you will not get this disease. You are increasing your chances of staying healthy. Vaccines protect you by prompting your body to create its own defences. The hepatitis B vaccine helps to prevent against hepatitis B infection, which can permanently damage the liver and cause liver cancer.

Adolescents between 11 and 15 years of age receive two doses of vaccine, given approximately four to six months apart. All the needles are sterile and are discarded in special containers after the injection is given. The vaccine is very safe. It has been used in Canada for more than 15 years. There is no risk of getting hepatitis B or any other virus from the vaccine. The vaccine is synthetic and does not contain any blood or plasma products.

Antibiotics are effective in treating bacterial infections only. Because a virus causes hepatitis B, antibiotics will not work. The hepatitis B vaccine protects people from the virus. HBV causes about 80% of all cancers of the liver and can damage the liver forever. It is important for young
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students to receive the hepatitis B vaccine before they begin to engage in high-risk behaviours.

Hepatitis B immunization is also beneficial for people who, as a result of their work conditions, may be at greater risk to exposure to the hepatitis B virus later in life.

Occupations that pose a higher risk of exposure to the hepatitis B virus include:

- Lifeguards
- First-aid providers
- Doctors, nurses and other health-care workers
- Dentists and dental hygienists
- Police officers, firefighters and emergency service workers
- Any occupation that involves contact with blood
Activity Three: Group Work – Discussion about hepatitis B Scenarios – 20 to 30 minutes

Have the students form groups of four and number themselves (group member one, two, three and four). Distribute one of the handouts, entitled Scenarios for Group Work (pages 32 – 39) to each group.

Tell the students they will be reading about a young person who is in a risky situation. They are to develop a number of ways this character could better protect him/herself from contracting hepatitis B or other communicable diseases.

Group member number one will read the scenario aloud. The second group member will write down all ideas the group develops in the brainstorming session. This can be completed on scrap paper. Group member number three will record the group’s final responses on the handout. The fourth group member will present the findings to the class.
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SET ONE: Scenarios #1, 2, 8

1) Why is this person at risk?

• Exposure to blood that is visible

2) Explain the dangers s/he might face.

• Jose and Natasha are in situations where another person’s blood may come into contact with an opening on their skin – they could be exposed to the hepatitis B virus if this blood is contaminated
• Krupal may or may not have an open sore or cut – if she does, then she has to avoid contact with Rafael’s blood
• This blood may contain HBV or other diseases

3) What could s/he do to protect him/herself?

Things Jose could do to protect himself:

• Avoid getting the other player’s blood near the wound on his eyebrow;
• Use a towel to cover his own wound and apply pressure to stop the bleeding;
• Tell the coach/trainer about the injury in order to access the first aid kit – apply waterproof dressing (band aid);
• Wear a mask to better protect himself in the future.

Things Natasha could do to protect herself:

• Refuse to have her ears pierced by Kelly’s sister;
• Tell her friends about the dangers of sharing used piercing needles;
• Voice her concern’s to Kelly’s parent (s) or guardian;
• Talk with her parent(s) about getting her ears pierced at a professional studio; and
• Visit a professional piercer and check to make sure that:
  • his/her equipment is sterilized;
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- the studio is kept clean;
- s/he is wearing gloves;
- equipment is new and disposable or sterile; and
- the piercer is willing to answer questions about his/her safety precautions.

- Have someone help pierce her ears using a sterilized needle*

**Things Krupal could do to protect herself:**

- Check that her hands and arms are free of cuts, scratches or sores before picking up Rafael;
- Put on the latex gloves from her first aid kit and use a towel/bandage to apply pressure to Rafael’s cut;
- Ask Rafael to cover and put pressure on his cut with a towel/bandage, while she calls for help (from a parent, neighbour, ambulance, etc.).

**How could these people protect themselves in similar situations?**

- Get vaccinated;
- Avoid blood-to-blood or blood-to-sore contact (i.e.: do not touch people’s blood, use gloves if you must touch blood);
- Cover open wounds with waterproof dressing.
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SET TWO: Scenarios #4, 5, 6, 7

1) Why is this person at risk?
   • Exposure to blood that is not visible

2) Explain the danger s/he might face.
   • **Sabir, Lee, Mimi and Darrell** are all in situations where another person’s blood reside, even though it is dirty and/or not visible, may come into contact with an opening on their skin – they could be exposed to hepatitis B virus in this contaminated blood
   • *This blood may contain HBV or other diseases*

3) What could s/he do to protect her/himself?

