



# Tattooers

# and piercers

**PROTECT YOUR CLIENTS  
AND YOURSELF  
AGAINST HIV AND  
HÉPATITIS B AND C**

Québec 



# Preventive measures

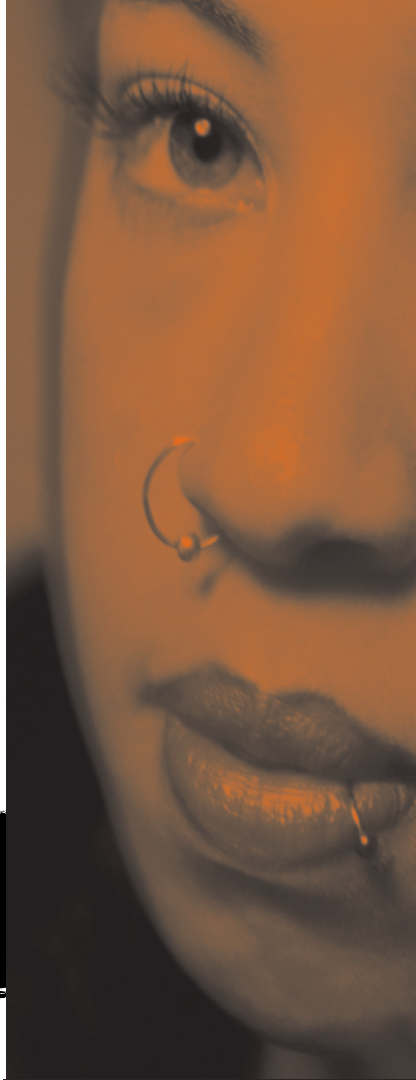
ou are at particular risk from blood-transmitted diseases, like hepatitis B (HBV), hepatitis C (HCV) and HIV (the virus that causes AIDS), because your work can bring you into accidental contact with blood. Your clients are at risk, too, because the same diseases can be transmitted to them if preventive measures are not adequately implemented.

Preventive measures reduce the risk of transmission. The most common measures are handwashing, use of gloves and other protective barriers, use of single-use materials, disinfection and sterilization of surfaces and instruments, and safe handling of instruments.

**Vaccination against hepatitis B is recommended for anyone whose work involves the risk of accidental contact with blood.**

Preventive measures must be used with ALL CLIENTS.





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## **WHAT TO DO IN THE CASE OF ACCIDENTAL CONTACT WITH BLOOD**

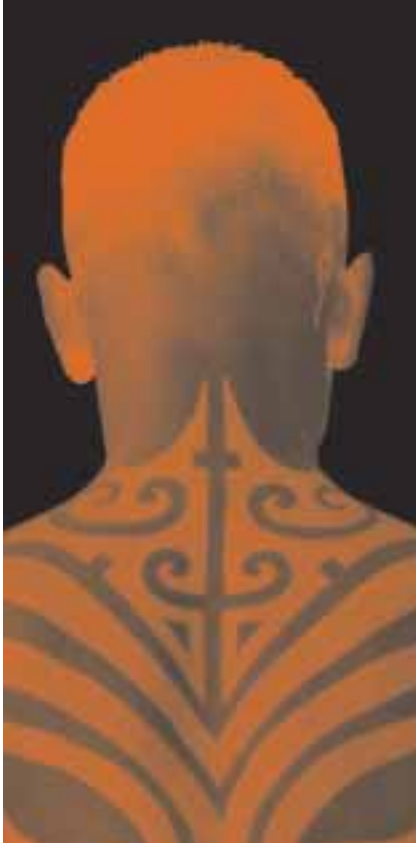
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# Hepatitis B and C and AIDS: a major problem!

- Hepatitis B, hepatitis C and AIDS are infectious diseases caused by viruses transmitted through the blood.
- Hepatitis B is the most common of the three diseases, followed by hepatitis C, and, finally, by AIDS, which is much less common.
- There currently is a vaccine against hepatitis B, but there are no vaccines to combat hepatitis C or AIDS.

