

Infection Prevention and Control



What is an infection?

- An infection is an illness caused by microorganisms
- A disease producing micro organism is called a pathogen
- Most microorganisms are classified as:
 - Bacteria (staphylococcus)
 - Virus (Flu, Chicken pox)
 - Fungus – Athletes foot
 - Parasites - Scabies



How Does Our Bodies Defend Use Against Infection

- The body's first line of defense against pathogens (Disease producing microorganisms) is:
 - Skin that is intact
 - Mucous membranes that are intact

You can decrease your risk of infection by:

- Good nutrition
- Getting plenty of rest
- Avoid people with infections
- Good hand hygiene, respiratory hygiene



How Infections/Diseases Spread

- **Contact** – *Some organisms are spread by touching the person with the infection or an object they have touched. Example: Staph infection*
- **Droplet Transmission** – *some organisms are spread in the air (coughing, sneezing) but usually are only in the air about three feet from the source. Example: Flu*
- **Airborne Transmission** – *some organisms are so small they can travel in the air for great distances. Ex. Tuberculosis*



INFECTION PREVENTION

Standard precautions *are a set of infection control practices used to prevent transmission of diseases that can be acquired by contact with blood, body fluids, non-intact skin (including rashes), and mucous membranes. These measures are to be used when providing care to all individuals, whether or not they appear infectious or symptomatic*

Standard precautions include:

- *Hand Hygiene*
- *Wearing gloves when touching blood, body fluids, non-intact skin, mucous membranes, and contaminated items.*

Hand Hygiene is the most effective means to prevent spread of infection

Germ Farm



Scrub'em!

www.1st-in-handwashing.com



Hand washing with Soap and Water vs Alcohol Hand-rubs

Wash with soap and water:

- ❖ **When visibly dirty**
- ❖ **When contaminated with protein substances**
- ❖ **When contaminated with blood or body fluids**
- ❖ **Before eating or handling food**
- ❖ **After using the restroom**

Use Alcohol Hand-rubs:

- **When NOT visibly soiled**
- **Before direct patient contact**
- **Before donning gloves and prior to invasive procedures**
- **After contact with intact skin and mucous membranes**
- **After removing gloves**
- **If moving from a contaminated body site to a clean body site**
- **After contact with objects in patient's environment.**

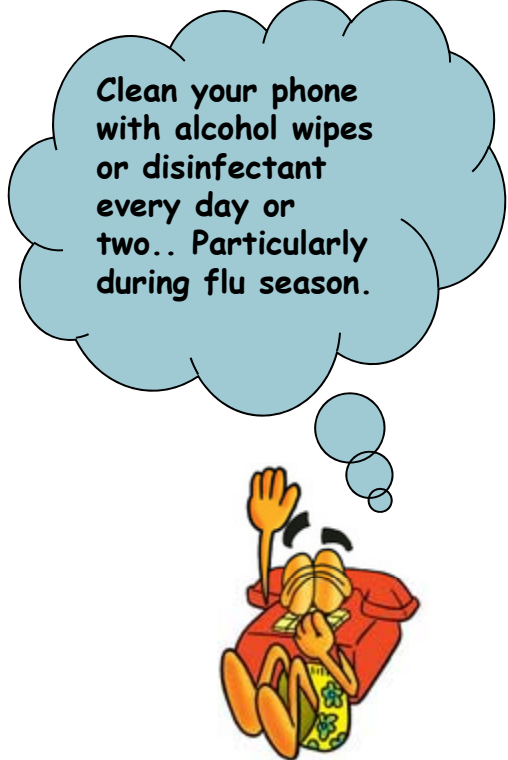


Hand Hygiene ..about fingernails

- Thousands of pathogenic organisms can survive under and around fingernails
- Clean areas under fingernails if they are visibly dirty, and pay special attention to these areas when you wash OR use alcohol handrubs
- Freshly applied nail polish does not increase the number of germs present
- BUT chipped nail polish may harbor bacteria.
- Persons with artificial nails are more likely to harbor higher bacterial counts than those who do not wear them.
 - **Health care workers who work in high risk areas should not wear artificial nails.**

Infection Control In the OFFICE

- Don't expose other employees to your infection. Don't come to work with fever.
- Wash your hands!!
- Coughing/Sneezing.
 - Cover nose and mouth
 - Discard tissues



Clean your phone with alcohol wipes or disinfectant every day or two.. Particularly during flu season.

