



# Hepatitis

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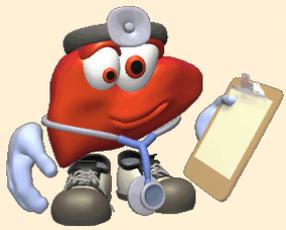
4/17/08



# The participants will be able to...

- list three functions of the liver
- define what Hepatitis A, B & C are
- explain how Hepatitis can be transmitted
- differentiate three risk factors for developing Hepatitis





# Diseases Are Transmitted By...

## Direct Contact:

Direct contact transmission requires physical contact between an infected person and a susceptible person, and the physical transfer of virus and or bacteria.



## Indirect Contact:

Indirect contact transmission refers to situations where a susceptible person is infected from contact with a contaminated surface.





# Diseases Are Transmitted By...

## Airborne:

Airborne transmission refers to situations where droplet nuclei or dust particles containing viruses or bacteria can remain suspended in air for long periods of time.



## Vector:



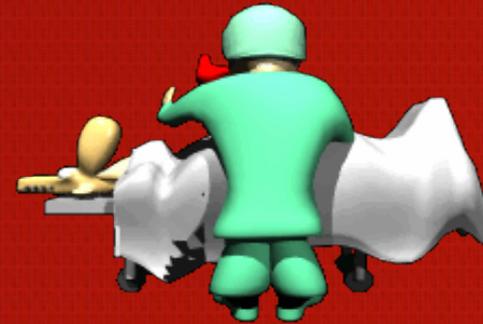
Vectors are animals or insects that are capable of transmitting diseases.





# Fluids That Can Transmit Diseases...

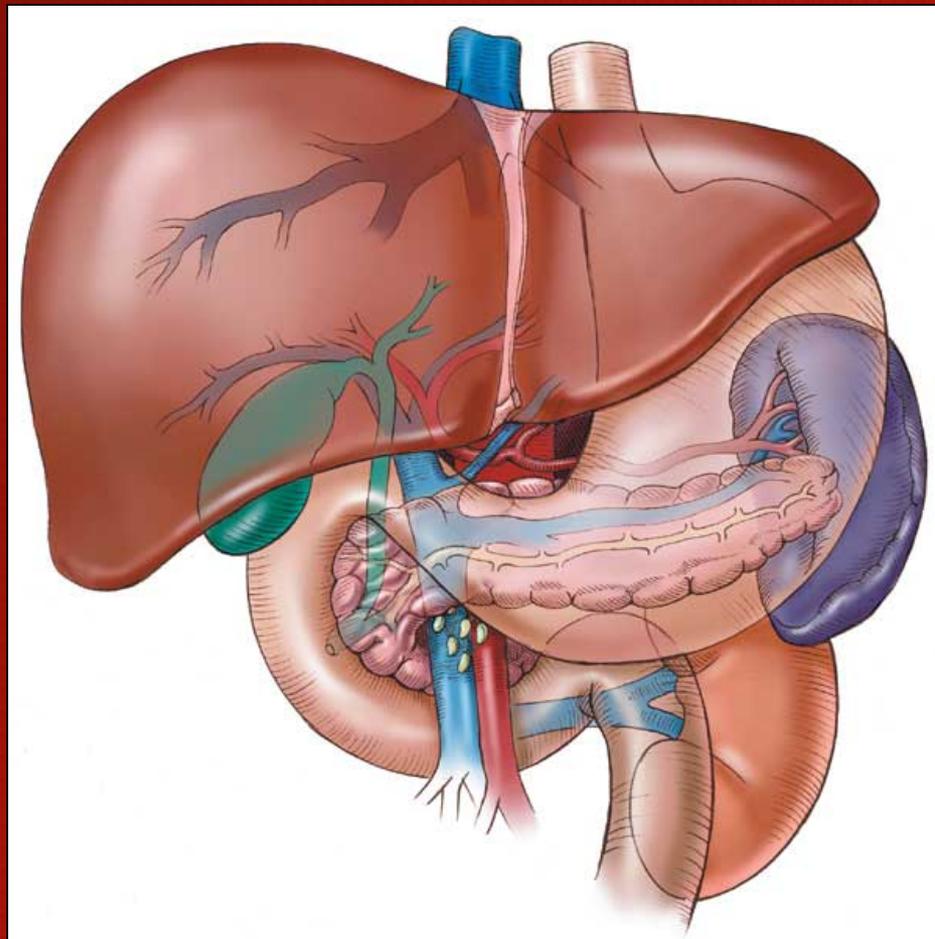
- Semen
- Synovial Fluid
- Vaginal Fluid
- Peritoneal Fluid
- Cerebellar Spinal Fluid
- Pleural Fluid
- Amniotic Fluid
- Saliva with Blood