**B**ut these diseases can be prevented... and that's where you come in!

As a tattooer or piercer, you may be in contact with clients who are infected with hepatitis B (HBV), hepatitis C (HCV) or AIDS (HIV) viruses. It is estimated that, in Québec:

- about one in 20 people will have hepatitis B at some point in their lives, and 5% to 10% of these will remain carriers of the hepatitis B virus;
- about one in 100 people have already had hepatitis C;
- about one in 500 adults will be infected with HIV. The ratio for Montréal, is one in 200.

Whether they are infected with HBV, HCV or HIV, these people may have no symptoms, be unaware of their condition and eventually transmit their infection. They may be among YOUR clients and be unable to tell you about their illness, most often because they are unaware of their condition, and sometimes for fear of being rejected.

## Can you tell when someone is infected?


Race, sexual orientation, sex, age and profession cannot be used as indicators of infection. Moreover, while there are tests to detect HIV, HBV and HCV, the results do not solve the problem. Negative results can give people a false sense of security, because infections are not always detectable in the early stages.

## How can the risks of transmission be reduced?

Fortunately, YOU CAN CONTROL YOUR RISK of contracting HBV, HCV or HIV. Safe sex and refusing to share needles are known ways of preventing the transmission of these viruses. Preventive measures must also be made known and applied in the work place.

This means it is important for you to ADAPT YOUR WORK METHODS to the threat posed by HBV, HCV, HIV and other blood-transmitted diseases.

This pamphlet will clarify the notion of "risk" and give you the means of integrating the recommended preventive measures into your daily work. These measures are often called "universal precautions", to make it clear that they do not apply only occasionally or to certain clients.



The universal precautions must be taken at all times with everyone!



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## ransmission of hepatitis B and C and HIV

HBV, HIV and, to a lesser extent, HCV can be transmitted during unprotected sex. That makes them sexually transmitted diseases (STDs). But they are also blood-transmitted diseases. Currently, transmission through the blood occurs above all when injection drug users share materials. It is also possible for an infected mother to transmit the infection to her child during pregnancy or delivery. And, before screening tests became available, blood transfusions involved a significant risk of transmission of these viruses.

A significant exposure to the blood of an infected person carries a slight risk of HBV, HCV or HIV transmission.

The principle to remember is simple: a situation involves a risk if the blood of an infected person touches a mucous membrane (in the eyes, nose or mouth) or penetrates the skin of another person.

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## he risk of transmission during tattooing or piercing

Three elements are essential for virus transmission:

### 1. The virus itself.

Obviously, if no one is infected, there is no risk. **But, in the real world, it is impossible to know that this is the case while tattooing or piercing.**

**2. A "vehicle" or "means of transport" allowing the virus to survive outside the organism and to be transmitted from one person to another.**

Certain body fluids are considered to be potential vehicles for transmitting the virus from an infected person to another person. Blood, sperm and vaginal fluids are the ones most often involved in viral transmission. Sweat, tears, vomit, feces and saliva create a risk only if they are tainted with blood. Nevertheless, saliva that penetrates the skin directly, as in the case of a bite, may present a risk of hepatitis B transmission. The body fluids of an infected person can be transmitted directly to someone else or indirectly, by way of a contaminated object.

**3. A point of entry allowing the virus to attack the blood system of another person.**

Simple contact with healthy skin does not open the door to the virus. On the contrary, healthy skin is an effective barrier. But any break in the skin (dermatitis, a cut, a scrape, a needlestick injury, for instance) constitutes a point of entry. And mucous membranes (in the eyes, nose, mouth, vagina or ureter, for example), which are more fragile, are considered to be points of entry.

When a potentially contaminated body fluid penetrates the skin or is brought into contact with a mucous membrane, it is felt that significant exposure liable to carry a risk of HBV, HCV or HIV transmission has occurred. HBV is the virus transmitted the most easily. Being stuck with a needle contaminated with HBV carries a 6% to 30% risk of infection. The risk is 2% to 10% for HCV and 0.3% for HIV.





## When is there an actual risk?

Any situation in which a significant exposure to the virus may occur is considered to be a risk situation.

It is foreseeable that there will be blood during tattooing or piercing. Any instrument (a needle, tube, metal point or scissors, for example) that has one person's blood on it and is used for another person without being properly sterilized may be a source of significant exposure. A tattooer or piercer who injures himself with such an instrument is also significantly exposed. Ink may be contaminated by blood during tattooing. If such ink is reused with another client, it, too, may constitute a source of exposure to a blood-transmitted virus.

