



AIDS RESOURCE CENTRE
OKANAGAN & REGION

Hepatitis C 101

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ABC

Hepatitis Definitions

H **HEPAT** = Liver; **ITIS** = inflammation

A-G+ Different forms of hepatitis
Hepatitis A, Hepatitis B, Hepatitis C, D, E, F, G + +

V **Virus:**

- **Tiny infectious organisms.**
- **Made up of genetic material (DNA) and proteins.**
- **Need host cells to reproduce themselves.**
- **HCV is 1 billion times smaller than a human cell.**

A

Hepatitis A

- Jaundice, Fatigue, Abdominal pain, Loss of Appetite, Diarrhea Intermittent nausea.

TRANSMISSION

- Fecal-oral, Food, Waterborne

PREVENTION

- Hepatitis A vaccination
- Good hygiene and sanitation

B

Hepatitis B

- Jaundice, Fatigue, Abdominal pain, Loss of Appetite, Vomiting, Intermittent nausea.

TRANSMISSION

- Blood borne, Sexual, Perinatal

PREVENTION

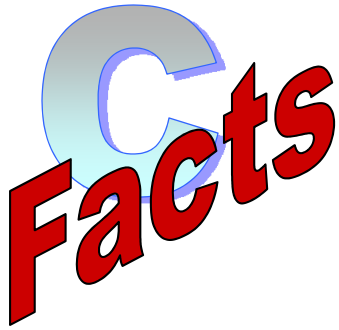
- Hepatitis B vaccination
- Screening of blood /organ/ and tissue donors



Hepatitis C: History

- 1940's – Occurrence of hepatitis after transfusion of prison-sourced blood noted.
- 1950's – Named “**non-A non-B**” hepatitis.
- 1989 – Hep C virus identified. Specific antibody tests for Hep C developed.
- 1990 – Screening of blood supply in Canada introduced.
- 1995 – Hep C virus is first seen using electron microscope.

*Current risk of transmission via blood transfusion is
1 in 500,000 units donated.*



Hepatitis C

- About 20% of infected people will clear the virus, 80% will have a long term (chronic) infection.
- Some infected people will die from liver failure or liver cancer.
- There are at least six strains of Hep C, and more than 90 subtypes of Hep C.
- There is treatment for Hep C, but only about 40% of people who go through treatment appear to clear the virus.
- It is possible to become re-infected with Hep C.

Hepatitis C Statistics

- Estimated 6,400 people in the Okanagan Valley are infected with HCV.
- Approximately 250,000 Canadians (1% of population) including 40,000 people in BC are infected with HCV; around 70% of them are unaware of the infection.
- 88% of injection drug users in Vancouver have HCV.
- In some countries up to 40% of the population is infected.

*There is no vaccine
and no reliable cure for Hepatitis C*



The Liver: a Vital Organ

- acts as power plant and filter system

Everything you eat, drink, breathe and inject is filtered by your liver.

