

Transmission

The hepatitis C virus is found in blood. Blood containing the virus must enter the bloodstream of another person for transmission to take place. This is called blood-to-blood contact. Even invisible (microscopic) amounts of blood can transmit hepatitis C. This section outlines some of the more common ways of transmitting hepatitis C through blood-to-blood contact.

Understanding how hepatitis C is transmitted is equally important for people who are already hepatitis C positive so they can reduce the chance of:

- being infected with another genotype of hepatitis C;
- being reinfected with the same genotype of hepatitis C; and
- transmitting hepatitis C to another person.

Injecting equipment

Currently in Australia, the greatest risk for the transmission of hepatitis C is through blood-to-blood contact, involving the sharing or re-using of injecting equipment such as needles and syringes. Other injecting equipment, surfaces used for mixing up, disposal containers, hands and puncture sites can become contaminated during the injecting process and also pose a risk of transmission.

Some people who have only injected drugs once or twice in their life have become infected with hepatitis C. The safest way to avoid the transmission of hepatitis C and other blood-borne viruses such as HIV and hepatitis B is not to inject drugs. Some people choose other ways of consuming drugs, such as smoking or swallowing.

If you do inject drugs, there are ways you can reduce your risk of hepatitis C and other infections passed on by blood to blood contact such as HIV and hepatitis B. If you inject drugs always wash your hands, wipe down the preparation area and always inject with:

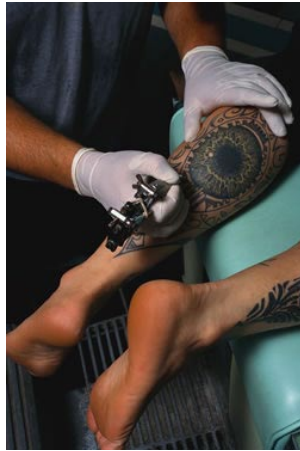
- clean hands (wash your hands thoroughly);
- a clean injecting space;
- a new fit (syringe);
- new sterile water;
- new swabs (at least one to swab your spoon and one to swab your injecting site—remember to swab in one direction only, rubbing back and forth with a swab spreads dirt and germs);
- your own tourniquet—never share;
- new filter;
- a clean spoon; and
- an approved disposal bin (always dispose of your fits in a puncture proof container).

For more information on safer injecting practices please contact your local peer-based user group for copies of the **Guide to Safer Injecting** developed by the Australian Injecting and Illicit Drug Users' League (www.aivl.org.au).

Blood transfusions and blood products

The Australian Red Cross Blood Bank now tests all donated blood and blood product for hepatitis C virus and antibodies. Screening for hepatitis C began in February 1990. Before this time, some people were infected with hepatitis C when they received blood or blood products contaminated with the virus.

Tattoos and body piercing



A small number of people have been infected with hepatitis C through unsterile tattooing or body piercing procedures. Anyone considering a piercing or a tattoo should make sure that their tattoo artist or body-piercer applies infection control procedures, which means using single-use disposable needles, dye tubs, surgical gloves, and so on. You have the right to ask the practitioner about their use of standard infection control procedures and their understanding of why these procedures are important.

If you get a tattoo or piercing in a juvenile detention centre, prison or by a backyard operator your chance of becoming infected with the hepatitis C virus is very high. The equipment is not clean and has nearly always been used on other people before your turn. Don't get a tattoo or piercing in these settings if you can avoid it.

Mother-to-child transmission

Research shows that the risk of transmission to a baby during pregnancy or childbirth is low. The risk is about 6% if you have detectable levels of the virus in your blood, that is, if you have a PCR test that shows the presence of the virus in your blood.¹

Women with very low levels of the virus (where PCR test showed negative for the presence of hepatitis C in the blood) are highly unlikely to transmit hepatitis C to their baby. However, women co-infected with both HIV and hepatitis C have a higher risk of transmitting hepatitis C to their baby.

There are no confirmed reports of hepatitis C transmission from mother to baby by breast milk and the current scientific opinion remains that there is no significant evidence of HCV transmission through breast-feeding. Scientists have found traces of the virus in some breast milk and colostrum (the breast fluid produced by the mother in the first few days of breastfeeding) but not enough to transmit hepatitis C. Damage to the nipples such as cracked and bleeding nipples could pose a possible risk to the baby if blood-to-blood contact occurs through small tears or scratches in or around the baby's mouth. Therefore, it is recommended that women with hepatitis C who have cracked or bleeding nipples should express and discard their breast milk while their nipples are cracked.