**Things Sabir could do to protect himself:**

• Refuse to get a tattoo from Michael’s brother;
• Talk with his parent (s) about getting a tattoo at a professional studio;
• Visit a professional tattoo artist and check to make sure that:
  ▪ equipment is sterilized;
  ▪ the studio is kept clean;
  ▪ the tattoo artist is wearing gloves;
  ▪ equipment is new and disposable or sterile; and
  ▪ the tattoo artist is willing to answer questions about his/her safety precautions*. 
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Things Lee could do to protect himself:

- Tell his friends that he does not want to try injecting drugs; or
- Use a needle that has not been used by anyone else if he decided to try it.

* There are many risks associated with drug use (addiction, loss of control, inability to make good decisions, etc.) and there are also serious medical and physical risks that come with drug use. Your best choice is to avoid doing drugs. If you are going to use drugs, do not share needles, spoons, straws, filters and other drug-related equipment.

Things Mimi could do to protect herself:

- Tell Bridget that she would rather not borrow and use her razor;
- Ask a counsellor if she could buy a new disposable razor at the tuck shop; or
- Decide not to shave her legs while at camp – wait until she gets home.

Things Darrell could do to protect himself:

- Politely explain his concerns to the instructor;
- Refuse to perform the exercise;
- Teach the instructor about the hepatitis B and safety concerns;
- Ask to use CPR practice dummies in the course; and/or
- Discuss the use of a CPR mouth barrier in actual emergency situations where CPR is required.

How could these people protect themselves in similar situations?

- Get vaccinated;
- Never use another person’s personal items(such as razors, toothbrushes and nail clippers); and
- Never put their mouths on a person’s broken skin.
SET THREE: Scenario #3

1) Why is this person at risk?

- Exposure to body fluids (vaginal fluid, semen, blood) that are not visible

2) Explain the danger s/he might face.

- Yvonne is in a situation where another person’s body fluids or blood may come into contact with her body fluids – she could be exposed to the hepatitis B virus through sexual contact with Calvin if he already has the disease
  - These body fluids may contain HBV or other diseases

3) What could s/he do to protect him/herself?

**Things Yvonne could do to protect herself:**

- Get vaccinated and
- Avoid unprotected sexual activity or
- Delay having sex.
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Additional Learning Activities

If students have access to the internet at the school library, they could visit websites to answer the questions regarding liver wellness and hepatitis B in Activity Two (page 5).

You might consider having students use role-playing during this lesson. Students could act out the scenarios and/or the possible solutions to the situation encountered by the character. This would allow for students to practise their negotiation, refusal and communication skills.

Some scenarios could be used for individual rather than group exercises.

Possible Additional Assessment

This lesson lends itself to multiple forms of assessment.

Matching Exercise for New Words and Phrases: You can evaluate the students’ ability to learn and retain new vocabulary by using this exercise.

List of New Words and Phrases: You might wish to photocopy these sheets and ask students to record the definitions as a homework assignment.

Note-taking Skills: If you collect students’ liver wellness and hepatitis B handouts, you could evaluate their note-taking skills for accuracy and appropriate length/detail.

Group Presentation: You can evaluate your students or have group members evaluate themselves and/or each other in terms of their participation.

Other Ideas: You could develop a quiz that tests students’ memory of the hepatitis B material or have them create a quiz or crossword puzzle.
Matching Exercise

New Words and Phrases

**Acute:** short-term infection; it may or may not last a long time; some acute illnesses can be cured (Canadian Liver Foundation, 2010).

**Antibiotics:** medicines that destroy harmful bacteria; they are used to treat some infections that are caused by bacteria.

**Alcohol:** a drink that can intoxicate a person (make him/her drunk); some examples of alcohol are beer, wine, liquor, spirits, etc.

**Bacteria:** tiny organisms that are found in plants or animals; some bacteria can cause disease; by taking antibiotics we can get rid of most harmful bacteria.

**Bile:** a substance secreted by the liver that helps in the digestion of fats. It is stored in the gall bladder until required (Canadian Liver Foundation, 2011).

**Blood-to-blood contact:** when a person’s blood comes into contact with another person’s blood; blood-to-blood contact happens if you have a sore or cut that is bleeding and it comes into contact with someone else’s blood.