Sharp instruments with blood on them may be sources of significant exposure if they are disposed of or stored in pierceable containers. A contaminated needle or scissors with blood on them thrown into plastic bags may later injure the person who does the cleaning. That person will then have been significantly exposed.

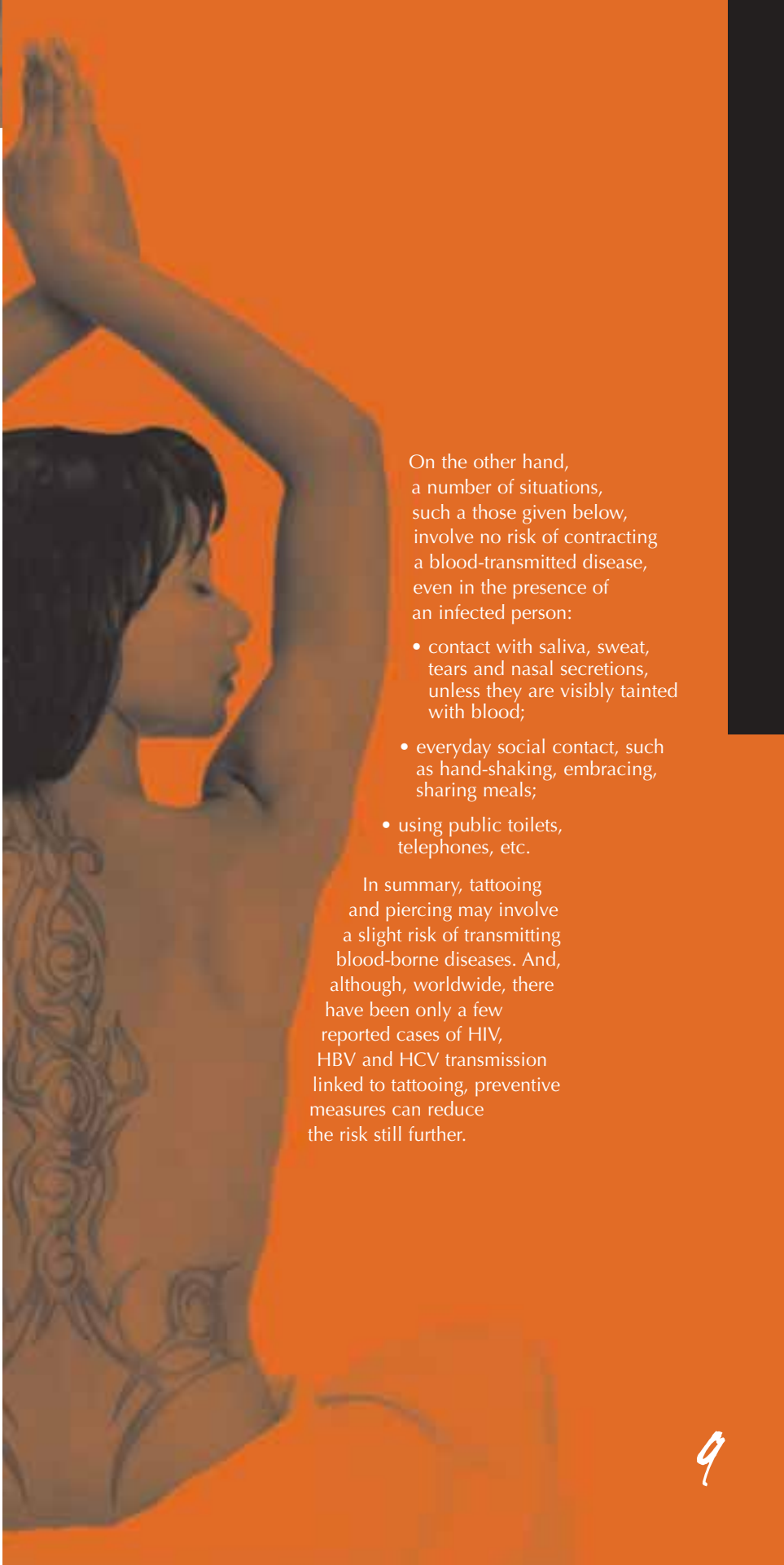
Remember: any sharp or pointed instrument or object contaminated with blood is a potential source of infection for clients or other people who may be exposed (tattooers, piercers, janitors, etc.)

