Hepatitis C:
FACTS, NOT FEAR

Hepatitis C:
Facts, Not Fear

This employee handbook is one of a series of fully illustrated employee handbooks, informative posters, broadcast-quality video programs, interactive CD-ROM and Web-based courses produced by Coastal HealthTrain, a division of Coastal Training Technologies Corporation. Each product is the result of painstaking analysis, design, development and production by the instructional designers and technical specialists on our staff.

This handbook is for educational purposes only and is designed to be used in conjunction with a qualified trainer. Nothing herein is to be regarded as indicating approval or disapproval of any specific practice or product.

Our catalog is constantly being revised and expanded, so we would appreciate any comments on current titles or suggestions for future ones. For further information on any Coastal product, or to receive a free HealthTrain catalog, call Coastal Training Technologies Corp. (Virginia Beach, VA) at 1-800-729-4325 or send a Fax to 757-498-3657. Visit us on the Web at www.coastalhealth.com.

CONTENTS

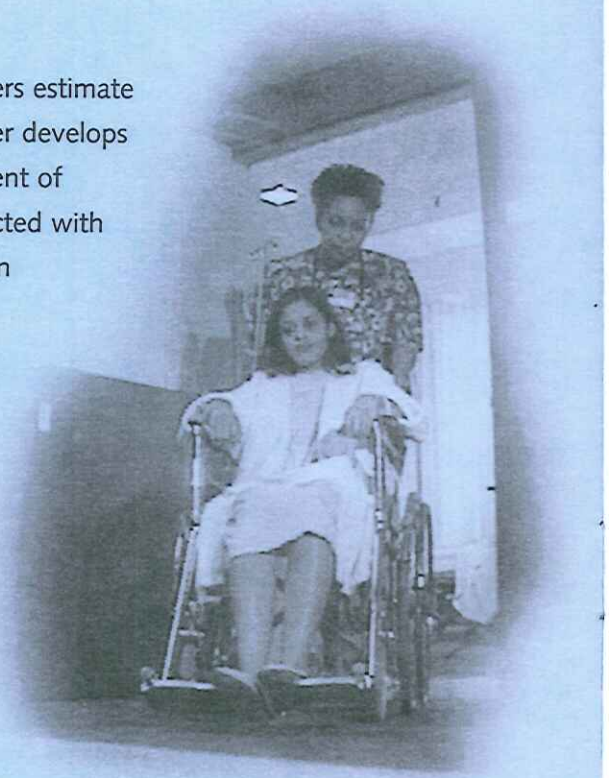
INTRODUCTION

Hepatitis C virus (HCV) is a serious health risk that must not be overlooked. **It's the cause of the most common chronic bloodborne viral infection in the U.S.** According to the Centers for Disease Control and Prevention (CDC):

- 3.9 million Americans are infected with HCV.
- 2.7 million of those are chronically infected.

