

Do You Know Your ABCs?

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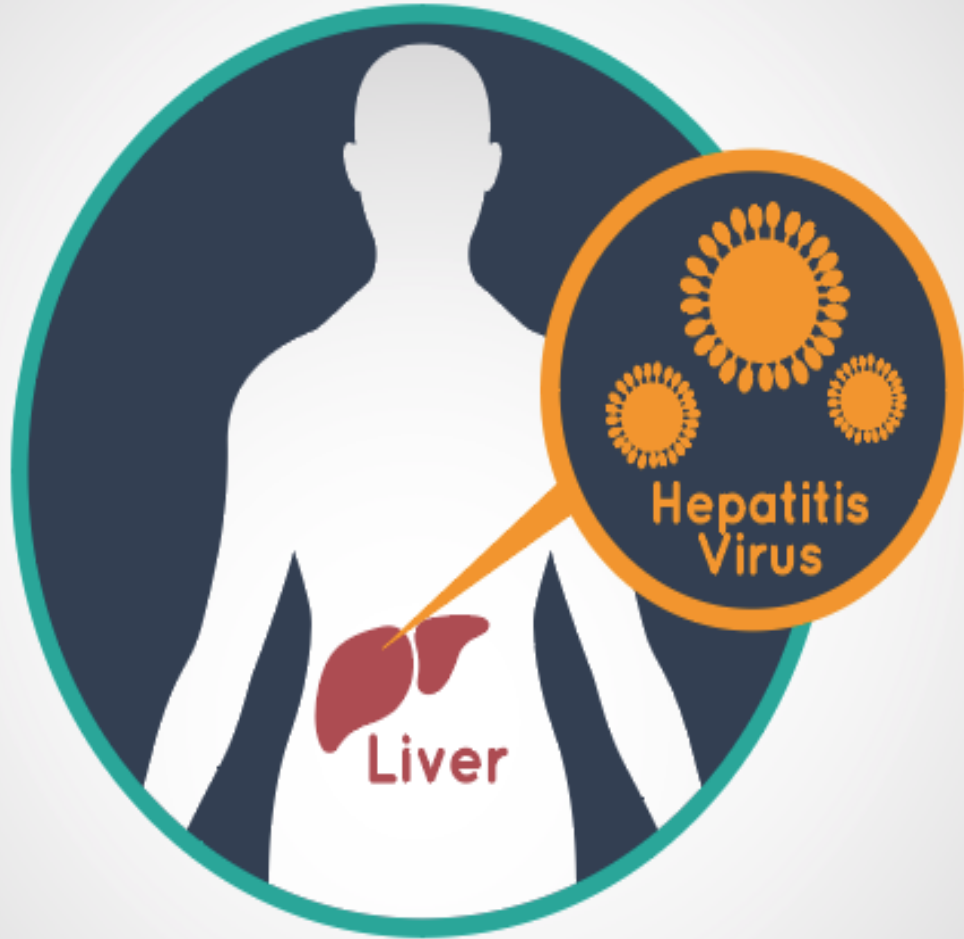
Health & Human Services



MAY

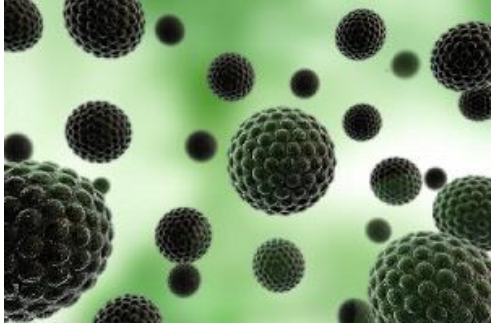
**HEPATITIS
AWARENESS MONTH**

WHAT IS HEPATITIS?



- Inflammation of the Liver
 - Liver: processes nutrients, filters the blood, and fights infections.
 - Due to alcohol, toxins, some medications, etc.
- Most Common Viral Hepatitis In U.S.: A, B & C