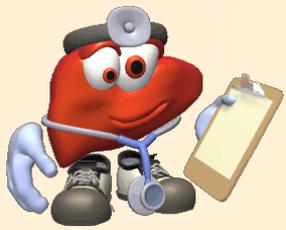


Any fluid that has **BLOOD** in it



# Liver...





# Why Do I Need My Liver...

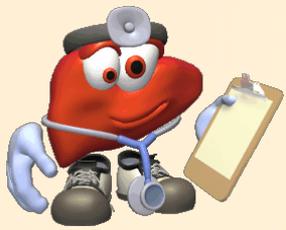
- The liver is located in the upper right side of the abdomen
- It is the largest internal organ in the body
- Functions of the liver include :
  - Digestion
  - Fat and sugar metabolism
  - Synthesizes proteins that help blood clot
  - Detoxifies drugs and toxins
  - As well as 500 other functions as well



# What Causes Hepatitis...

- **Behavior Damage:**
  - Unprotected sex
  - Multiple sex partners
  - Poor personal hygiene
  - "Works" (Drug equipment)
- **Chemical Damage: (Change in function)**
  - Alcohol use
  - Drug use
- **Physical Damage: (Change in anatomy)**
  - Alcohol use
  - Drug use





# Hepatitis Language...

- **Acute infection:**
  - Newly acquired
  - Lasts less than six months
  
- **Chronic infection:**
  - Lasts six months or longer
  - Usually life-long
  
- **Resolved or Cleared:**
  - Body fights off the virus
  - Person builds up antibodies





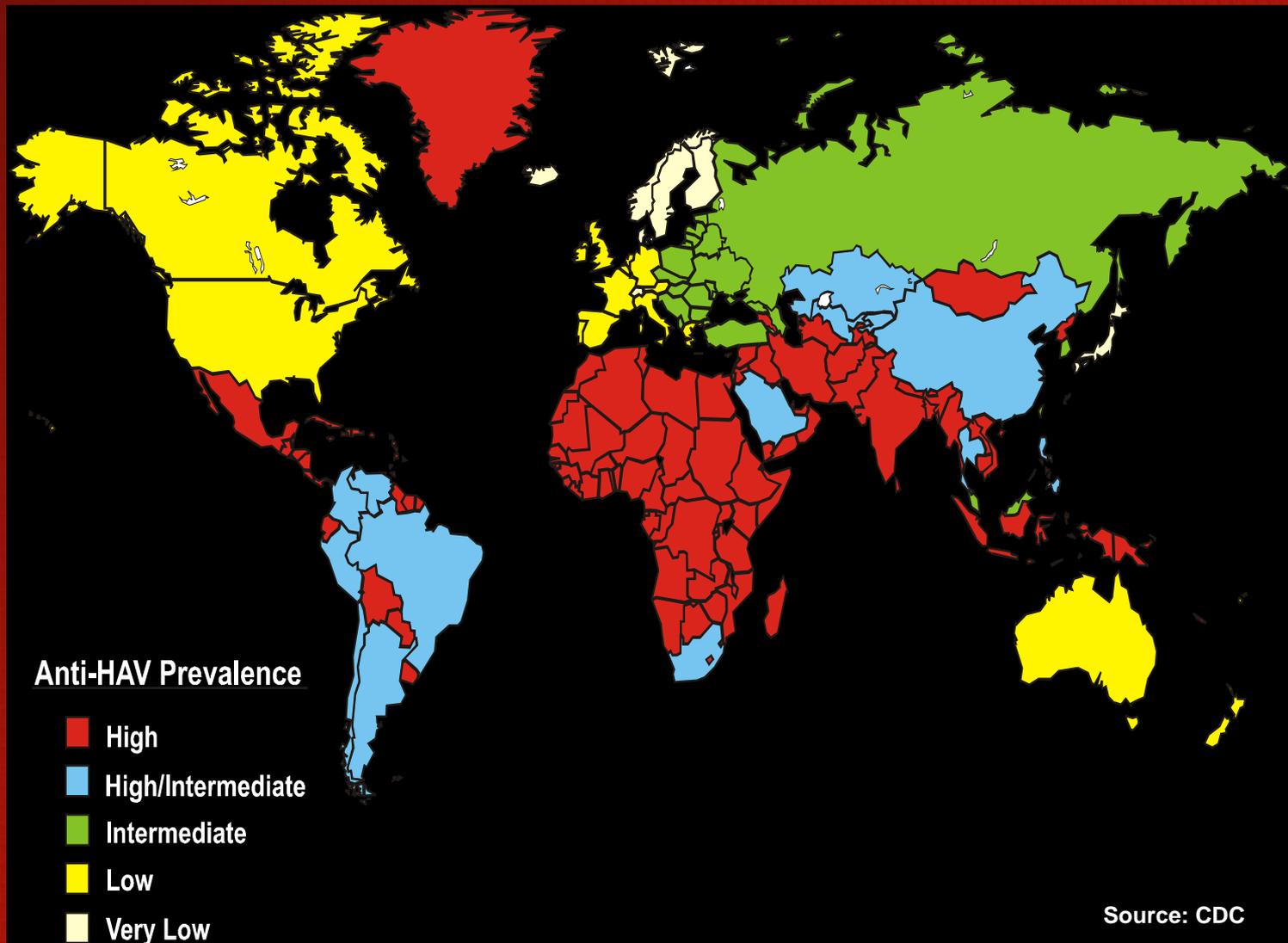
# Hepatitis A...