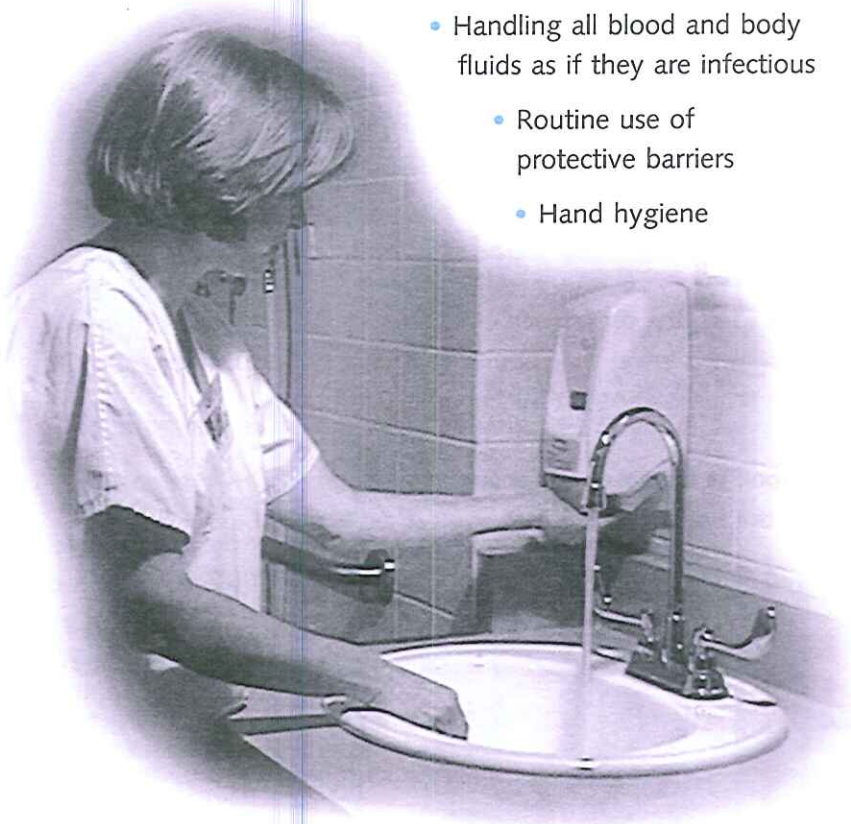
Many people have no apparent symptoms for up to ten to twenty years after infection.

What's more, researchers estimate that cirrhosis of the liver develops in at least twenty percent of people chronically infected with HCV, and liver cancer in one to five percent. In fact, HCV-associated chronic liver disease is the most frequent indication for liver transplants among adults.



Research shows that **the following infection control measures** can significantly reduce the risk of exposure to this virus:

- Handling all blood and body fluids as if they are infectious
- Routine use of protective barriers
- Hand hygiene



- Careful handling and disposal of sharp instruments
- Use of sharps safety devices.

This handbook covers important safety measures and what you need to know to stop transmission, exposure and possible infection by HCV and other dangerous bloodborne pathogens.

HOST-TO-HOST TRANSMISSION

HCV transmission occurs primarily from needle sharing among drug users.

Sexual transmission is not very common because the virus does not spread readily through sexual contact.

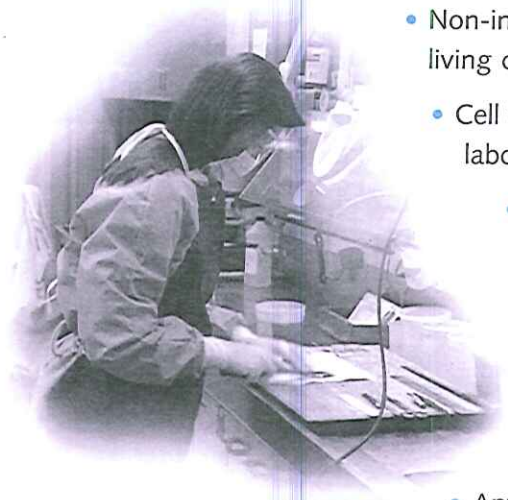
Occupational exposures are even less common. According to the CDC, the prevalence of HCV infection among healthcare workers is lower than adults in the general population, and ten times lower than for hepatitis B infection.

Blood is the single most important source of HCV exposure in the healthcare setting. You can be exposed to HCV if:

- Injured by a contaminated needle or other sharp object
- Eyes, nose, mouth or non-intact skin contact potentially infectious blood, tissue or other body fluids.

Potential exposure sources include:

- Body fluids containing blood which may be potentially infectious
- Non-intact skin or organs – living or non-living
- Cell tissue and other laboratory materials
- Semen and vaginal secretions, cerebrospinal, synovial, pleural, amniotic, pericardial and peritoneal fluids



- Any contact without barrier protection to concentrated virus in the laboratory.