Hepatitis: Also Known As



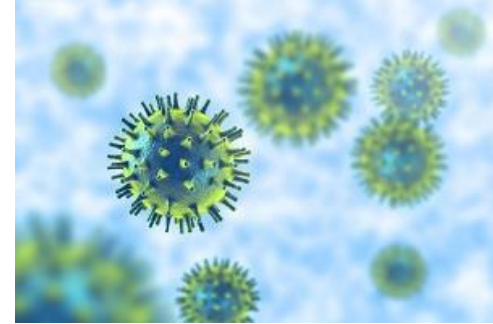
Hepatitis A

Infectious
Hepatitis



Hepatitis B

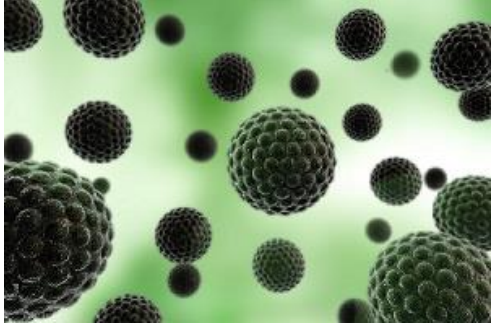
Serum
Hepatitis



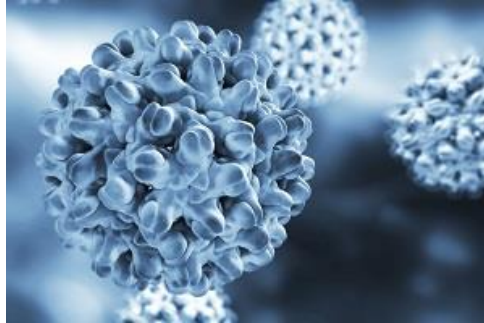
Hepatitis C

Hepatitis
Non-A
Non-B

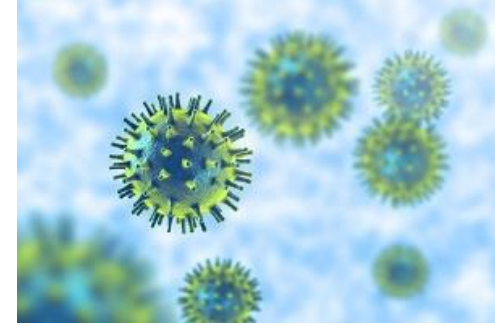
Which Hepatitis Virus was Discovered First?



Hepatitis A
1979



Hepatitis B
1965



Hepatitis C
1989

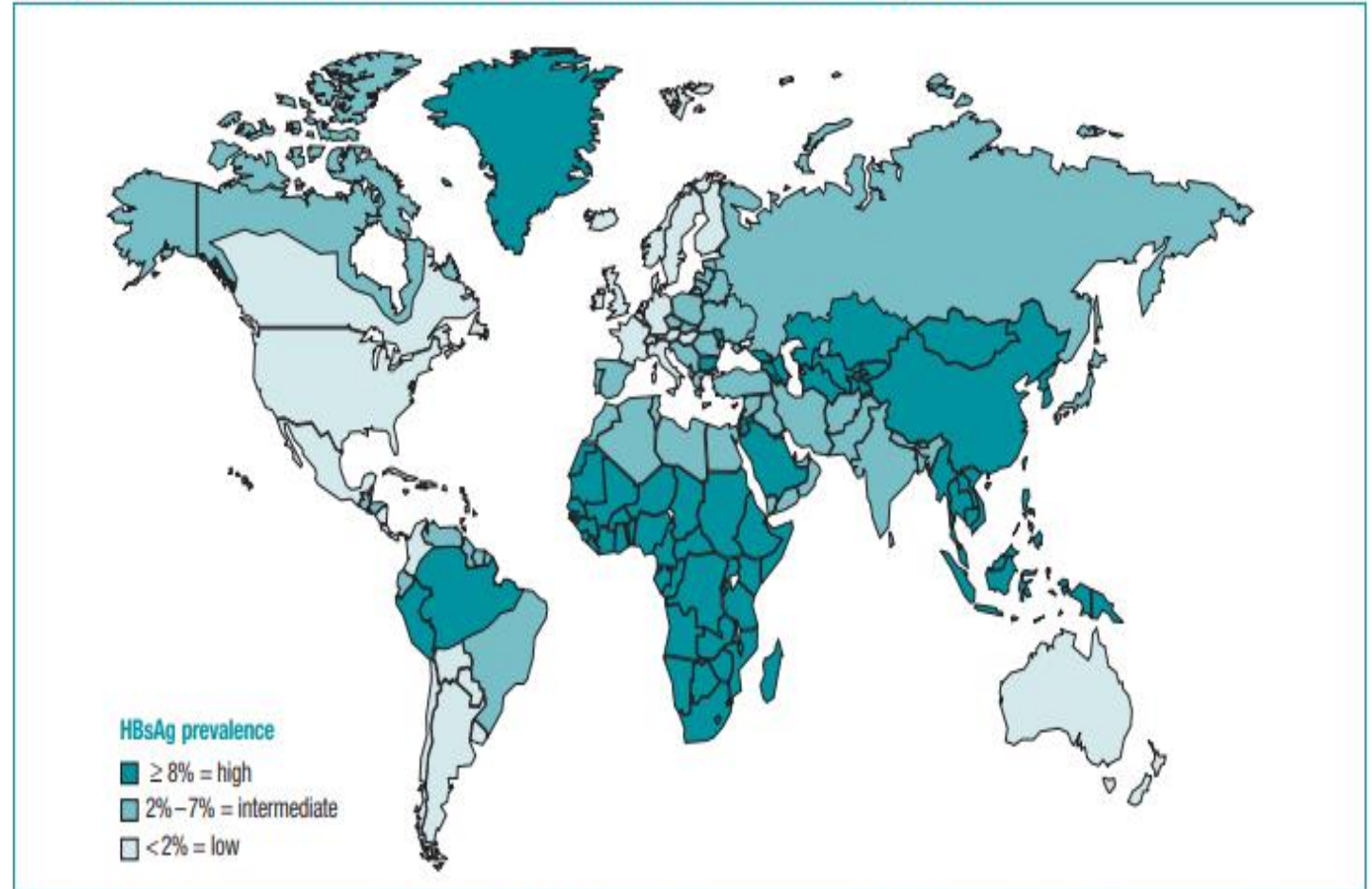


**Millions of Americans
are living with
viral hepatitis.
Many don't know it.**

HEPATITIS B IS PREVALENT ACROSS THE WORLD.

- An estimated 257 million people are living with hepatitis B virus infection.
 - > 6% Population Prevalence in Western Pacific and African Region
- In North Dakota, the majority of hepatitis B cases occur in foreign born individuals.