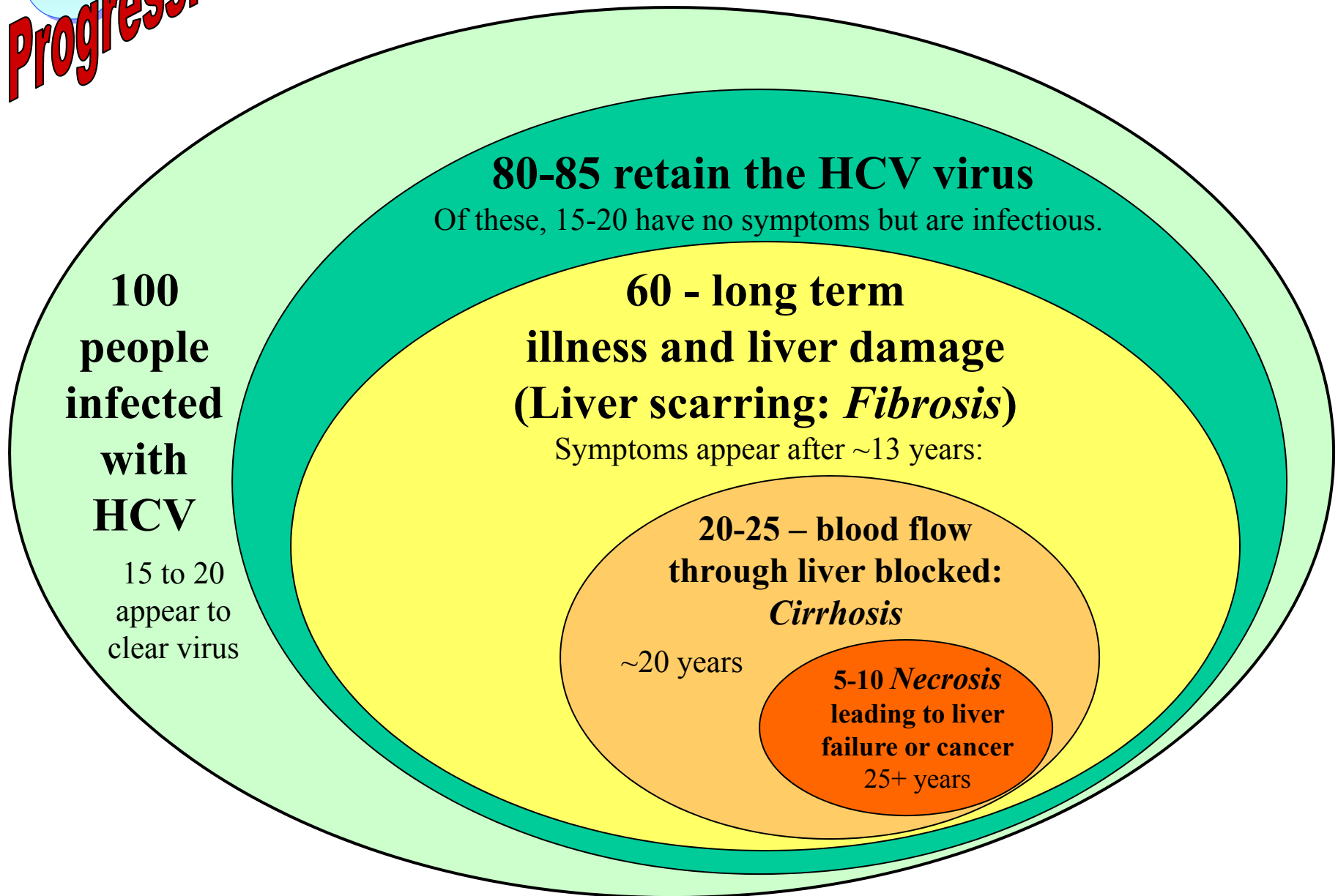


Your liver:

- converts food into substances for repair and growth
- stores energy from sugar and regulates how fat is stored
- processes and removes drugs and other toxins
- makes proteins for blood clotting and fighting infections
- manufactures bile, for absorption of fats and some vitamins.

Your body depends on a healthy liver

HCV Long Term Progression





Acute HCV Infection

- 30% to 40% of those infected notice initial (acute) symptoms
- May appear 6 to 9 weeks after infection
- Flu-like symptoms lasting 2-12 weeks. Fatigue, fever, muscle pain, nausea, vomiting
- Only 10% get jaundice (yellow skin and eyes)

Chronic HCV Infection

Varies from no symptoms, to lack of energy, to complete debility.
Symptoms come and go.

- | | |
|----------------------------------|------------------------------|
| •Fatigue, can be extreme, | •Flu-like symptoms, |
| •Muscle pain, | •Eyesight problems, |
| •Mental confusion & memory loss, | •Appetite problems, |
| •Depression, | •Abdominal swelling, |
| •Jaundice, | •Dark urine and light stool, |
| •Sleep disturbances, | •Itching, |
| •Abdominal pain | •Bruising easily. |



HOW DO I GET HCV?

1. INFECTED BLOOD

+

2. AN ENTRY POINT INTO YOUR
BLOODSTREAM

+

3. AN ACTIVITY

that brings the blood and the entry point together

= RISK OF TRANSMISSION

HCV is 10 to 15 times more infectious than HIV

Risky activities for HCV

HIGH RISK

- Sharing needles
- Sharing drug snorting equipment, crack pipes and other paraphernalia
- Needle stick injuries
- Contact with contaminated blood/ blood products
- Fighting

LOWER RISK

- Sexual intercourse
- Oral sex
- Mother to child transmission
- Tattooing and body piercing, acupuncture, electrolysis, manicures,NO risk if standard precautions followed.
- Sharing personal items e.g. razors, toothbrushes, nail clippers, tweezers.