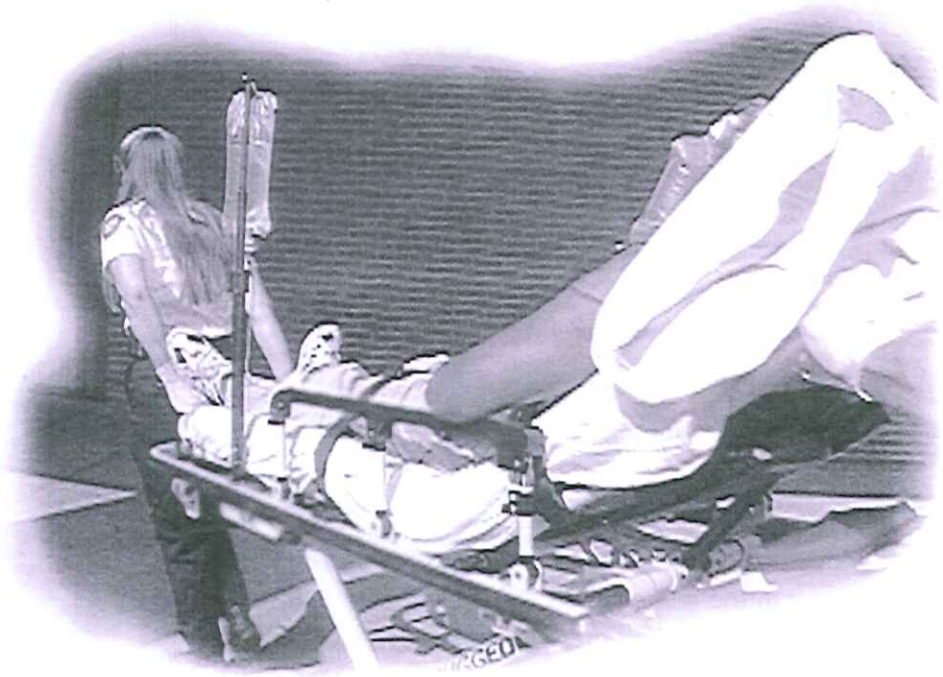
For healthcare workers, the greatest risk of exposure to HCV occurs after injury by a sharp contaminated with infected blood.

Transmission rarely occurs from:

- Mucous membrane exposures to blood
- Even less often with exposures to non-intact skin.

Unlike the hepatitis B virus, environmental contamination with HCV-infected blood is not a risk for transmission, *except* in the hemodialysis setting where spread is related to poor practices like sharing medication vials and supplies. HIV co-infection is also a danger to healthcare workers:

- Approximately 300,000 people with hepatitis C virus are co-infected with the Human Immunodeficiency Virus, or HIV.
- According to the CDC, American healthcare workers have reportedly *seroconverted, or* developed antibodies, to the HIV virus following a workplace exposure. Some have developed AIDS.
- The greatest number of exposures resulted from *percutaneous injury* and *exposure to HIV-infected blood*.



SAFETY PRECAUTIONS PREVENT EXPOSURE

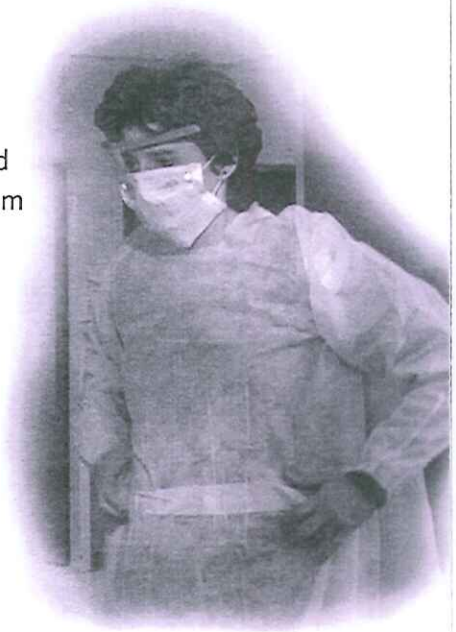
The hepatitis C virus can live in a host for years with no obvious symptoms. If precautions are followed with every patient, you can reduce your chance of exposure and possible transmission to other patients. Research shows that Standard Precautions, which combines features of both Universal Precautions and Body Substance Isolation practices, can reduce exposure to bloodborne pathogens, as well as other infectious pathogens.