Geographic Distribution of Chronic HBV Infection — Worldwide, 2006*

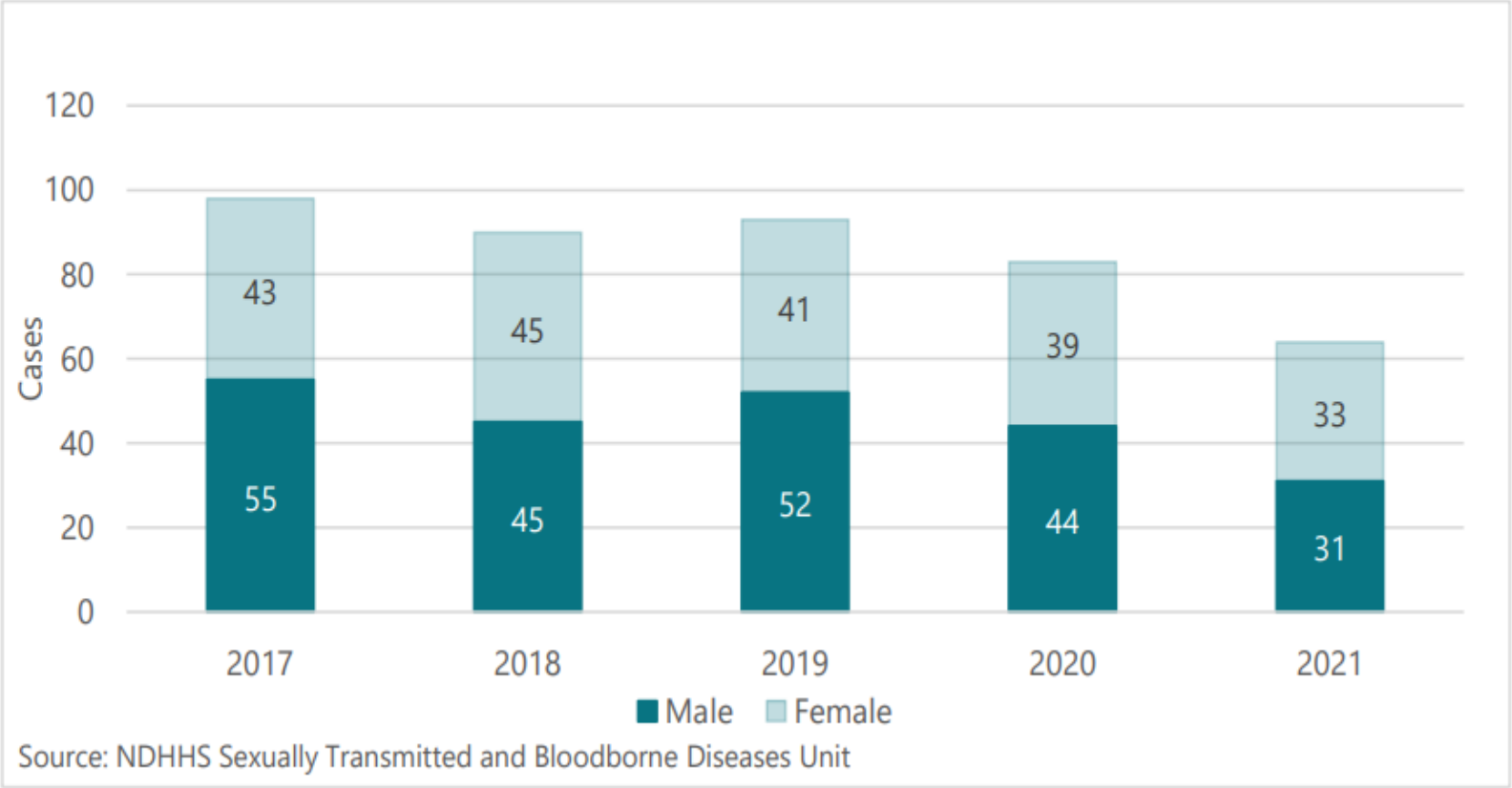


* For multiple countries, estimates of prevalence of hepatitis B surface antigen (HBsAg), a marker of chronic HBV infection, are based on limited data and might not reflect current prevalence in countries that have implemented childhood hepatitis B vaccination. In addition, HBsAg prevalence might vary within countries by subpopulation and locality.

Source: CDC. Travellers' Health; Yellow Book. <http://www.cdc.gov/travel/yellowbookch4-HepB.aspx>.

