

Infectious Diseases

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Answering the Questions


How do I protect myself?
What's out there and how do I stop it?

Standard Precautions

The procedure formerly known as Body Substance Isolation Precautions.


Chain of Disease Transmission

- Infectious Agent
- Reservoir
- Port of Exit
- Mode of Transmission
- Port of Entry
- Susceptible Host



Our Goal:

Break this chain at any link we can.



Why Standard Precautions?

Part of the scene size up.
Prevention of disease transmission
Physical barrier for airborne droplet and blood/body fluids

Personal Protective Equipment

Gloves

- Latex
- Non-latex alternatives
- Powder free

Protective Eyewear

Gowns

Personal Protective Equipment

Surgical Masks

Pocket Masks/ Barrier Devices

Alternative PPE's

- Leather gloves
- Eyeglasses

After the Gloves Come Off


Hand washing is the #1 way to prevent disease transmission.

Wearing gloves is not a substitute for hand washing.

Use soap and friction

Alternative cleansing

- Alcohol hand degermers/ Hibistat wipes



Blood and Body Fluids

What are body fluids?

- Blood
- Urine/ Feces
- Tears/ Saliva
- Sexual fluids
- Breast Milk
- Amniotic fluid

Hepatitis

Hepatitis A

- Fecal to mouth transmission, generally by food
- Commonly known as the restaurant virus
- Increasing incidence in care facilities
- Signs and symptoms
- Vaccine available

Hepatitis

Hepatitis B

- Blood transmission
- Major cause of liver cirrhosis and cancer
- Most commonly known among healthcare providers
- Signs and symptoms
- Vaccine available


Hepatitis

Hepatitis C

- Blood transmission
- Approximately 5.5 million Americans infected
- Most common bloodborne pathogen in the US
- Those infected have an 80% chance of chronic illness
- The #1 reason for liver transplants today

Hepatitis

The Centers for disease control have identified Hepatitis D-I



Human Immunodeficiency Virus

HIV is not AIDS

- Virus is found in blood, semen, vaginal secretions, and breast milk
- Without direct exposure the virus is probably only viable in wet blood
- Virus is present in infected persons with or without symptoms
- Needle stick transmission rate is .3-.4%

AIDS

Acquired Immune Deficiency Syndrome

- AIDS is the end stage of the HIV infection
- Opportunistic infections
- Skin lesions
- Pneumocystis pneumonia
- Encephalitis
- TB

AIDS & The Health Care Worker


5.1% of AIDS cases are in Health Care Workers

Occupational Exposure

- Only 67 HCW have acquired from the workplace
- Most of these are from punctures

Other Blood and Body Fluid Diseases

Rabies	Sexually Transmitted Diseases
Lymes Disease	Polio
Malaria	Typhoid
Plague	Ebola
Cholera	



Airborne Droplet Diseases

- Tuberculosis
- Meningitis
- Childhood diseases

Tuberculosis

Signs and symptoms include: weight loss, night sweats, weakness, fever, productive cough with bloody sputum

Nationally, incidence is on the rise, level here in MN

In 2000 there were 78 new cases at HCMC, 37 were respiratory (33 (15) in '98, 53 (22) in '99)

Meningitis

Viral

- Relatively common but rarely serious
- Signs and symptoms include: GI problems, respiratory, febrile, stiff neck
- Many different types exist
- No formal treatment

Meningitis

Bacterial (Meningococcus)

- Very serious, often fatal, mainly seen in children
- Acute inflammation of the meninges
- Vaccine available
- Profound exposure may get rifampin prophylactically

Other Airborne Diseases

- | | |
|-------------|--|
| Chicken Pox | Cold |
| Measles | Influenza |
| Rubella | Pertussis (Whooping Cough) |
| Rubeola | MRSA (Methicillin Resistant Staphylococcus Aureus) |



Significant Exposure

Blood and Body Fluids

- Exposure to non-intact skin
- Sprayed into eyes, nose, mouth
- Contaminated needle stick




Human bite that breaks the skin

Airborne Droplet

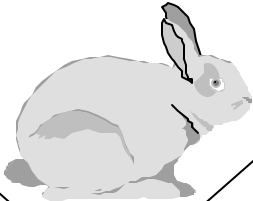
- Time in a confined space with a coughing patient

And Now For Something We Hope You'll Really Like




Where The Germs Are

- Not to Worry
- Biological Long Shots
- Minor Gambles
- Definite risks




Not to Worry

- Mold Covered Coffee Mug
- Laundromat Washing Machine
- Bottom of your Shoe
- Bachelor's Kitchen
- Money
- Gym Bench
- Hotel Bed
- Urine on the Toilet Seat



Biological Long Shots

- Your Dog
- Your Favorite Diner Table
- The Communion Chalice
- Beer Nuts at the Bar
- Public Swimming Pool
- Fish Aquarium
- Convenience Store Coffee Area



Minor Gambles

- Public Pay Phone
- Women's Restroom
- Kitchen Sponge
- Urinal Handle, Faucet, or Doorknob in the Men's Restroom
- Grandma's Home Canned Food

Definite Risks

- Friendly Greetings
- Locker room Shower Floor
- Hotel Hot Tub
- Preschools/Daycare
- Dr's Stethoscope or Pen
- One Night Stand
- Pure Mountain Stream
- Kitchen Cutting Board

What do you get?

- Better understanding of how important Standard Precautions are to your well being.
- Better understanding of what bugs are out there.
- Better knowledge of how much or how little they effect you.

