

Viral Hepatitis

**Satellite Conference and Live Webcast
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Video Communications and Distance Learning Division

Faculty

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Viral Hepatitis

- Often referred to as the “silent disease”
- Many people do not know they are at risk or possibly infected with hepatitis
- Public Health officials must protect at-risk populations from infection through awareness and education

Defining Viral Hepatitis

- Hepatitis vs. Viral Hepatitis
 - Hepatitis means “inflammation of the liver”
 - Can have numerous causes such as meds, heavy alcohol use, bacteria, etc.
 - Viral hepatitis is inflammation (redness, swelling) of the liver that is caused by a virus

Defining Viral Hepatitis

- Types of Viral Hepatitis
 - Five different types
 - A, B, C, D, E
 - All affect the liver but are unique
 - Most common types seen in U.S.
 - A, B, C

Hepatitis A Overview

- Found in the feces of an infected person
- Can be stable and infectious in environment for months
 - i.e. contaminated water sewage
- An acute disease
 - Usually less than 2 months

Hepatitis A Overview

- Transmitted via fecal-oral route
 - Ingesting something that has been contaminated fecally
 - Person to person by close personal contact (oral-anal sex)
 - Most persons recover and develop protective antibodies
 - Rarely fatal

Hepatitis B Overview

- Found in blood and certain body fluids
- Primarily transmitted by blood, semen, vaginal secretions
- Highly infectious
 - Survives outside body for 7 days still capable of causing infection

Hepatitis B Overview

- Often no symptoms during acute stage (average 3-6 mos.)
- ~ 2-6% of persons develop chronic HBV
- Spread when blood/body fluids from an infected person enters the body of a someone who is not immune

Hepatitis B Overview

- Most common transmission through
 - Unprotected sex
 - Mom to baby (during birth)
 - Through opening of the skin (needle sticks)

Hepatitis C Overview

- Found in blood and certain body fluids of an infected person
- Often mild or no symptoms
- ~ 60-70% of persons develop chronic infection
- If a person does clear the virus no protective antibodies will develop

Hepatitis C Overview

- Primarily transmitted by direct blood to blood contact
 - Most common transmission today is through sharing drug paraphernalia

What Are the Symptoms?

- **Viral hepatitis symptoms are similar no matter which type a person has**
- **If symptoms occur, the person may experience any or all of the following**
 - **Jaundice, fever, loss of appetite, fatigue, dark urine, abdominal pain, diarrhea, nausea, and vomiting**
 - **Length of time symptoms occur may differ with each virus**

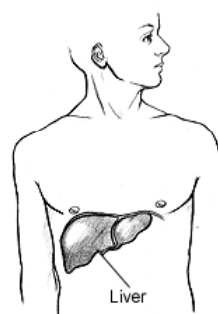
Who Is At Risk?

Hepatitis A	Hepatitis B	Hepatitis C
Household contacts of infected persons	Persons with multiple sex partners in 6 mos.	Illicit drug users (injecting or snorting- even once)
Sex partners of infected persons	Persons with a history of STDs (including HIV)	Health care/Public safety workers
Travelers to HAV endemic countries	Illicit drug users (injecting or snorting)	
Men who have sex with men (MSM) and are not in mutually monogamous relationships	Health care and public safety workers exposed to blood	Hemodialysis patients
Illicit drug users	Household contacts of infected persons	Recipients of blood/blood products before 1992
	Prison or "street" tattooing/piercing	Prison tattooing/piercing
	Immigrants from areas with high (endemic) rates of HBV	"Street" tattooing/piercing
	Birth to an infected mother	

Tips To Prevent Transmission

Hepatitis A	Hepatitis B	Hepatitis C
Vaccination	Vaccination	Never share anything that may have blood on it (needles, razors, toothbrushes, snorting straws etc.)
Practice good hand washing	Use latex condoms during sex (multiple/unfamiliar partners)	Use latex condoms during sex (multiple/unfamiliar partners)
Use latex condoms/barriers during oral or anal sex	Never share anything that may have blood on it	Professionals exposed to blood should follow recommended precautions
Be careful with eating/handling raw foods	Limit sex partners	Limit sex partners
	Consider risks associated with tattooing and piercing	Consider risks associated with tattooing and piercing

The Liver



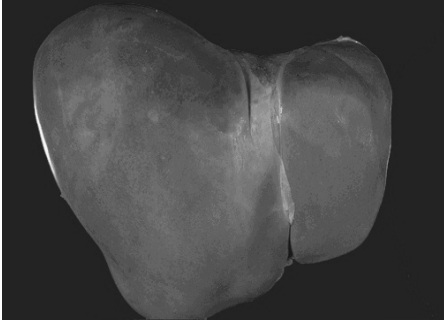
The Liver

- **Acts as a filter**
 - **Removes harmful chemicals from blood**
- **Largest internal organ**
- **Weights about 3 lbs (men)**
- **Located on right side under ribcage**
- **Ability to regenerate**

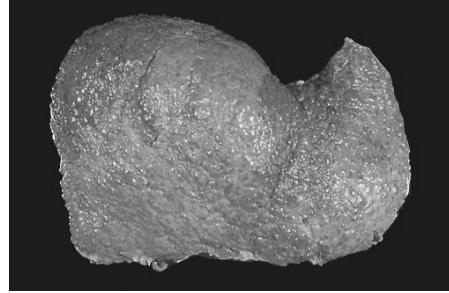
The Liver

- **Has over 500 vital functions**
- **Involved in many digestive activities**
- **Stores nutrients and vitamins**
- **A "non-complaining organ"**