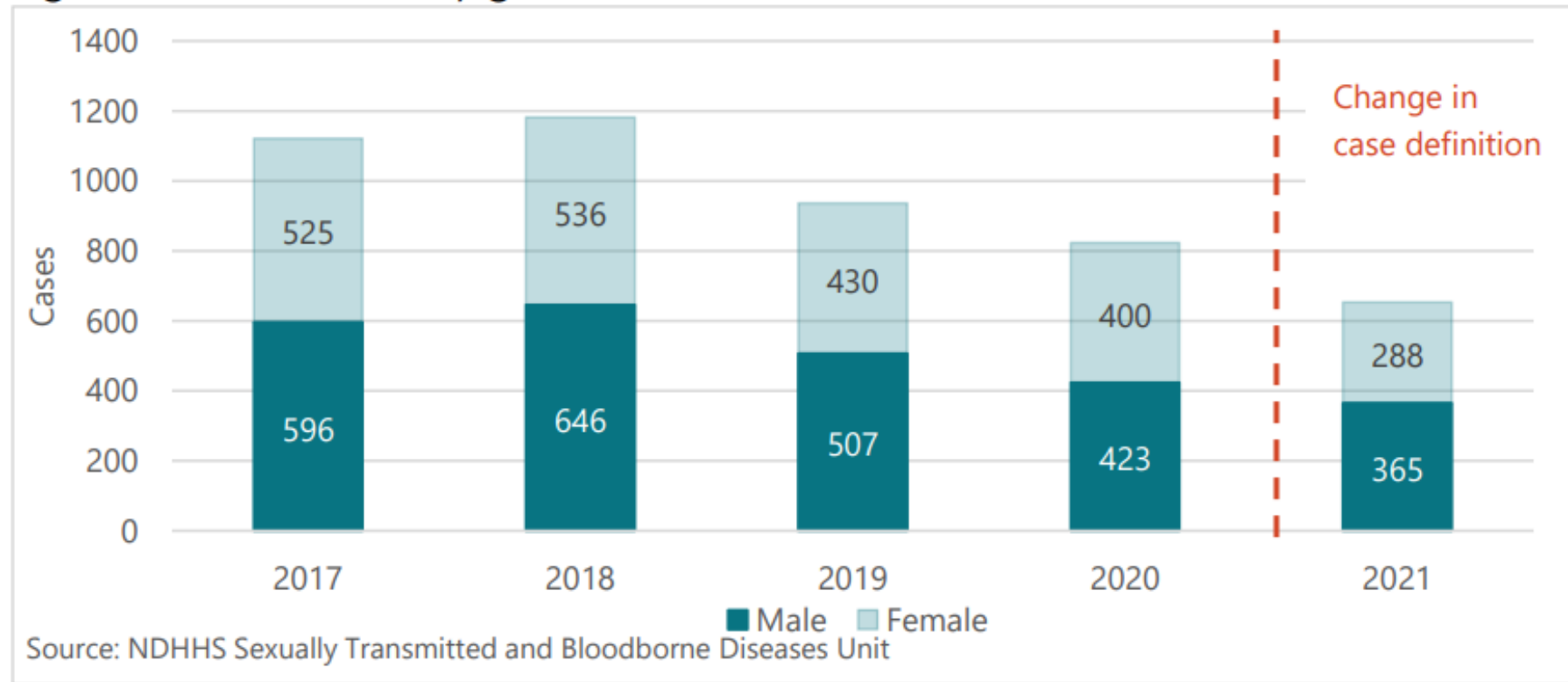
Hepatitis B Morbidity is Declining in ND Over the Past 5 Years.

Figure 27. HBV cases by gender in North Dakota, 2017-2021

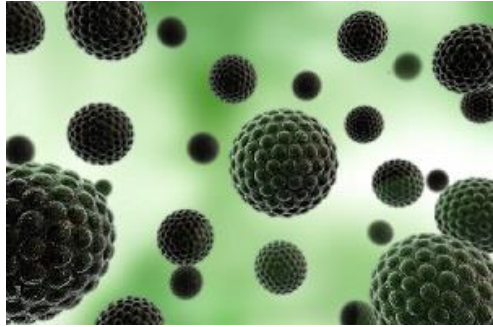


There were 653 reports of positive HCV lab results.

Figure 32. HCV cases by gender in North Dakota, 2017-2021



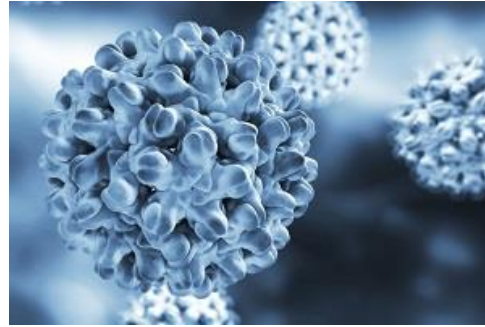
Varying Routes of Transmission



Hepatitis A

Fecal-Oral

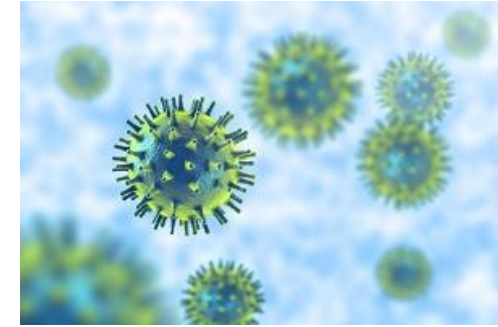
- Close person-to-person contact with an infected person
- Sexual Contact with an infected person
- Ingestion of contaminated food or water



Hepatitis B

Percutaneous, mucosal, or nonintact skin exposure to infectious blood, semen and/or other body fluids

- Birth to infected pregnant person
- Sexual contact with infectious person
- Sharing needles, syringes and other equipment to inject drugs