Also, a tattooer or piercer who is injured and contaminates an instrument with his/her blood may, in theory, transmit an infection to a client, if he/she forgets to disinfect the instrument properly or to sterilize it.

Obviously, in such situations, transmission is only possible if a virus is present. Since, most of the time, you will not know whether or not a virus is present, any significant exposure must be taken seriously, and measures must be taken to prevent the risk of infection.







On the other hand, a number of situations, such as those given below, involve no risk of contracting a blood-transmitted disease, even in the presence of an infected person:

- contact with saliva, sweat, tears and nasal secretions, unless they are visibly tainted with blood;
- everyday social contact, such as hand-shaking, embracing, sharing meals;
- using public toilets, telephones, etc.

In summary, tattooing and piercing may involve a slight risk of transmitting blood-borne diseases. And, although, worldwide, there have been only a few reported cases of HIV, HBV and HCV transmission linked to tattooing, preventive measures can reduce the risk still further.



**The basic principle is, use preventive measures with all clients all the time.**

The essential preventive measures are as follows:

1. Washing hands, using protective barriers, controlling bleeding
2. Cleaning, disinfection and sterilization
3. Safe handling, storage and disposal of sharp or pointed objects
4. Single-use materials
5. Vaccination against hepatitis B

These measures can be easily integrated into tattooing and piercing practice.

## 1 WASHING HANDS, USING PROTECTIVE BARRIERS, CONTROLLING BLEEDING

### Washing hands

The importance of this simple, and often neglected, habit cannot be exaggerated!

Hands must be washed BEFORE tattooing or piercing is begun, IN BETWEEN clients and IMMEDIATELY following contamination with blood or blood-tainted body fluids.

Any type of soap may be used. The important thing is to take enough time. Hands should be rubbed for at least 10 seconds, not forgetting under the nails. Hands must be well rinsed and then dried, preferably with disposable towels. The entire process should take about 30 seconds!



## Using protective barriers, controlling bleeding

### Gloves

Latex gloves, or, for people allergic to latex, non-latex gloves (e.g., nitrile) must be worn:

- in all situations in which the hands may be in contact with a client's blood or with body fluids tainted with blood. It is recommended that tattooers and piercers wear gloves for all tattooing and piercing;
- whenever an object with blood on it is handled;
- while **cleaning or disinfecting** surfaces and instruments.

### What is the right way to use gloves?

- Gloves must be changed between clients, always. The gloves do not have to be washed, but it is important that the hands be washed before and after wearing gloves.
- While one client is being tattooed or pierced, gloves must be changed if they are torn or pierced, or if the procedure takes an exceptionally long time.
- It is important to remove the gloves as soon as services to clients are interrupted or terminated. The gloves must not be kept on to handle equipment, otherwise there is a danger of contaminating the equipment.

All tattooers and piercers must make the use of gloves a regular, daily habit. Skill with them develops just like any other technique, as is clearly attested by the ever-increasing number of tattooers and piercers who have integrated the wearing of gloves into their daily routine.

## Controlling bleeding

Since bleeding is always possible during tattooing or piercing, it is important to reduce exposure to blood as much as possible by wearing gloves and by wiping blood away with compresses as it appears.

## 2 CLEANING, DISINFECTION AND STERILIZATION<sup>1</sup>

### Cleaning

Cleaning is an ESSENTIAL first step. It must PRECEDE any disinfection or sterilization procedure. When an instrument is free of visible debris, the action of disinfectants is improved. Cleaning can be done with an ultrasound device or manually, with germicidal soap and a small brush, and is followed by rinsing with clear water.

For tattooing, it is important to properly clean the tubes that house the needles, because blood or ink may accumulate at the ends.

### Disinfection

Work surfaces that may be contaminated must first be cleaned, then disinfected, prior to any work with clients. Proper disinfection is enough **only** for instruments or objects that **do not penetrate the skin or the mucous membranes of another person**. Such instruments and objects must be disinfected with appropriate products before use with each client.