**Carrier:** A hepatitis B carrier is a person who carries the virus in their blood and certain body fluids for the rest of their life. Carriers look and feel well but can continue to pass the infection to others.

**Chronic:** an infection lasting for a long period of time (Canadian Liver Foundation, 2010).

**Cirrhosis:** a chronic disease of the liver which occurs when healthy liver cells are damaged; the liver is scarred as it attempts to protect itself from inflammation. Blood cannot flow freely through scarred liver tissue and thus the liver cannot perform its normal functions; cirrhosis can happen when a person gets hepatitis B (Canadian Liver Foundation, 2011).
Matching Exercise

New Words and Phrases

**Communicable Disease:** a disease that is contagious or transmissible between people; you can catch a communicable disease from another person.

**Hepatitis B:** a liver disease caused by the hepatitis B virus and spread through direct contact with blood or body fluids or sexual contact with an infected person.

**Immune System:** the natural defence mechanism in the body that works to protect you from dangerous organisms or substances that can make you sick (Canadian Liver Foundation, 2011).

**Immunization (vaccination):** Also called injections, vaccinations, or shots; it can mean both receiving a vaccine and becoming immune to ward off a disease as a result of immunization. Immunizations help the body to make its own protection (or antibodies) against certain diseases. (MOH) 

**Infection:** when bacteria or viruses damage your tissue; this can cause illness or disease.

**Injection Drug Use:** when a person uses a needle to insert drugs into their blood stream.

**Jaundice:** yellowing of the skin and eyes as a result of a build-up of bilirubin in the blood. May be a symptom of many liver diseases; this occurs as a symptom of various diseases such as hepatitis B (Canadian Liver Foundation, 2010).

**Liver:** the largest internal organ in your body that performs many important tasks.
Matching Exercise

New Words and Phrases

Liver Transplant: the process by which a person who has an unhealthy liver undergoes a life-saving operation to replace a diseased liver with a healthy, donated liver (Canadian Liver Foundation, 2011).

Sexually Transmitted Infections (STIs): also known as STDs or venereal diseases (VD) - are infectious diseases that are transferred from one person to another through any type of sexual contact (oral, anal and vaginal) (PPH, 2010).

Symptom: a sign of an illness or disease.

Virus: a tiny microorganism, smaller than bacteria, which cannot replicate itself without a host and can cause sickness in humans that cannot be treated with antibiotics (Canadian Liver Foundation, 2011).
# Matching Exercise

## New Words and Phrases

Read the definitions in the box on the right. Find the term that matches each definition in the box below. Write the matching number on the line beside each definition.

Good Luck!

<table>
<thead>
<tr>
<th>Definition</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lasting for a long period of time</td>
<td>8. Chronic</td>
</tr>
<tr>
<td>The process by which people receive antibodies (proteins) by injection (needle) to give the ability to fight infection</td>
<td>7. Immunization</td>
</tr>
<tr>
<td>An infection that is spread through intimate sexual contact</td>
<td>9. Sexually Transmitted Infections</td>
</tr>
<tr>
<td>The yellowing of the whites of the eyes and skin that occurs as a symptom of hepatitis B</td>
<td>4. Jaundice</td>
</tr>
<tr>
<td>The largest internal organ in your body that performs many important tasks</td>
<td>5. Hepatitis B</td>
</tr>
<tr>
<td>When a person’s blood comes into contact with another person’s blood</td>
<td>1. Blood-to-blood contact</td>
</tr>
<tr>
<td>Tiny organisms that often cause disease</td>
<td>10. Virus</td>
</tr>
<tr>
<td>A chronic disease of the liver</td>
<td></td>
</tr>
<tr>
<td>A person who shows no symptoms but who has an infectious disease and can pass it to others</td>
<td>2. Carrier</td>
</tr>
<tr>
<td>A liver disease caused by a virus</td>
<td></td>
</tr>
</tbody>
</table>

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Peel Public Health: Vaccine Preventable Diseases Program  
Contact Peel Public Health at 905-799-7700 or visit [www.ImmunizePeel.ca](http://www.ImmunizePeel.ca)  
May 2012
Matching Exercise

New Words and Phrases

Answer Sheet

1. Blood-to-blood contact
2. Carrier
3. Cirrhosis
4. Jaundice
5. Hepatitis B
6. Liver
7. Immunization
8. Chronic
9. Sexually Transmitted Infections
10. Virus