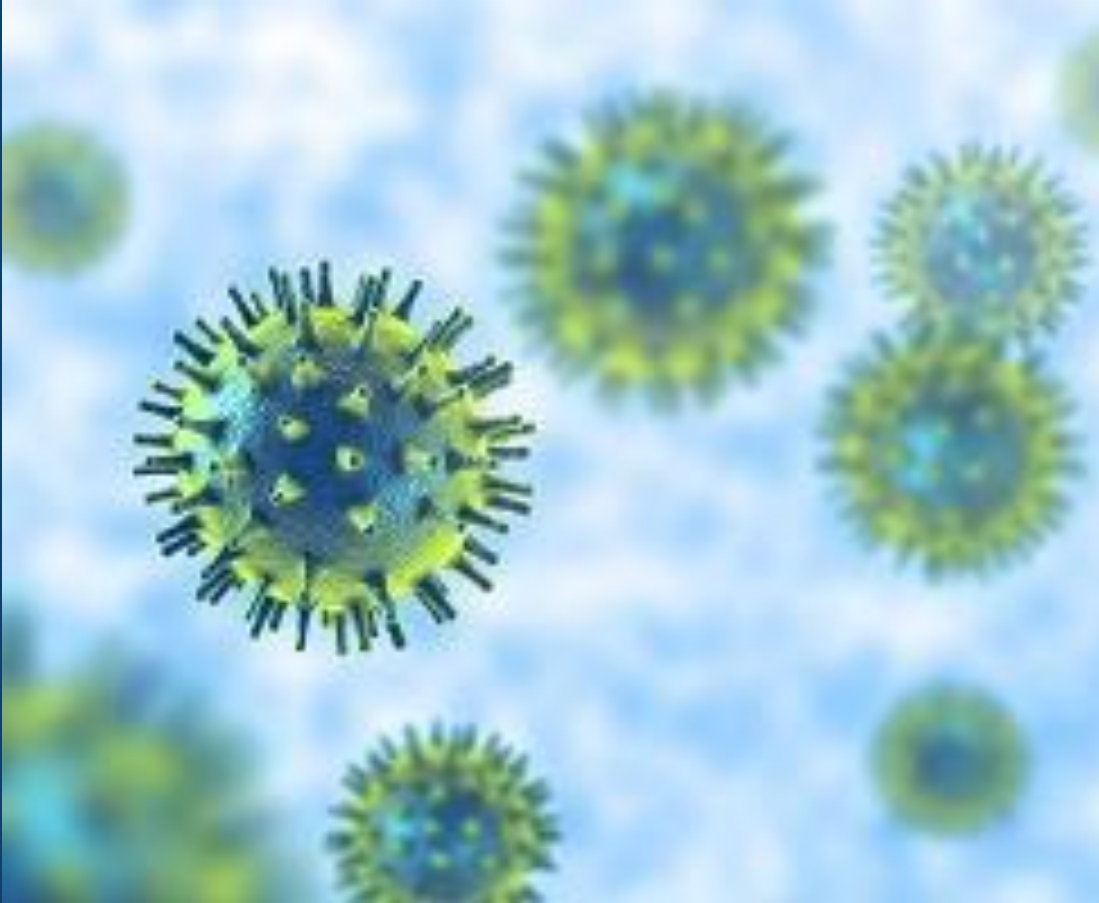


Hepatitis C

Direct percutaneous exposure to infectious blood

- Sharing needles, syringes and other equipment to inject drugs

Incubation Period Varies Between Hepatitis Viruses.



- **Hepatitis A**
 - 15 – 50 Days
 - Average: 28 Days
- **Hepatitis B**
 - 60 – 150 Days
 - Average: 90 Days
- **Hepatitis C**
 - 14 – 182 Days
 - Average: 14 – 84 Days

Symptoms Are Similar for Viral Hepatitis.



- Jaundice
- Fever
- Fatigue
- Loss of Appetite
- Nausea
- Vomiting
- Abdominal Pain
- Joint Pain
- Dark Urine
- Clay-Colored Stool

- **Hepatitis A**

- More than 70% older children and adults have jaundice

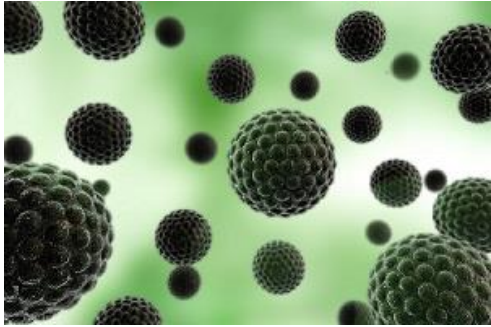
- **Hepatitis B**

- 30% – 50% >5 yrs have symptoms

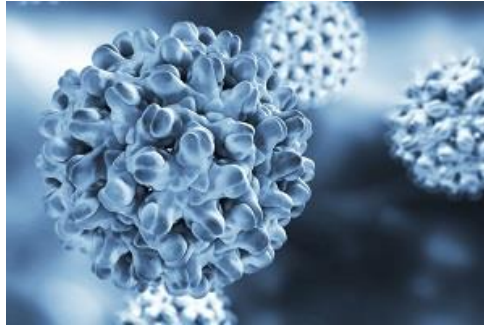
- **Hepatitis C**

- 20% - 30% of people might have jaundice

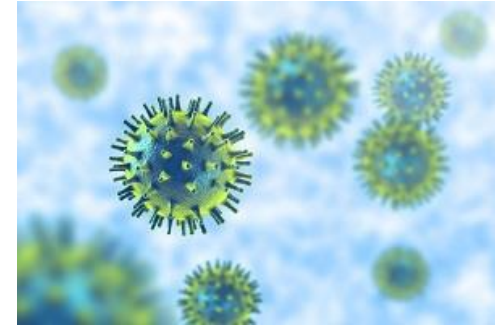
Acute vs. Chronic Hepatitis



Hepatitis A
Only Acute



Hepatitis B
**90% Infants Infected
Become Chronic**
**5% of Adults Infected
Become Chronic**



Hepatitis C
**Most develop
into Chronic
Infections**

Hepatitis B & C Have Universal Screening Recommendations.