Harm Reduction for IV Drug Users

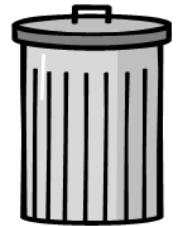
- Always use new needles from needle exchanges/pharmacies.
- Don't share any drug paraphernalia – including needles, syringes, swabs, filters, spoons, tourniquets, water, straws and pipes.
- As an absolute last resort, use “2-2-2” cleaning in 100% bleach. (May not kill HCV, but will protect from HIV)
- Try to stop using drugs if possible – there are people who can help.

“In essence, a policy of harm reduction requires an approach of pragmatism rather than purism--an acceptance that it may sometimes be better to go for a probable silver than a possible gold.” - *John Strang*

Standard / Universal Precautions

MINIMIZE YOUR RISK OF EXPOSURE TO INFECTED BLOOD

- All body fluids must be treated as infectious.
- Hand washing: wash hands with warm soapy water, before and after contact with blood or body fluids.
- Always use latex gloves.
- Use disposable products to clean body fluid spills.
- Remove all soiling by scrubbing.
- Clean surfaces and equipment with bleach solution (1 part bleach : 9 parts water). Soak at least 30 minutes.
- Double-bag contaminated items, tie securely and throw out with regular garbage.
- Handle and dispose of sharps/needles with extreme caution.



Prevention

- ✓ **Always use Standard Precautions**
- ✓ Don't share needles
- ✓ Don't share toothbrushes, razors, or anything that may have blood on it
- ✓ Safer blood supply – screened since 1990
- ✓ Increased public awareness
- ✓ Safer sex – always use condoms
- ✓ Don't share sex toys
- ✓ Avoid tattoos and body piercing
- ✓ Persons with Hep C should not donate blood, semen or body organs



Important

HCV is **NOT** spread by sneezing, kissing, hugging, coughing, food or water, sharing eating utensils or drinking glasses, or casual contact.



NO-ONE should be excluded from work, school, play, child-care or other settings on the basis of their HCV infection status.

C Testing

Testing for HCV

Public Health Unit or your doctor can order an HCV test.

With your consent, a sample of blood is taken and sent to laboratory.

Lab performs an ELISA antibody test on your blood sample

RIBA test to confirm ELISA - also tests for antibodies to HCV.

POSITIVE?

NEGATIVE?

If test is positive: PCR test done to confirm presence of virus.