- A virus that attacks the liver
- Can cause:
  - temporary liver inflammation
  - rare cases, could cause liver failure
- 30% of people in the United States have evidence of past infection
- From 1995-2006, Hepatitis A has declined by 90% to the lowest rate ever recorded (CDC)
- Hepatitis A is transmitted by oral-fecal route





# GEOGRAPHIC DISTRIBUTION OF HEPATITIS A VIRUS INFECTION





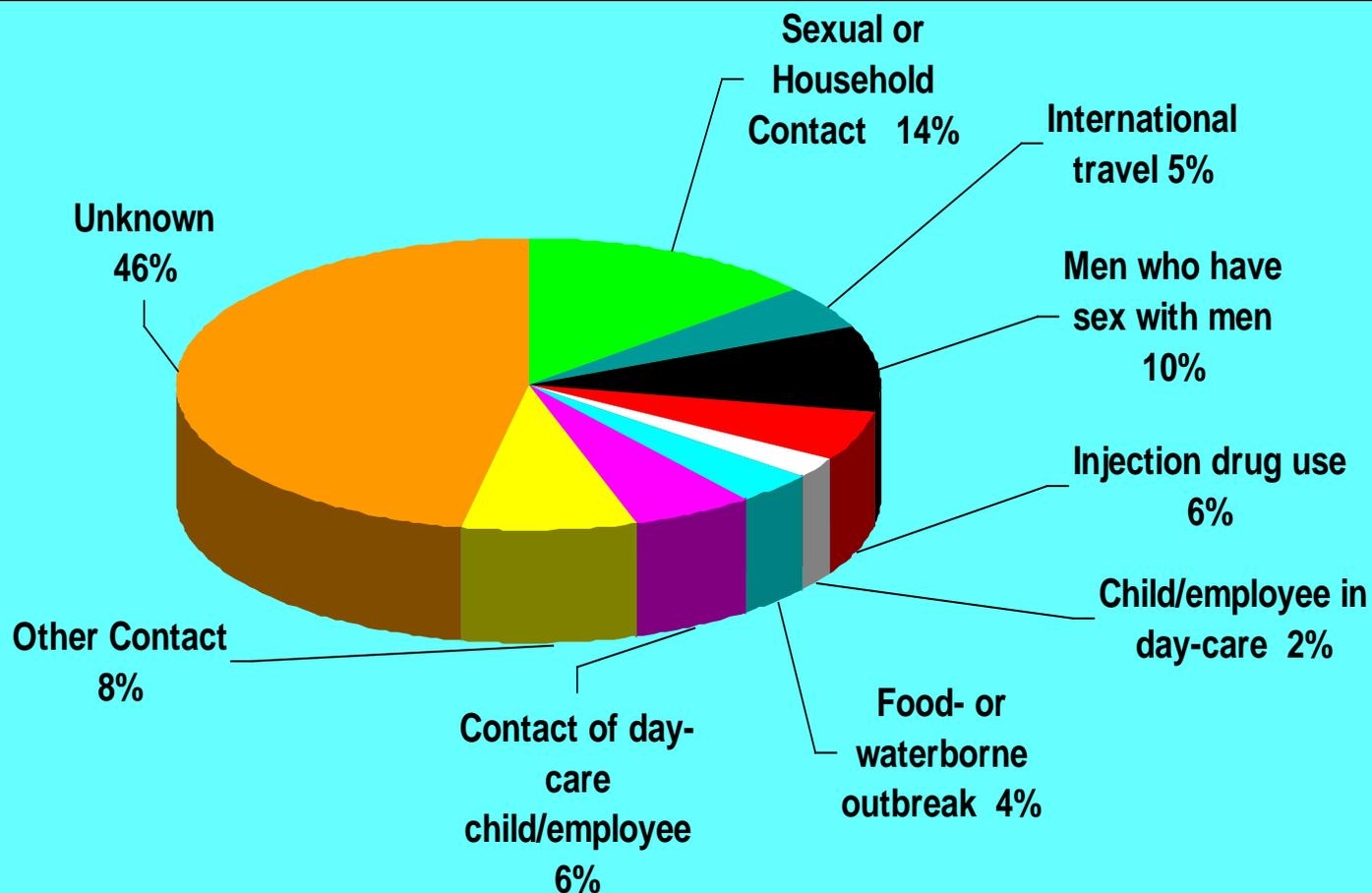
# Risk Groups For Hepatitis A...