- Hepatitis A Screening – Based on Symptoms & Risk History
- **Hepatitis B :New Recommendation in March 2023**
 - Screen all adults aged 18 years and older at least once in their lifetime using a triple panel test
- Hepatitis C – New Recommendation in April 2020
 - Hepatitis C screening at least once in a lifetime for all adults aged ≥ 18 years

HBsAg anti-HBc anti-HBs	negative negative negative	Susceptible
HBsAg anti-HBc anti-HBs	negative positive positive	Immune due to natural infection
HBsAg anti-HBc anti-HBs	negative negative positive	Immune due to hepatitis B vaccination
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive positive negative	Acutely infected
HBsAg anti-HBc IgM anti-HBc anti-HBs	positive positive negative negative	Chronically infected

Interpretation of Hepatitis B Serologic Test Results

HEPATITIS B SEROLOGY
RESOURCES:
[WWW.CDC.GOV/HEPATITIS/HB
V/PROFRESOURCESB.HTM](http://WWW.CDC.GOV/HEPATITIS/HBV/PROFRESOURCESB.HTM)

Hepatitis C Test Interpretation.

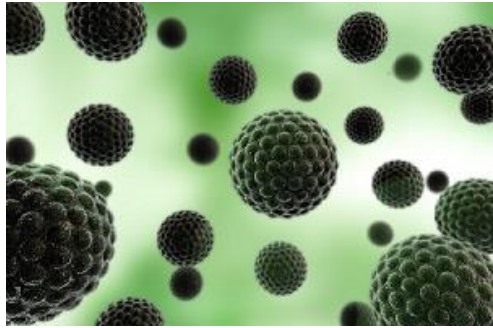
TEST OUTCOME	INTERPRETATION	FURTHER ACTIONS
HCV antibody nonreactive	No HCV antibody detected	Sample can be reported as nonreactive for HCV antibody. No further action required. If recent exposure in person tested is suspected, test for HCV RNA.*
HCV antibody reactive	Presumptive HCV infection	A repeatedly reactive result is consistent with current HCV infection, or past HCV infection that has resolved, or biologic false positivity for HCV antibody. Test for HCV RNA to identify current infection.
HCV antibody reactive, HCV RNA detected	Current HCV infection	Provide person tested with appropriate counseling and link person tested to care and treatment. [†]
HCV antibody reactive, HCV RNA not detected	No current HCV infection	No further action required in most cases. If distinction between true positivity and biologic false positivity for HCV antibody is desired, and if sample is repeatedly reactive in the initial test, test with another HCV antibody assay. In certain situations, [§] follow up with HCV RNA testing and appropriate counseling.

VIRAL HEPATITIS & PREGNANCY

- **Hepatitis A**
 - Unlikely to have vertical transmission
- **Hepatitis B**
 - 40% infants become HBV- infected if proper post-exposure immunoprophylaxis is not provided.
- **Hepatitis C**
 - 4% - 8% risk of mother to child transmission
 - Breastfeeding does not spread hepatitis C



Only HCV Can Be Cured with Medication.



Hepatitis A

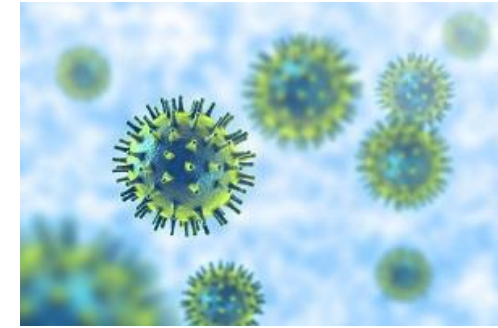
Only Supportive
Therapy



Hepatitis B

Antiviral Drugs
for Chronic
Infections

- 15% - 25% of people with chronic infection develop chronic liver disease, cirrhosis, liver failure or liver cancer



Hepatitis C

More Than 95% of
People Can be
Cured with 8 to 12
Weeks of Oral
Therapy

- 1% - 5% Annual Risk of Hepatocellular carcinoma

FACT

Treatments
can eliminate the
Hepatitis C virus



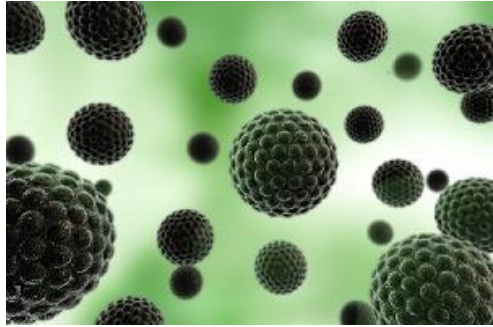
[click here to learn more.](#)



GENOTYPE 1 HAS CURE RATES
ALMOST AT 100%.