### What is the right disinfectant?

At the very least, a quality disinfectant has a good antimicrobial effect, is easily stored, and is nontoxic, noncorrosive and not messy.

Always remember to clean first and then disinfect. Not all disinfectants are equally effective, and the same product may be more or less effective depending on the conditions under which it is used. Certain products must not be handled by pregnant women. The manufacturer can tell you about the minimum time required for adequate disinfection, and about the precautions required with any product you use.

<sup>1</sup> Disinfection and sterilization are two different things: **sterilization** involves the destruction of all micro-organisms, including viruses and spores. **Disinfection** does not necessarily kill all microbes.

### Disinfecting surfaces (counters, tables, chairs):

Since micro-organisms can survive for a certain amount of time on them, surfaces must be disinfected on a regular basis and whenever there is reason to believe they may have been contaminated. Here is how:

- Wear gloves.
- First of all, wipe the surface with a paper towel and clean it with soap and water or with detergent, because disinfectants are less effective when organic matter is present.
- Disinfect with a solution of one part commercial bleach (5.25% sodium hypochlorite) to 9 parts water (1:10, 5000 ppm). The solution must be left on the surface to be cleaned for about 10 minutes before being wiped off. Once prepared, the solution can be kept for about two weeks in a closed opaque container. If other disinfectants are used, make sure that they can destroy all viruses, and follow the recommendations of the manufacturer to the letter.

### Disinfection of instruments:

**Disinfection is sufficient only for objects that cannot pierce skin** and which are used on unbroken skin.

If there is any doubt, it is best to sterilize or to use disposable material. The product generally recommended for disinfection is glutaraldehyde 2% (e.g., Cidex, Sporex). The manufacturer's recommendations on dilution, duration of action and **toxicity** must be carefully complied with.

Single-use disposable needles are recommended. If there are plans to reuse a needle with the same client, it is recommended that it be sterilized after each use. This is a measure to protect **YOU** and your clients!

## Sterilization

In a tattooing or piercing studio, any object that can pierce skin or that is used on damaged skin must either be sterilized or be disposable.

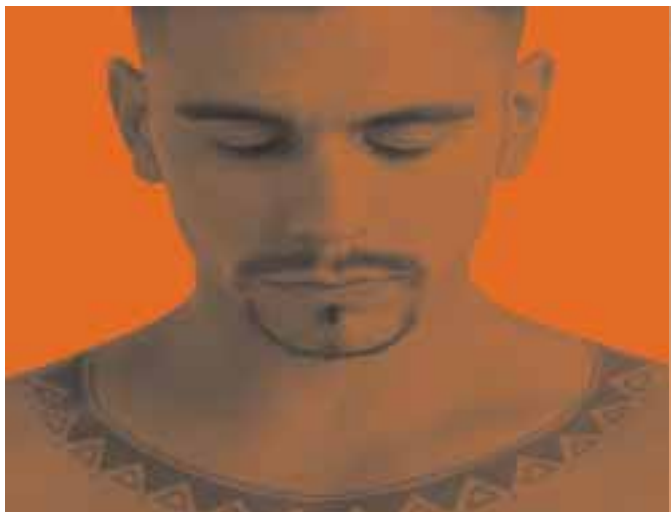
All objects must be cleaned before use. There is no ideal, universal method of sterilization. A **sterilizer** or **chemical sterilization** may be used. Various types of sterilizers are on the market, but an **autoclave sterilizer** is recommended for all nondisposable objects that can pierce skin or that are used on damaged skin.


Ordinary ovens are inappropriate for sterilization because there is no way of guaranteeing that they maintain the desired heat for the full time required. Furthermore, they do not distribute heat evenly.

## 4 Sterilizers

When using sterilizers, pay particular attention to the following points:

- **ALWAYS** be aware of the manufacturer's instructions and recommendations regarding maintenance of the autoclave, as well as the specifications regarding the type of objects and packagings that can be sterilized.
- **BE CAREFUL** when there is a change of staff or equipment. **MAKE SURE** that everyone who uses the equipment has complete and appropriate training.