8. Lasting for a long period of time
7. The process by which people receive antibodies (proteins) by injection (needle) to give the ability to fight infection
9. An infection that is spread through intimate sexual contact
4. The yellowing of the whites of the eyes and skin that occurs as a symptom of hepatitis B
6. The largest internal organ in your body that performs many important tasks
1. When a person’s blood comes into contact with another person’s blood
10. Tiny organisms that often cause disease
3. A chronic disease of the liver
2. A person who shows no symptoms but who has an infectious disease and can pass it to others
5. A liver disease caused by a virus
List of New Words and Phrases

Acute:

Antibiotics:

Alcohol:

Bacteria:

Bile:

Blood-to-blood contact:

Carrier:

Chronic:

Cirrhosis:

Communicable Disease:

Hepatitis B:

Immune System:

Immunization:
List of New Words and Phrases

Infection:

Injection Drug Use:

Jaundice:

Liver:

Liver Transplant:

Sexual Activity:

Sexually Transmitted Infection:

Symptom:

Virus:
Handout: Liver Wellness

Please answer these questions in the space below.

1. What is a liver?

2. Where is my liver located?

3. What does my liver do?

4. How can I take care of my liver?

5. What things can damage my liver?

1) _______________________________________________________

2) _______________________________________________________

3) _______________________________________________________

4) _______________________________________________________

5) _______________________________________________________

Contact Peel Public Health at 905-799-7700 or visit www.ImmunizePeel.ca

May 2012
Handout: Hepatitis B

Please answer these questions in the space below.

1. What is hepatitis B?

2. Who can get it?

3. How is hepatitis B spread?

4. What are the risks associated with it?

5. How would I know if I have hepatitis B?

6. What can I do if I contract this disease?

7. How can I protect myself?

1) ___________________________________________________

2) ___________________________________________________

3) ___________________________________________________

4) ___________________________________________________

5) ___________________________________________________

6) ___________________________________________________

7) ___________________________________________________
Homework Assignment

Vaccination

Please answer these questions in the space below.

1. Why should I get vaccinated against hepatitis B?

2. What can I do to prepare for the immunization?

3. What happens on the day of the clinic?

1) _______________________________________________________

2) _______________________________________________________

3) _______________________________________________________
Homework Assignment

Other Safety Precautions

In the space below, describe three different ways you can protect yourself from contracting hepatitis B, other than immunization. Explain why these things help to keep you safer.

1) ______________________________________________________

2) ______________________________________________________

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Contact Peel Public Health at 905-799-7700 or visit www.ImmunizePeel.ca

May 2012
Worksheet: Group #1

Jose is an athletic fifteen-year-old boy. He is a member of his high school hockey team. During a scramble for the puck, Jose runs into the forward on the opposing team. Jose’s right eyebrow and the forward’s mouth are bleeding.

Why is Jose at risk in this situation? Explain the danger he might face.

What could Jose do to protect himself?

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Peel Public Health: Vaccine Preventable Diseases Program
Contact Peel Public Health at 905-799-7700 or visit www.ImmunizePeel.ca
May 2012
Worksheet: Group #2

Krupal is fourteen years old. She passed her babysitting and first aid course last summer. Every once in a while she looks after the twin boys, Rafael and Giovanni, who live next door. One day, while she is taking care of them, Rafael falls off the swing in the playground and bites through his bottom lip. His lip is bleeding badly, as Krupal runs over to pick him up.

Why is Krupal at risk in this situation? Explain the danger she might face.

What could Krupal do to protect herself?

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Lesson One

Worksheet: Group #3

Yvonne and Calvin have been going out for two years. Calvin has been talking about having sex for about a year now, but they have not done so because Yvonne told him that she was not ready. Recently, Yvonne has been thinking about it and feels she is ready to take that step.

Why is Yvonne at risk in this situation? Explain the danger she might face.

What could Yvonne do to protect herself?

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Worksheet: Group #4

Sabir has been asking for a tattoo since he was thirteen years old. His parents told Sabir that he would have to wait until his eighteenth birthday to get a tattoo. As Sabir’s eighteenth birthday approaches, he is making plans to get a tattoo.

Michael, one of his friends at school, tells Sabir that his brother could do the tattoo for a good price. Sabir also knows of a tattoo studio located downtown. He has not yet made up his mind about where he will go to get it done.