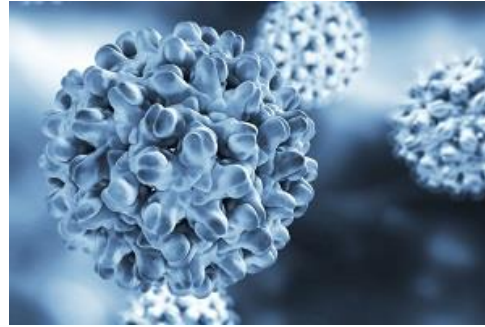
- Treatment Goal: To achieve a **sustained virologic response (SVR)** and delay or stop progress to more serious liver damage
- Treatment can now be as short as 8 weeks

Excited About Vaccination!



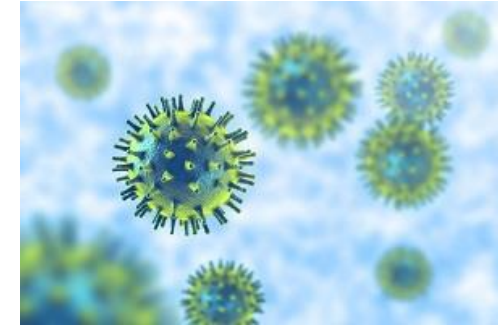
Hepatitis A

- All children 12 – 23 months
 - Travelers
- Men who have sex with men
- Persons who use drugs
 - Persons experiencing homelessness



Hepatitis B

- All Infants, children and adolescents who are 18 years old and younger
- All adults aged 19 through 59 years
- Adults aged 60 years and older with known risk factors



Hepatitis C

There is no vaccine for HCV.

SYRINGE SERVICE PROGRAMS

Scientists, including those at the Centers for Disease Control and Prevention (CDC), have studied SSPs for more than 30 years and found that comprehensive SSPs benefit communities.



SSPs save lives by lowering the likelihood of deaths from overdoses.



Providing testing, counseling, and sterile injection supplies helps prevent outbreaks of other diseases. For example, SSPs are associated with a **50% decline** in the risk of HIV transmission.



Users of SSPs were **three times more likely** to stop injecting drugs.

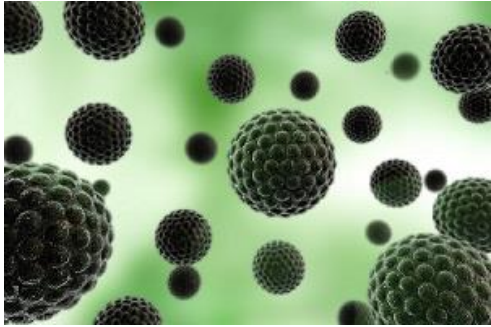


Law enforcement benefits from reduced risk of needlesticks, **no increase in crime**, and the ability to save lives by preventing overdoses.



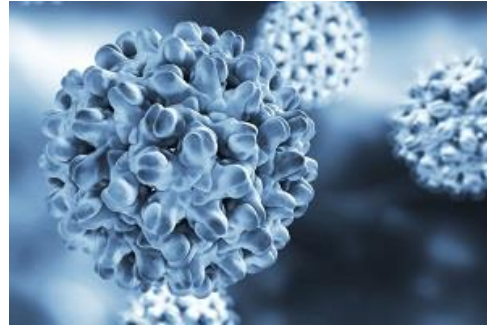
When two similar cities were compared, the one with an SSP had **86% fewer syringes** in places like parks and sidewalks.

What To Do If You Are Exposed?



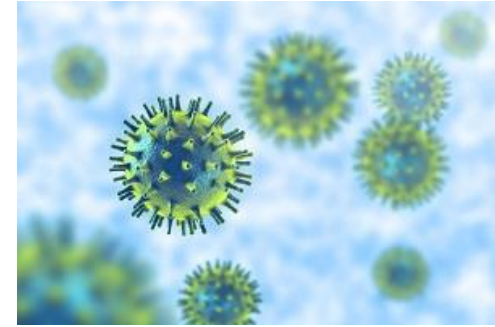
Hepatitis A

- **Hepatitis A Vaccine within 2 weeks of exposure**
- **Some individuals are recommended to have immune globulin**



Hepatitis B

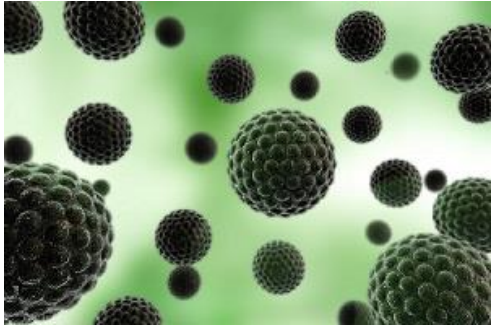
- **Utilize a combination of HBIG and Hepatitis B Vaccine depending status of source and immune response of individual**



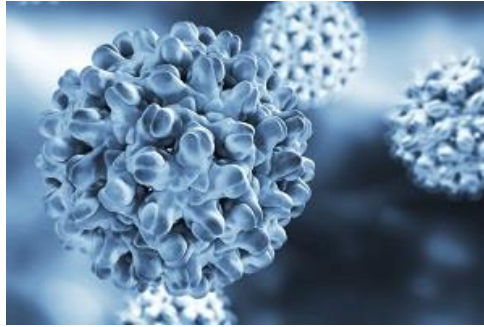
Hepatitis C

- **No PEP Available**

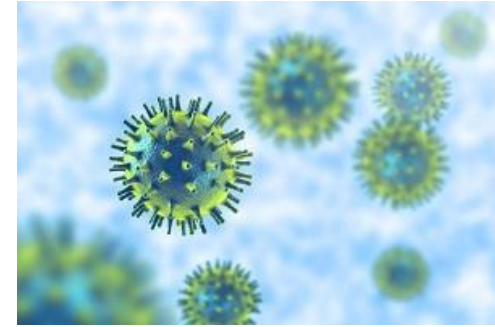
How Long Does Viral Hepatitis Live Outside the Body?