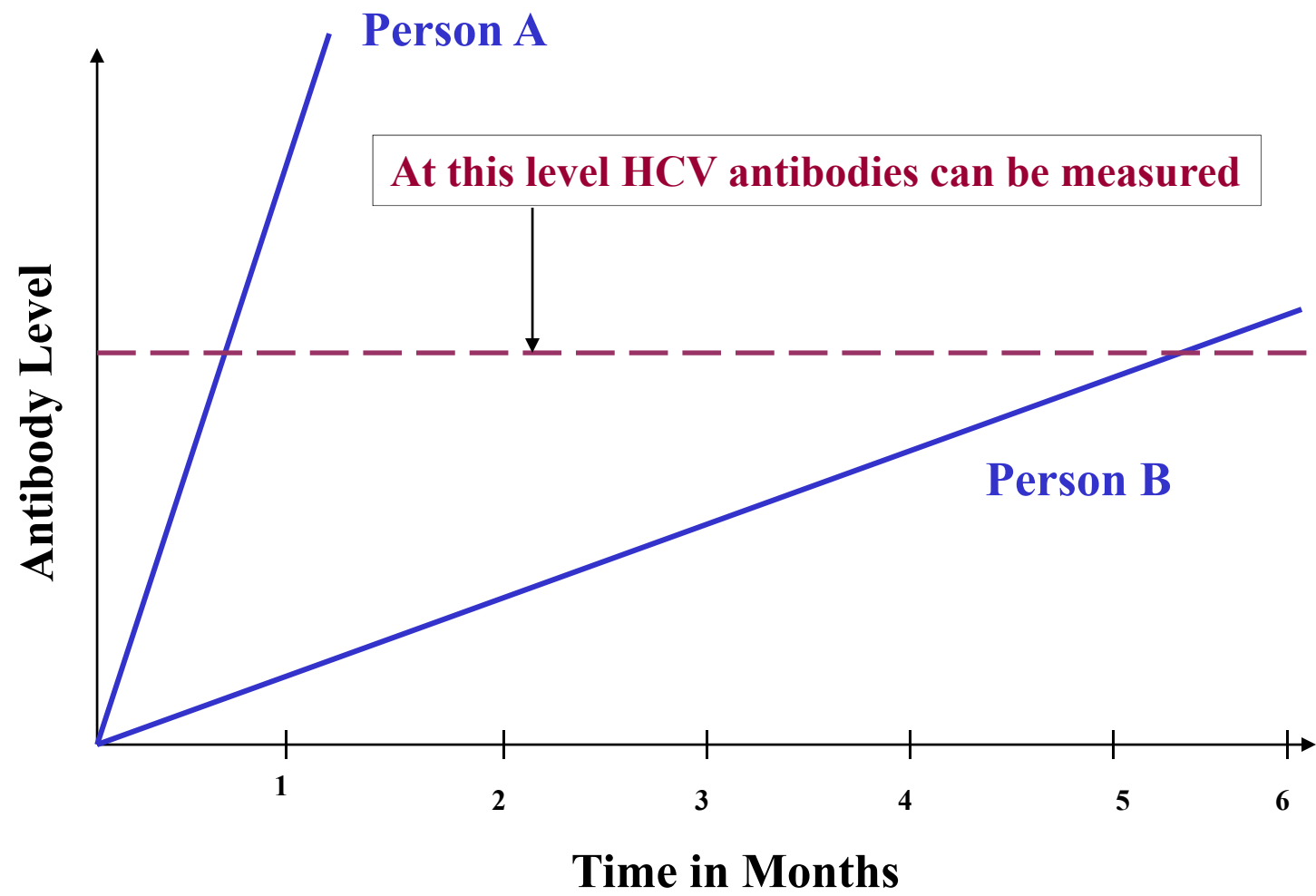
Doctor or Public Health Nurse should tell you in person and give you post test counselling to discuss the WINDOW PERIOD.

Return for further testing after 3 and 6 months if you were exposed.

Liver function test to check for enzymes that escape into blood stream when liver cells are damaged or destroyed.

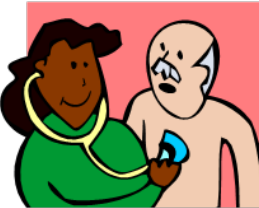
Follow up medical care as needed

The Window Period



Living with HCV

- Eat healthy foods (specific to Hep C) and drink lots of purified water
- Rest
- Exercise in moderation
- Regular doctor visits for monitoring
- Take medications as prescribed
- Freedom from guilt/fear/rejection/abuse
- Solid support system and social life – don't isolate!
- Keep some autonomy
- Avoid stress

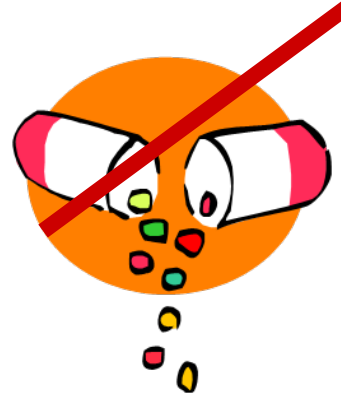


Beware

Living with HCV

DO NOT USE:

- **IRON**
- **NIACIN (vitamin B3)**



NO ALCOHOL!

It stresses your liver.

NO COCAINE!

It speeds up disease progression!

Cautions: (ask your doctor)

Anti-inflammatories, Tylenol, fat-soluble vitamins A, D & E

Treatments

Combination Therapy (*Rebetron/Pegatron*)

- Interferon injections fight infection. Ribavirin targets the Hep C virus (capsules 2x /day)
- New version using “Pegylated” interferon allows for injection once/week and fewer side effects.
- 55% of people treated with Pegatron reach undetectable levels of the virus (genotype 1); in many others it slows disease progression.
- Important to take as prescribed to prevent treatment-resistant strains.