- 
- **CONTROL QUALITY.** Do not have blind faith in sterilizers. It is not enough to make sure that an object has gone through the entire sterilization cycle (chemical indicator strips, for instance). Also, check periodically to see that the object actually is sterile. Biological tests are the only way to do this. It is recommended to do these tests at least once a month. They should be done more frequently in situations such as the following:

- a biological test yields a positive result;
- there is a change of staff;
- a new piece of equipment is installed;
- a device has recently been repaired;
- a device has not been used for an extended period (e.g., during a vacation).

Ask the manufacturer about how to check your sterilizer. There are tests for this purpose on the market.

## Chemical sterilization

Chemical sterilization, i.e. immersion in a sterilizing solution, is a second option. Most disinfectants or antiseptics **are not suitable for sterilization**.

Glutaraldehyde (e.g. Cidex-7™ (2%), Cidex Plus™ (3.2%) or Glutarex™) is the chemical solution generally recommended for this method. The manufacturer's specifications for the duration of immersion (about 10 hours) must be adhered to. If the duration of immersion is insufficient, disinfection, not sterilization, will have taken place. Glutaraldehyde has toxic vapours and must therefore be used in a well ventilated area. To prevent accidents, it is preferable not to use it in the room where tattooing or piercing is done. Note that this method does not allow for the recommended verification of sterilization efficacy with biological indicators.



### 3

## SAFE HANDLING OF INSTRUMENTS AND WASTE

### Safe handling of instruments

Accidental injuries are frequent, and often avoidable. Gloves are insufficient protection against injury with a sharp instrument or needle. Therefore, instruments with sharp points or blades must be handled very carefully.

**The recapping of needles is recognized as particularly risky. It is important TO NEVER RECAP NEEDLES. If you use needles, use disposable ones.**

Needles (nonrecapped ones) and other sharp instruments must be disposed of in rigid perforation-resistant containers. Any other disposable object that has been contaminated with blood must be disposed of in closed double plastic bags.

### Safe handling of waste

- Dispose of soiled needles and other sharp objects in a rigid perforation-resistant container designed for the purpose. Keep a container of this type near users. Empty bleach containers are not as safe.
- Put bandages and other contaminated nonsharp disposable objects in closed double plastic bags.
- The rigid containers and plastic bags must be thrown out in accordance with municipal by-laws on biomedical waste, because they contain blood-contaminated objects.

Specialized firms provide safe containers as well as pickup and disposal services for biomedical wastes, which are incinerated. Contact the public health department in your region to find out about the firms offering such services.



## 4 SINGLE-USE MATERIALS

Single-use materials should be used with each client:

- Pigments (inks) must be dispensed in single-use capsules that are discarded after use.
- Needles must be sterile and disposable.
- Razors used to prepare skin must be thrown out after each use.
- Tongue depressors or similar items used for creams and ointments must be replaced after each use.

## 5 VACCINATION AGAINST HEPATITIS B

Vaccination is the preferred means of preventing hepatitis B.

The hepatitis B vaccine is recommended as a preventive measure for people who are at risk of exposure to the virus. It is very effective: 90% to 95% of people who receive three doses at specified intervals staggered over six months develop antibodies against the virus. Studies are currently being conducted on the long-term protection afforded by the vaccine. It is now known that that protection lasts several years, and booster shots are not systematically recommended.

The most frequently observed side effect is sensitivity at the site of injection. A short-lived, mild fever sometimes occurs 24 to 48 hours after the injection. There is NO risk that the vaccine will transmit hepatitis B, hepatitis C or HIV.

The hepatitis B vaccine is available with a medical prescription at pharmacies and can be given by an authorized health professional. It is unfortunately not administered free of charge. More information is available from your doctor, your CLSC's Info-Santé service, the public health department in your region, and, sometimes, from your employer.

**Everyone whose work involves a risk of contact with blood or a needlestick injury should be vaccinated against hepatitis B.**

**Do not forget, however, that even if you have been vaccinated, you still need to take the preventive measures described above.**



# WHAT TO DO IN THE CASE OF ACCIDENTAL CONTACT WITH *BLOOD?*

Even with protective barriers and safe handling of instruments, accidental exposure is always possible and generally unforeseeable. Accidental contact occurs when blood or a blood-contaminated instrument penetrates the skin or touches a mucous membrane of another person. *If this happens, you should know that early intervention can reduce the risk of infection transmission.*

The measures to be taken immediately upon accidental exposure to blood are given below.