Hepatitis A
Months



Hepatitis B
At Least 7 Days



Hepatitis C
Household and clinic surfaces for up to 6 weeks at room temperature. In open air, it can survive for at least 4 days.

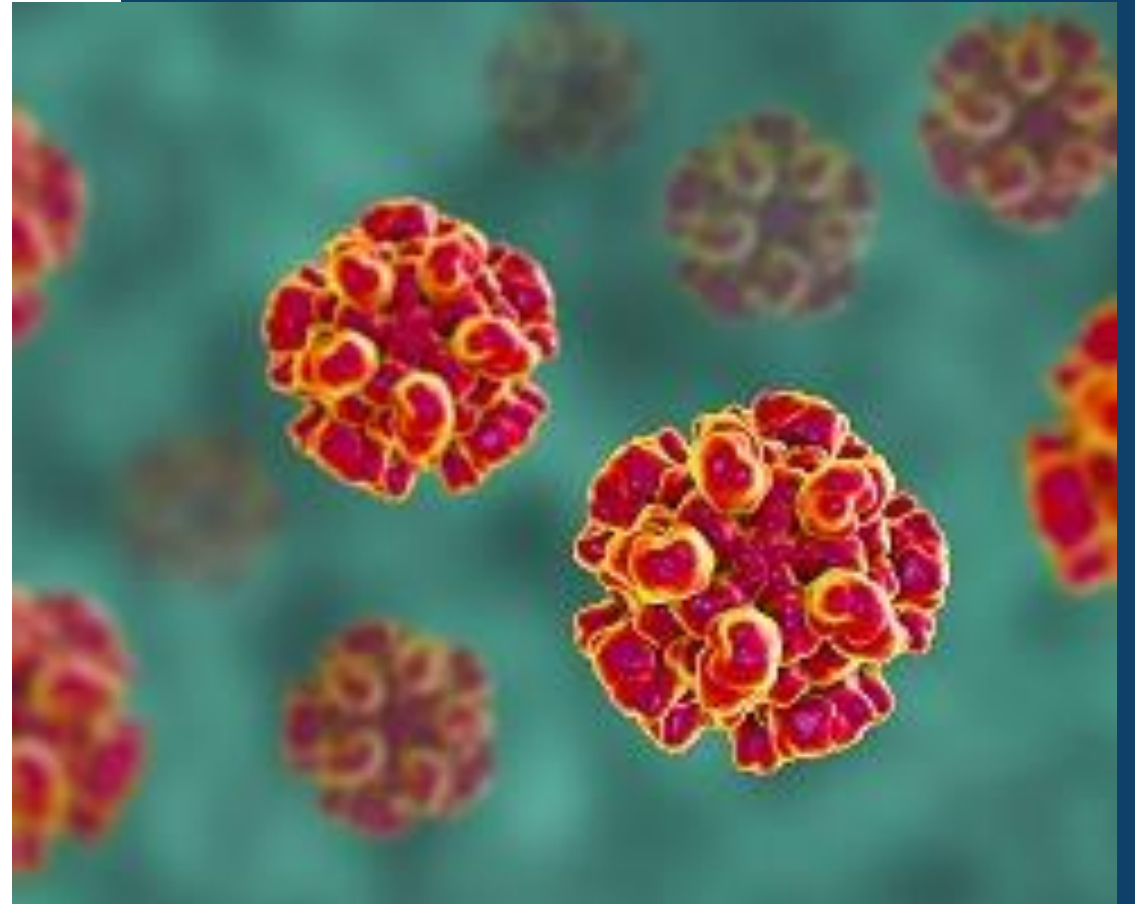
Hepatitis D

- Only Occurs in Individuals Infected with Hepatitis B
- Blood and Other Body Fluid Transmission
- Acute and Chronic
- Most common in Eastern Europe, Southern Europe, the Mediterranean region, the Middle East, West and Central Africa, East Asia, and the Amazon Basin in South America.



Hepatitis E

- Found in stool of infected person
- Drinking contaminated water or consuming contaminated foods
- Hepatitis E is common in many parts of the developing world where sanitation is poor.



Important Facts About Hepatitis A, B and C.

- All can be transmitted without the presence of symptoms.
- It is sometimes not clear to patients which form of hepatitis that they have or had.
- Hepatitis C has curative therapies.
- Hepatitis A and B are vaccine preventable.
- Hepatitis B and C have universal screening recommendations.
- Hepatitis Testing Can Be Challenging to Interpret.

Sexually Transmitted & Bloodborne Diseases Division

VIRAL HEPATITIS NATIONAL STRATEGIC PLAN

OVERARCHING GOAL:

**Elimination
by 2030**

“The United States will be a place where new viral hepatitis infections are prevented, every person knows their status, and every person with viral hepatitis has high-quality health care and treatment and lives free from stigma and discrimination. This vision includes all people, regardless of age, sex, gender identity, sexual orientation, race, ethnicity, religion, disability, geographic location, or socioeconomic circumstance.”

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