Alternative Therapies

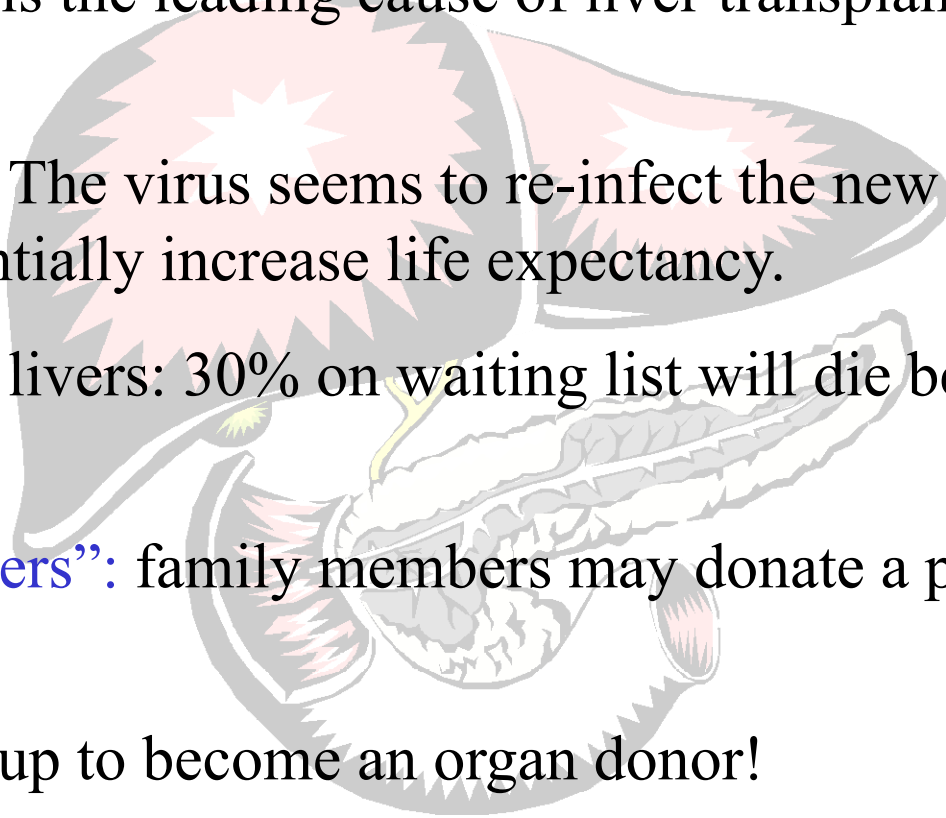


Let your doctor know if you plan to use alternative remedies.

- Chinese Medicine
- Vitamin and mineral supplements (use with care)
- Homeopathy
- Herbal therapies
- Milk Thistle
- Therapeutic touch

Liver Transplants

- Hepatitis C is the leading cause of liver transplants in Canada.
- Not a cure. The virus seems to re-infect the new liver. But it may substantially increase life expectancy.
- Shortage of livers: 30% on waiting list will die before a liver is found.
- “Living Livers”: family members may donate a part of their own liver.
- Please sign up to become an organ donor!



Co-infection

- **Definition:** Infection with more than one infectious agent.
- **Examples:**
 - 1) Infection with more than one strain of HCV
 - 2) HCV and HIV
 - 40% of HIV infected people also have HCV.
 - Hepatitis C progression is much faster in co-infected people.
 - Usual therapy is to stabilize the HIV first.
Caution – some HIV drugs are toxic to the liver.
 - 3) HCV and other Hepatitis viruses

HELP for HEP C

Support Group Listing:

Hepatitis C Society of Canada

1-800-652-HEPC (4372)

www.hepatitiscsociety.com

Information:

Canadian Liver Foundation

1-800-856-7266

www.liver.ca



AIDS Resource Centre

(Information & Speakers)

www.arcok.com

862-2437 or

1-800-616-2437

HepC BC

250-361-4808

www.hepcbc.ca



Be Supportive



- **Show you care.**
- **Share this information.**
- **Stop the spread of hepatitis.**
- **It's your choice.**