SEASONAL FLU AND PNEUMONIA



Influenza

- ❖ 200,000 + people are hospitalized with complications of flu annually
- ❖ 36,000 vaccine-preventable deaths due to seasonal flu

PNEUMONIA

- ❖ 1.4 Million hospitalizations annually in US
- ❖ About 4,800 vaccine preventable deaths each year are attributed to pneumococcal disease with 175,000 hospitalizations

Most healthy adults may be able to infect others beginning 1 day before symptoms develop and up to 5-7 days after becoming sick. That means that you may be able to pass on the flu to someone else before you know you are sick, as well as while you are sick.

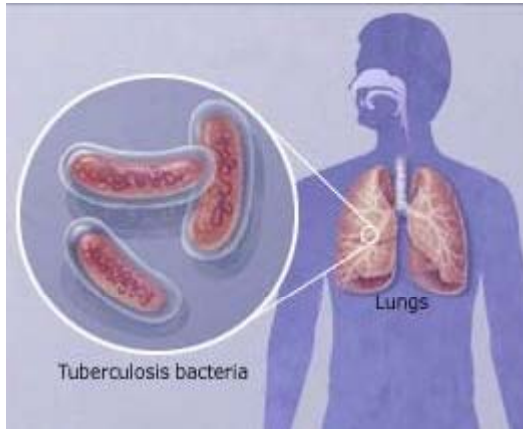


*With
So many people getting
the flu ...
WHY
NOT
GET the
FLU SHOT*



TUBERCULOSIS

What is Tuberculosis



- Tuberculosis is a bacterial infection primarily involving the lung.
- The method of spread is airborne.

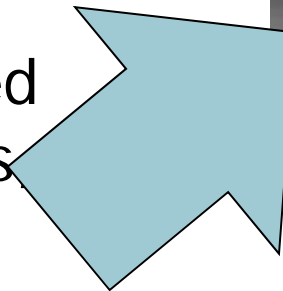
TUBERCULOSIS RISK

- Allstar, ACT, Hospice, Anchor are low

risk for Tuberculosis
based on Guide

lines from the Centers of
Disease Control (CDC)

- If a patient is diagnosed with active tuberculosis staff involved in the care will be fit-tested with N-95 TB mask.



Tuberculosis Skin Tests

- Employees with patient contact will be tested for TB at time of hire using the 2-Step technique.
- This means a new employee has to have documentation of 2 TB skin tests either at time of hire or 2 recent years.





Types of Tuberculosis

- Latent TB

Person has a positive TB skin test

Does not have the disease or symptoms of the disease

May convert to Active TB if the person comes down with a severe disease.

- Active TB

- Chest x-rays and sputum tests show the person has the disease of TB

- It can be treated effectively with drugs.

- About 2 weeks after treatment a person with active TB is no longer contagious



Separating fear from reality

- The state health department said there is a second confirmed case of tuberculosis in [Ellis County](#), while the Denton school district said it would test hundreds of students for exposure to the infection.
- Health officials did not release any information about the case.
- The Texas Department of State Health Services said 221 people in Ellis County have tested positive for exposure to tuberculosis after a high school teacher was diagnosed with the disease. Health officials have analyzed 1,577 skin tests in Ellis County, the department said.



Separating fear from reality

- Dr. Garry Woo, the Dallas County medical director for Tuberculosis Control says this about TB.
- Tuberculosis is an airborne bacterial infection.
- "If someone coughs or someone sneezes in the room or even talks in the room and you inhale the air, you can be infected with someone else's tuberculosis,".
- But exposure to tuberculosis does not mean a person will contract it.
- People are only at risk for contracting the infection if they are in close proximity to a person with an active case for a prolonged period of time -- 40 to 80 hours over the course of several weeks



Separating fear from reality

- "Generally it's an at risk population," Guillinese said.
- He said people with normal immune systems can fight off the tuberculosis bacteria fairly easily.
- People with poor immune systems or kidney disease, severe diabetics and drug users should be concerned "but even their chances of becoming infected are very, very low," Guillinese said.
- **Symptoms**
- Parents who worry that their child was exposed to tuberculosis or could have it should be tested by their pediatrician. Symptoms to look out for are a chronic cough that lasts longer than three weeks, a high fever (around 104 degrees) and night sweats.
- **Why Texas Doesn't Routinely Test for TB**
- The Texas health department dropped required tuberculosis testing in 1987.
- State health officials say they stopped routine testing primarily because so few people were testing positive.
- The testing was also expensive, especially for p

Separating fear from reality

- Texas had only 1,385 cases of tuberculosis in 2010 and 1,500 cases in 2009.
- According to the Centers for Disease Control and Prevention, nearly 9 million around the world become sick with tuberculosis each year.