The following safety precautions can protect healthcare workers from exposure to HCV, as well as HIV and other bloodborne pathogens.

Barrier Protection

Protective barriers – eye protection, face shields or masks – must be used to protect eyes, nose and mouth from splatters of blood, or other potentially infectious substances.

- Wear gloves to handle any potentially infectious material, including mucous membranes.
- Wear gowns to protect skin and clothing from exposure. Fluid-resistant gowns should be used when contacting large amounts of blood or body fluids.



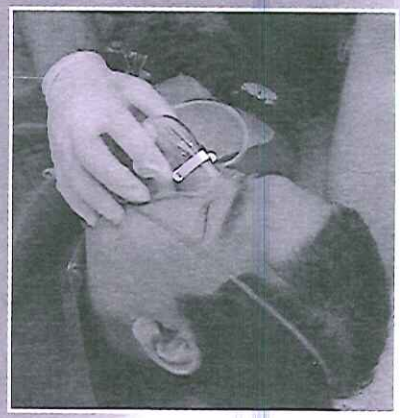
- Resuscitation bags, pocket masks and ventilation devices *must be readily available on crash carts and in procedure* rooms to protect healthcare workers from exposure during medical emergencies.

- Single-use, disposable gloves are worn for medical procedures, and heavy-duty utility gloves are used for housekeeping duties. Single-use gloves are worn only once, and changed between patients.
- Gloves must fit correctly. Before donning gloves, *always* check for flaws or damage. Bandage cuts, sores, or breaks on hands *first*, since gloves can puncture.
- If gloves tear, leak or become contaminated, remove and dispose of them immediately without touching or contaminating skin or clothing. Then, wash hands thoroughly with soap and water.

Hand Hygiene

Clean hands are the most effective way to prevent the spread of infection.

- When hands are visibly soiled or contaminated with proteinaceous substances, such as blood and body substances, wash with soap and running water.
- Wet hands, and apply soap. Rub vigorously for at least fifteen seconds over all surfaces. Rinse thoroughly and dry with a disposable towel. Use a dry towel to turn off the faucet.



- If hands are not visibly soiled, and between patients and after removing gloves, use an alcohol-based hand rub.
- Apply the product to the palm of one hand and rub hands together, covering all surfaces of hands and fingers, until hands are dry.

Sharps Safety

Use caution while handling needles, scalpels, and other sharp *instruments. Most bloodborne pathogen exposures among healthcare workers resulted from sharps injuries.*

- Safety devices, such as needleless systems and protective devices are required by regulation.
- Needles should *not* be recapped, removed from disposable syringes, bent, broken, or otherwise manipulated by hand. Disposable sharps should *never* be re-used.

- If needles must be recapped, use a sheathing device.
- For medication or fluid administration, or when withdrawing body fluids or accessing a vein or artery, use a safe needle device or needleless system whenever possible.

- Dispose of needles and other sharp instruments *immediately* in specially labeled, puncture-resistant containers located close to the area where sharps are used, and positioned slightly below eye level.
- Never reach into a container of contaminated sharps.
- Replace the container *before* it overfills.
- Sharps also include glass. Use a broom and dustpan, or forceps or tongs, to pick up broken glass – not your hands.

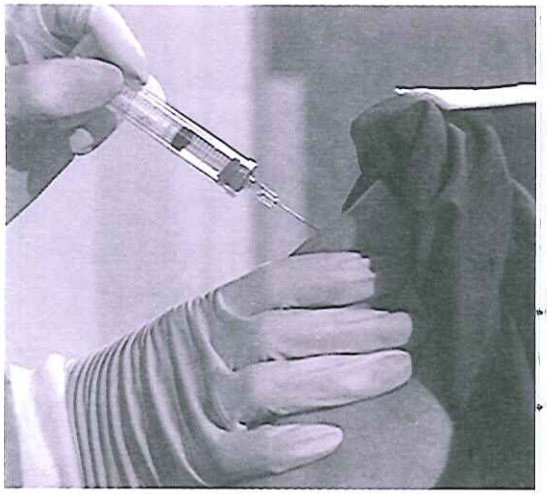
Potentially Infectious Materials

Transport specimens or other potentially infectious materials in closed, leak-proof containers – and watch your step.