- Multiple Sex Partners
- Household Contacts
- Travelers
- Eating Raw or Uncooked Shellfish
- Poor Personal Hygiene
- People Who Use and Abuse Drugs
- Men who have sex with Men
- Drug Equipment
- Young children





# RISK FACTORS ASSOCIATED WITH REPORTED HEPATITIS A, 1990-2000, UNITED STATES



Source: NNDSS/VHSP



# Signs and Symptoms...

- Jaundice
- Fatigue
- Abdominal Pain
- Vomiting
- Dark urine
- Loss of Appetite
- Nausea
- Joint Pain





# Immune System...

- People infected with Hepatitis A will be able to “clear” the virus from the body
- After the virus has “cleared” the person will have antibodies to Hepatitis A





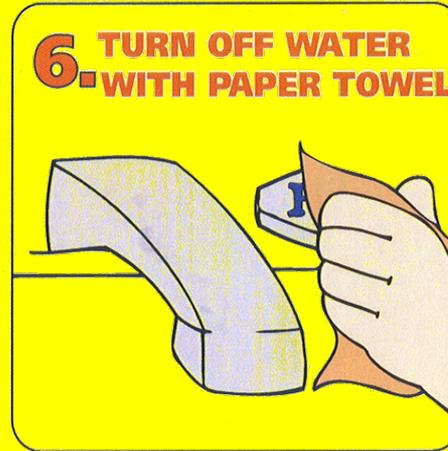
# Hepatitis A Prevention...

- Getting Hepatitis A vaccine
- Using a latex condom and dental dams correctly when having sex
- Washing hands after using the bathroom
- Washing ALL fruits and vegetables before eating
- Wash hands after cleaning the bathroom
- Good hand hygiene





# Hand Washing...

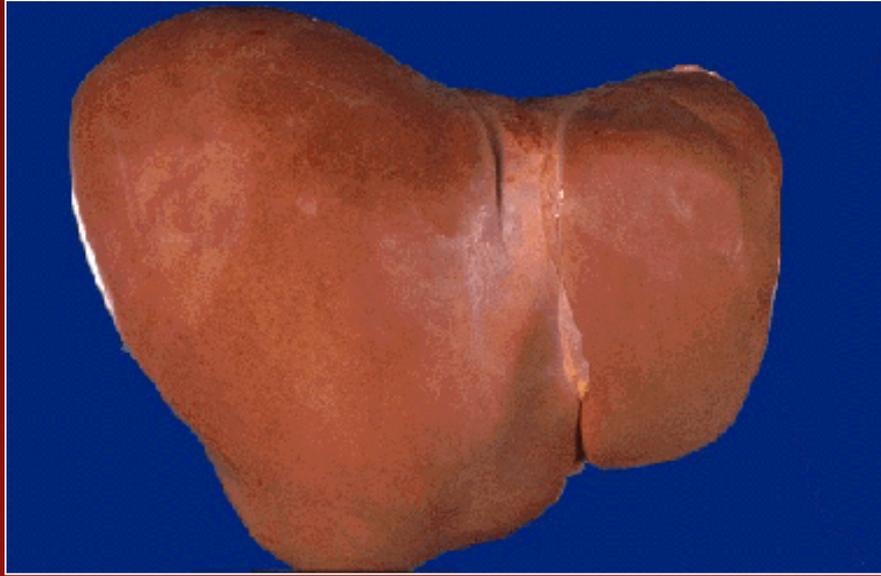




# Hepatitis B...

**Most Common  
Bloodborne  
Infection**

- A virus that attacks the liver
- Can cause:
  - cirrhosis (scarring) of the liver
  - life long infections
  - liver cancer
  - liver failure
  - death
- 350 million people worldwide are chronically infected with Hepatitis B
- 150,000 or more people in the U.S. are newly infected with Hepatitis B each year and 1-1.5 million are chronically infected

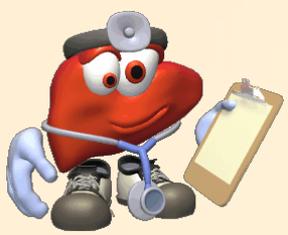


**Healthy**

**Sick**



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# Hepatitis B...