Transmission in health care setting

Some people in Australia contracted hepatitis C through unsterile medical injections and other medical procedures in their country of origin. The risk of transmission of hepatitis C through unsterile medical procedures has been virtually eliminated in Australia, since the introduction of standard infection control procedures (Standard Precautions).

Standard Precautions are guidelines for infection control, and assume that all blood and body fluids are contaminated.

¹ Dore GJ, Kaldor JM, McCaughan W. Systematic review of role of polymerase chain reaction in defining infectiousness among people infected with hepatitis C virus. *BMJ* 1997;315:333-7

Some Standard Precautions include:

- using gloves when cleaning up blood spills;
- carefully wiping up any blood spills with a paper towel, and washing the area with soapy water and then, if there is a possibility of bare skin contact, disinfecting the area with household bleach;
- completely covering any cuts or wounds with a waterproof dressing or a band-aid; and
- placing bloodstained tissues, sanitary towels or other bloodstained dressings in a leak-proof plastic bag before disposal.

The complete Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Health Care Setting are available from:

<http://www.health.gov.au/internet/wcms/publishing.nsf/content/icg-guidelines-index.htm>

The risk of acquiring hepatitis C from a needle stick (or sharps) injury in a healthcare setting where the needle (or sharp) was used in a procedure on someone with hepatitis C, ranges from 3% to 10%. Health care and custodial workers are advised to practice standard infection control procedures at all times and should consider getting vaccinated against hepatitis A and B.

Other activities where blood may be involved

Transmission of hepatitis C through sex is unlikely, and hepatitis C is not classified as a sexually transmissible infection (STI). However, where there is a risk of blood-to-blood contact during foreplay or sex, or where there is a risk of the transmission of sexually transmissible infections it is recommended you practice safe sex.

Personal grooming items used for everyday hygiene may present a possible transmission risk if blood is present. To minimise the risk of transmission, it is suggested that people do not share razor blades, tooth brushes (due to the possibility of bleeding gums) and sharp personal grooming aids.

Stepping on a used needle in a public place, such as a street, a park or a beach, is regarded as an unlikely source of transmission.

Finally, remember hepatitis C is spread through blood-to-blood contact. Thus for transmission to take place, blood containing the virus must enter the bloodstream of another person. In the ordinary course of life, hepatitis C is not easily caught, however, it is worth thinking about any instances in which blood-to-blood contact may take place and subsequently take appropriate precautions.

Hepatitis C cannot be caught from sharing hugs, kisses, food, cups, gym equipment, office space or public transport. There is no risk of contracting hepatitis C from a mosquito or other blood-sucking insects.

Preventing the spread of hepatitis C

People with hepatitis C can take simple precautions to minimise the risk of transmitting the virus to others. These involve:

- reducing any opportunity where other people may come in contact with infected blood;
- not sharing injecting equipment;
- not sharing personal toiletry items like toothbrushes, razors, nail clippers or any items able to puncture the skin and draw blood;
- having a first aid kit at hand;
- keeping cuts, abrasions or wounds clean and covered with waterproof dressings;
- cleaning up any blood spills with paper towels and soapy water or undiluted bleach; and
- securing all bloodstained items, such as wound dressings, tampons and sanitary pads in a plastic bag before putting them in a rubbish bin.

For more information

For further information on hepatitis C please contact the national infoline 1300 HEP ABC (1300 437 222). The infoline diverts to information and support lines at your local state or territory hepatitis council.

Some of the information above has been abridged from various resources, these resources include:

Contact (Hepatitis Australia)—can be ordered from your local Hepatitis Council (ph. 1300 437 222) or download PDF from www.hepatitisaustralia.com

Women and Hepatitis C (Hepatitis Australia)—can be ordered from your local Hepatitis Council (ph. 1300 437 222) or download PDF from www.hepatitisaustralia.com

Guide to Safer Injecting (Australian Injecting and Illicit Drug Users' League)—can be ordered or picked up from your local peer based user group. Contact details of user groups are available from www.aivl.org.au

Infection Control Guidelines for the Prevention of Transmission of Infectious Diseases in the Health Care Setting (Australian Government)—can be downloaded from www.health.gov.au