## eneral measures

### 1. To avoid **PROLONGED** contact:

- When an accidental needlestick injury occurs, make a few drops of blood flow from it. The wound can be cleaned better that way.
- Wash the contaminated skin surface well, without scrubbing it.
- In the case of a splash, wash the mouth or the eyes thoroughly.

### 2. To avoid **REPEATED** contact:

- Limit the source of bleeding, by applying pressure with compresses, for instance.
- Put the instrument used into a rigid container.
- Disinfect the contaminated surface with a bleach solution (see p. 13).

### 3. Write down the details of the accident:

- The date and time of contact.
- The type of contact: amount of body fluid, extent of contact (depth of wound, surface affected, duration of contact).
- The source of contact: the contaminated instrument, the people involved (client, staff, etc.).

### 4. Consult a health professional immediately.

Further measures, such as vaccination or medication, can also be taken. The health professional consulted to evaluate the exposure will decide what is appropriate. Since certain measures must be taken rapidly, consultation should occur immediately after first aid has been given.

## Specific measures against hepatitis B



The risk of infection following exposure to the hepatitis B virus can be quite significant. Fortunately, there are two types of products for the prevention of hepatitis B.

- Specific immune globulins:

These are antibodies given by injection. They protect the receiver against the virus temporarily – for about two months. They are sometimes prescribed following exposure, but must be given as soon as possible: within seven days of the accidental contact, and preferably within 48 hours.

- Vaccine:

Hepatitis B vaccine can also be given following exposure, depending on the circumstances of the accident and the immune status of the person who was exposed, i.e. whether or not hepatitis B antibodies are present, which is determined by a blood test.

## Specific measures against hepatitis C

If the exposure involves a risk of hepatitis C transmission, the only measure recommended at the present time is repeated blood tests over a six-month period to watch for signs of infection.

## Specific measures against HIV

There is no vaccine against HIV. Depending on the possible degree of exposure, recommended measures may include repeated blood tests for six months and prescribed medication (taken as soon as possible after exposure – ideally within two hours, depending on the degree of risk).

# Developing a procedure

The measures described above must be applied **SYSTEMATICALLY** whenever significant exposure to blood occurs.

This means there must be a written procedure clearly describing the steps to be taken in cases of accidental contact with blood. The procedure must provide for handling matters confidentially and respecting the rights of all persons involved.

- The procedure must include **general measures**, described in detail and adapted to the conditions of the persons involved.
- If a team is involved, one person should be made responsible for implementing the procedure.
- The procedure should say where to call (doctor in private practice, CLSC) for an evaluation of the risks of exposure and the application of **specific measures**. It should also list the times at which the doctor or an alternative resource is available. Your CLSC's Info-santé service can tell you about the resources available in your region.

The procedure must be updated regularly, at least once a year.

# KEYS TO THE PREVENTION OF BLOOD-TRANSMITTED INFECTIONS IN TATTOOING AND PIERCING STUDIOS

## FUNDAMENTAL RULES

- Observe basic rules of hygiene
- Keep the work place clean
- Keep instruments and equipment clean

### Before working with each client

- Wash your hands
- Prepare instruments and equipment in a clean, disinfected environment

### While working with each client

- Always bear in mind that the client may be infected
- Wear gloves
- Always work with instruments and equipment that have been disinfected or sterilized, as required
- Avoid injuring yourself with instruments and equipment
- Know the procedure to follow in the case of exposure to blood

### After working with each client

- Remove the gloves used
- Wash your hands
- Clean, disinfect or sterilize instruments and equipment
- Clean and disinfect work surfaces

For more information on general measures of hygiene or waste disposal, contact the public health department in your region.

As working people, tattooers and piercers have a right to protect their health and safety. They also have the responsibility of taking all necessary precautions to protect the health of their clients.

Concern for the safety of clients is your best publicity, just as important as courtesy and your skill as a tattoo or piercing artist.

A leaflet was also produced for your clients. Published under the title "Tattoos and Body Piercing-Protecting yourself from AIDS, hepatitis B and hepatitis C", you can obtain a copy of it from the Direction de la santé publique in your region.

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The masculine form is used in this publication to designate either sex.

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