Keep work surfaces and equipment clean. If equipment is contaminated with blood or body fluids:

- Do not allow it to touch skin or mucous membranes. Advise patients and visitors to do the same.
- Single-use equipment is discarded after use. Other equipment must be cleaned immediately according to your facility's Exposure Control Plan.
- Blood and other medical waste must be placed in closed, leak-proof containers, and labeled appropriately with colored warning signs to alert others to the contents.
- Waste containers may contain sharps and other potentially infectious materials. Shake down waste gently and avoid touching it with hands or feet. Carry waste bags by the top – away from the body.

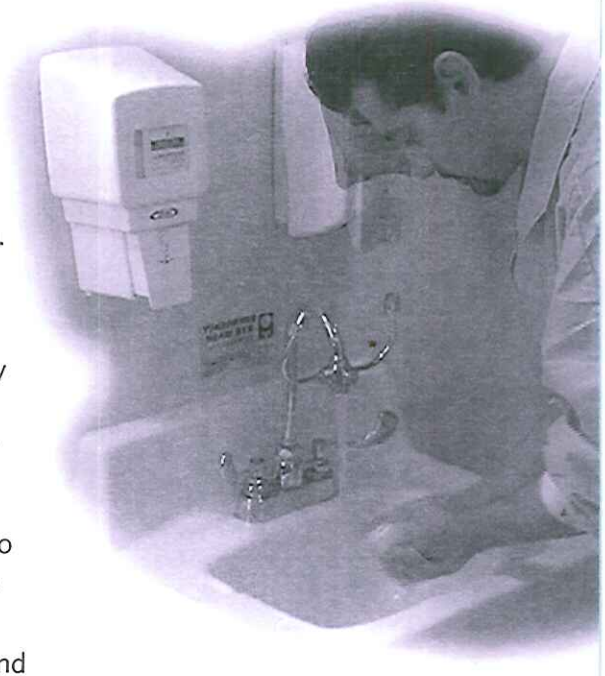
Immunization with HBV vaccine is recommended as an important adjunct to Standard Precautions for healthcare workers at risk of exposures to blood.



WHAT TO DO IF EXPOSURE OCCURS

Read your facility's Exposure Control Plan – before exposure. The plan outlines potential hazards for each job and steps to minimize exposure to HCV and other bloodborne pathogens.

If you are exposed to blood or other potentially infectious materials:



- Wash the exposed area, needlestick, or cut with soap and water immediately.
- Do not use caustic agents such as bleach.
- Flush eyes and exposed mucous membranes repeatedly with water. Irrigate eyes with clean water or saline.
- Report the exposure to the designated person immediately, so post-exposure evaluation and management can begin right away.
- A blood test can determine if the source of the exposure is infected with HCV. If workers are exposed to an HCV-positive source, baseline and follow-up blood testing can

determine if infection has occurred. It may take several blood tests over time to show whether or not the worker has become infected, but not all exposures cause infection.

- For those who do contract a hepatitis C infection, anti-viral therapies may be beneficial when started early in the course of infection. Combination anti-viral therapies have been effective for some people with chronic hepatitis C infection.

CONCLUSION

While research into HCV and other bloodborne pathogens is ongoing, much is still unknown about the risk of infection among healthcare workers. Until more is understood about these dangerous pathogens, your best defense includes:

- **Safe work practices**
- **Good personal hygiene.**

Consistent attention to safety precautions has proven to keep both healthcare workers and patients safe from exposure.