Source: CDC



# Risk Groups...

- Multiple Sex Partners
- Injection Drug Users
- First Responders
- Tattoos & Piercing
- Incarcerated
- Dialysis
- Infants born to mothers with Hepatitis B
- Sharing Toothbrushes, Nail Clippers & Earrings
- Men who have sex with Men
- Drug Equipment
- Household Contacts
- Hemophilia
- People who Bite



# Immune System...

- The majority of people infected with Hepatitis B will be able to “clear” the virus from the body
- 10% of people **can not** “cleared” the virus, they will become chronically infected with Hepatitis B





# Signs and Symptoms...

- Jaundice
- Fatigue
- Abdominal Pain
- Vomiting
- Dark urine
- Loss of Appetite
- Nausea
- Joint Pain





# Hepatitis B Vaccine...

- You **CAN NOT** GET Hep. B. from the Vaccine
- **EVERYONE AT RISK NEEDS TO HAVE THE VACCINE**
- Vaccine is given in three shots over a six months time frame
- After first injection, immunity starts to develop
- One of the most effective ways to prevent Hep. B.





# Hepatitis B Prevention...

- **Getting Hepatitis B vaccine**
- **Using a latex condom and dental dam correctly when having sex**
- **Giving immune globulin to infants born to mothers who have Hepatitis B**
- **Covering open wounds**





# Hepatitis B Prevention...

- Do not do drugs or share drug equipment
- Do not share personal items such as razors, toothbrushes and clippers
- Think before getting a tattoo or body piercing
- Use universal precautions





# Hepatitis C...

- **80% of people have no signs or symptoms**
- **Occurs when blood from an infected person enters the body of a person who is not infected (protect your skin)**
- **Leading cause of all liver disease around the world (WHO)**
- **3 to 4 million persons are newly infected each year (WHO)**
- **WHO estimates that about 170 million people, 3% of the world's population, are infected with HCV and are at risk of developing liver cirrhosis and/or liver cancer.**



# Hepatitis C Liver...





# Risk Groups...

- Multiple Sex Partners
- Injection Drug Users
- First Responders
- Mom to Infant
- Incarcerated
- Dialysis
- Shared Toothbrushes, Nail Clippers & Earrings
- Men who have sex with Men
- Drug Equipment
- Household Contacts
- Tattoos & Piercing
- People who Bite
- Intranasal Cocaine Users





# Signs & Symptoms of Hepatitis C...

- Fatigue
- Nausea
- Jaundice
- Liver pain
- Lack of Appetite
- Vomiting
- Muscle/Joint pain
- Dark urine





# Immune System...

- The majority of people infected with Hepatitis C will be able to “clear” the virus from the body
- 10% -25% of people **can not** “clear” the virus they will become Chronically Infected with Hepatitis C





# Hepatitis C Prevention...

- Use new drug equipment
- Use a latex condom and dental dam correctly when having sex
- Cover open wounds





# Hepatitis C Prevention...

- Use universal precautions
- Do not share personal items such as razors, toothbrushes and clippers
- Think before getting a tattoo or body piercing





# Co-Infection...

- Person is infected with both HIV and Hepatitis C
- CDC estimates that 3,000,000 people are co-infected in the U.S.
- 50%-90% of intravenous drug users (IDU) are infected with Hepatitis C and HIV (CDC)
- A person who is co-infected may develop liver damage faster





# Remember...

- If it is wet and **NOT YOURS**  
**DON'T** touch it without **GLOVES!**





# Resources...

American Liver Foundation  
[www.liverfoundation.org](http://www.liverfoundation.org)

Center For Disease Control  
[www.cdc.gov](http://www.cdc.gov)

HCV Advocate  
[www.hcvadvocate.org](http://www.hcvadvocate.org)

Hepatitis Foundation  
[www.hepfi.org](http://www.hepfi.org)

Indiana State Department of Health  
[www.in.gov/isdh](http://www.in.gov/isdh)