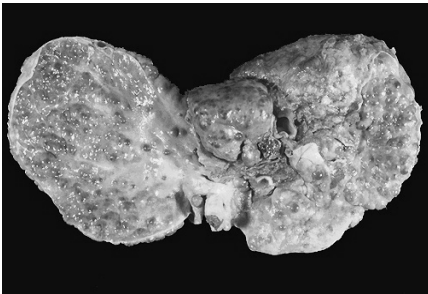
Normal Healthy Liver



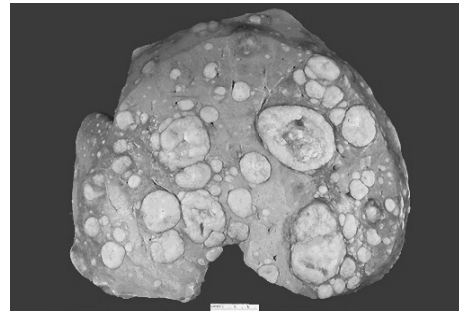
Micro Cirrhosis



Severe Macro Cirrhosis



Liver Cancer



Hepatitis B

- ~800,000-1.4 million with chronic hepatitis B infection in the U.S.
- ~65% are unaware of infection
- Adults represent 95% of new HBV infections (2006)
- African Americans represent the highest incidence of hepatitis B

Hepatitis B

- Among Asian Americans/PI 1 in 12 persons have chronic HBV
 - Liver cancer is the second leading cause of cancer among Chinese men

Hepatitis C

- ~ 2.7-3.9 million persons with chronic hepatitis C infection in the U.S.
- ~ 75% are unaware of infection
- Nationally, IDUs represent at least 50% of HCV reports
- African Americans have twice the death rate of HCV compared to Caucasians

Hepatitis C

- Over 150,000 deaths related to Hepatitis B and C are expected to occur within the next 10 years

What Are Estimated Transmission Rates Annually in the U.S.?

- In 2007, CDC estimated
 - 25,000 persons became infected with hepatitis A
 - 43,000 infected with hepatitis B
 - 17,000 infected with hepatitis C

Incidence of Viral Hepatitis Among Men in the U.S.

- In 2007, the incidence of hepatitis A among males in the U.S. was 1.1 cases per 100,000 population
 - Compared to 0.9 cases per 100,000 population among females

Incidence of Viral Hepatitis Among Men in the U.S.

- In 2007, the rate of acute hepatitis B among males (1.9 cases per 100,000 population) was higher than cases reported for females (1.2 cases per 100,000 population)

Incidence of Viral Hepatitis Among Men in the U.S.

- In 2004, among outpatient and inpatient settings the age adjusted rate of visits for hepatitis C was higher for males than females

Hepatitis A Testing

- A doctor can determine if you have hepatitis A by discussing your symptoms and taking a blood sample
- If you are not immune and are recently exposed to hepatitis A virus you might benefit from an injection of immune globulin or hepatitis A vaccine

Hepatitis A Testing

- However, the vaccine or immune globulin must be given within the first 2 weeks after exposure to be effective

Hepatitis B Testing Recommendations

- The following men are recommended for testing
 - Hemodialysis patients
 - Foreign-born men from countries of high HBV endemicity
 - HIV-positive men

Hepatitis B Testing Recommendations

- Men with known or suspected exposure to HBV including
 - Household contacts of HBV-infected persons
 - Men with known occupational or other exposures to infectious blood or body fluids
- * Recommendations not exclusive to men

Hepatitis C Testing Recommendations

- Persons who should be tested routinely for hepatitis C virus (HCV) infection based on their risk for infection
 - Men who have injected illegal drugs, including those who injected once or a few times many years ago and do not consider themselves as drug users

Hepatitis C Testing Recommendations

- Men with selected medical conditions, including
 - Men who received clotting factor concentrates produced before 1987
- Men who were ever on chronic (long-term) hemodialysis

Hepatitis C Testing Recommendations

- Men with persistently abnormal liver enzyme levels
- Men who received a transfusion of blood or blood components before July 1992
- Men who received an organ transplant before July 1992

* Recommendations not exclusive to men

Additional Recommendations

- Persons who should be tested routinely for HCV-infection based on a recognized exposure
 - Healthcare, emergency medical, and public safety workers after needle sticks, sharps, or mucosal exposures to HCV-positive blood

Types of Treatment

- Hepatitis B
 - Usually not treated unless it becomes chronic
 - May include a combination of drugs
 - Interferon (Peg), Lamivudine, Entecavir, Adefovir

Types of Treatment

- Hepatitis C
 - Interferon (Peg) and Ribavirin
 - Length of time for treatment varies for both B and C
 - Hepatitis C Treatment can be successful with patients who are actively seeking substance abuse treatment
 - Treatment helps slow or stop virus from damaging liver further

Take Home Points

- If you have any type of chronic hepatitis avoid alcohol
 - It can worsen liver disease
- Always cover open sores and wounds
- Avoid smoking or any type of recreational drugs

Take Home Points

- Consult with a physician before taking OTC meds or herbs
- Note that there are no special dietary guidelines for people with chronic hepatitis
 - Eat a balanced diet

Take Home Points

- **Persons with chronic hepatitis should have ongoing medical care, exercise, get plenty of rest, and drink water regularly**

More Information

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1-866-674-4807
www.adph.org/hepatitis

Resources

www.cdc.gov/hepatitis
www.hcvadvocate.org
Illinois Department of Public Health
Nebraska Department of Health &
Human Services
National Coalition of STD Directors