Why is Sabir at risk in this situation? Explain the danger he might face.

What could Sabir do to protect himself?
Lesson One

Worksheet: Group #5

While at a party with some friends, Lee is introduced to some older guys who are doing drugs. Lee watched while one of them injected drugs into his arm. Once the guy was finished, he passed the needle to Lee’s friend Justin.

Justin also injected drugs into his arm. Then, Justin passes the needle to Lee. Since both of the other guys seemed alright, Lee is considering trying drugs, just this one time.

Why is Lee at risk in this situation? Explain the danger he might face.

What could Lee do to protect himself?

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Worksheet: Group #6

Mimi and Bridget are best friends. While away for a week at summer camp, Mimi realizes that she forgot her razor at home. Bridget offers to let Mimi borrow her razor to shave her legs. Bridget’s razor looks clean and Mimi is considering using it.

Why is Mimi at risk in this situation? Explain the danger she might face.

What could Mimi do to protect herself?

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Worksheet: Group #7

Darrell has been a lifeguard at his community pool for about three years. While taking his final national Lifeguard Service course, Darrell is paired up with another lifeguard who has an open sore on her upper lip. He is worried about performing mouth-to-mouth resuscitation on her. He is not sure what to do.

Why is Darrell at risk in this situation? Explain the danger he might face.

What could Darrell do to protect himself?

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A bunch of girls in Natasha’s class are staying at Kelly’s house for a sleepover. Kelly will be twelve years old next week. Around 10 p.m., Kelly suggests that the girls pierce their ears as part of a friendship pact. Some of the girls are really excited about the idea, others, like Natasha, are a bit more nervous.

Kelly finds a needle in her sewing kit. She asks her older sister, Lindsay, to help because she pierced her own ears two years ago. Kelly offers to go first. Natasha is third in line.

Why is Natasha at risk in this situation? Explain the danger she might face.

What could Natasha do to protect herself?

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Lesson One

References


Resource List

**Ministry of Health and Long Term Care**


Ministry of Health and Long-Term Care – Immunization Hepatitis B Vaccine

Lesson One

Ministry of Health and Long-Term Care – Hepatitis

**Canadian Liver Foundation**

[http://www.liver.ca/Home.aspx](http://www.liver.ca/Home.aspx)

Canadian Liver Foundation

**Public Health Agency of Canada**


Public Health Agency of Canada – Sexually Transmitted Infections: Hepatitis B


Public Health Agency of Canada – Vaccine Preventable Diseases: Hepatitis B


Public Health Agency of Canada – Hepatitis B Fact Sheet

**Peel Public Health**

[http://www.peelregion.ca/health/hepb/hepb.htm](http://www.peelregion.ca/health/hepb/hepb.htm)

Peel Public Health – Grade 7 Hepatitis B Immunization Program

[http://www.intheknowpeel.ca/](http://www.intheknowpeel.ca/)

Peel Public health Healthy Sexuality Website – part of an awareness campaign education teens and young adults about sexually transmitted infections (STI), safer sex, birth control and Public Health Healthy Sexuality Clinics operated by the Region of Peel

[http://www.peelregion.ca/health/talk-to-me/preparing/easier.htm](http://www.peelregion.ca/health/talk-to-me/preparing/easier.htm)

Sexuality education specialists recommend advice to teachers who wish to teach sexuality education in a way that makes the experience more enjoyable for both teachers and students
Lesson One

http://www.peelregion.ca/health/sexuality/index.htm
Peel Public Health Healthy Sexuality Website – general information

http://www.peelregion.ca/health/sexuality/sti/comm-sti.htm
Peel Public Health Healthy Sexuality Website – STIs

http://www.peelregion.ca/health/sexuality/sti/sti-hepatitis.htm
Peel Public Health – Healthy Sexuality: Hepatitis B & C

http://www.peelregion.ca/health/talk-to-me/
A sexuality education resource for educators working with youth in Grades 7 & 8

http://www.peelregion.ca/health/helping-teens/
A resource for educators – Helping teens to make healthy decisions about sex and relationships

Centre for Disease Control and Prevention (CDC)- United States

http://www.cdc.gov/vaccines/vpd-vac/hepb/default.htm
CDC Hepatitis B Vaccination

http://www.cdc.gov/hepatitis/ChooseB.htm
CDC’s official Hepatitis B website