Top 10 ways to prevent infection

1. **Wash your hands frequently.** Did you know that microbes can live on inert surfaces anywhere from a few minutes to several months? Imagine these disease-causing microorganisms living on your computer keyboard, your light switch, or even on the elevator button! Surprisingly, most people don’t know the best way to effectively wash their hands! The Centers for Disease Control and Prevention (CDC) recommends washing thoroughly and vigorously with soap and water for at least 20 seconds, followed by hand-drying with a paper towel. In the absence of running water, an alcohol-based hand gel or wipe will suffice, although nothing beats good old soap and water. This takes about as long as it does to sing "Happy Birthday," so some hospitals recommend washing your hands for the duration of this simple tune! Get more hand washing tips from the CDC at: [http://www.cdc.gov/healthywater/hygiene/hand/handwashing.html](http://www.cdc.gov/healthywater/hygiene/hand/handwashing.html).

2. **Don't share personal items.** Toothbrushes, towels, razors, handkerchiefs, and nail clippers can all be sources of infectious agents (bacteria, viruses, and fungi). In kindergarten, you were taught to share your toys, but keep your hands to yourself. Now try to remember to keep personal items to yourself as well! Remind children often about the types of items they should NOT share with others.

3. **Cover your mouth when you cough or sneeze.** In a similar vein, good personal hygiene includes not only personal cleanliness, but also the age-old practice of covering your mouth when you cough or sneeze. Why is this important if you aren’t sick? For most infections, the disease-causing microbe has already started growing and dividing long before any symptoms begin to show. Coughing or sneezing can spread these germs through microscopic droplets in the air. The current recommendation is to cover your mouth with your arm, sleeve, or crook of the elbow, rather than using your hands.

4. **Get vaccinated.** Your immune system is designed to have a “memory” of previous infections. When your body encounters a microbe that has previously caused an infection, it enhances its production of white blood cells and antibodies to prevent infection a second time. However, by getting vaccinated, you “trick” your body into thinking that it has been infected by a particular microbe, hence enhancing its own defenses against subsequent infection. Of course consult your clinician about receiving vaccinations, especially the annual influenza vaccination.

5. **Use safe cooking practices.** Food-borne illnesses frequently arise from poor food preparation and dining habits. Microbes thrive on virtually all food items, and more so on foods left at room temperature. Refrigeration slows or stops the growth of most microbes. Promptly refrigerate foods within 2 hours of preparation. Use separate cutting boards for raw meats and vegetables, keep clean countertops, and wash all fruits and vegetables well prior to eating. See [http://www.fightbac.org/](http://www.fightbac.org/) for more information.
Preventing infection in adult day centers

Adult day centers provide medical, social, nutritional, and recreational services to seniors and adults with disabilities. Typically these adults have chronic health conditions, such as Alzheimer’s and other related forms of dementia, as well as adults with disabilities and adults and elderly in the transitional care phase following hospital discharge. The primary aim of the adult day center is to provide care and increase interaction with others, often times engaging them in group activities. Adult day centers also provide meals, activities, socialization, and supervision.

According to the Centers for Disease Control and Prevention, nearly 5,000 adult day service centers operate in the United States. Half of these centers provide skilled nursing, therapeutic, and social work services, and almost all of them provide transportation services to and from the center. Nearly 300,000 participants enroll in these centers daily.

Choosing an adult day center is very similar to choosing a child care center, and therefore it is important to consider the following:

- Overall cleanliness and accessibility of the environment.
- Observe appropriate hand washing compliance from caregivers, as well as accessibility to sinks and hand washing supplies for clientele. Caregivers should assist clientele with hand hygiene and encourage appropriate hand hygiene before and after meals and after toileting.
- Bathroom and locker room cleanliness, including sanitizing surfaces after changing soiled clothing. Note the type of disinfectants used, how the clients clothing is bagged, and if they are kept separate from other client’s personal belongings.
- Observe personnel compliance with hand hygiene practice before food preparation.
- General food preparation area and serving of meals. Consider compliance with food safety rules including maintaining appropriate serving and storage for hot and cold food items.
- Immunization requirements: In addition to standard childhood vaccines, what are the facility’s requirements for the flu, pneumonia, and shingles vaccine? The elderly are particularly susceptible to these diseases.
- The facility’s requirement for tuberculosis screening.
- Medication storage and accessibility.
- Staff training requirements for first aid. How clientele is protected from the blood and /or body fluids of others. Gloves and other forms of personal protective equipment should be accessible and available.
- Procedure for how clientele are kept safe and protected from illness and injury. Facility policy for clientele and personnel illness.
- How shared medical devices, such as stethoscopes and thermometers, are cleaned between each client use.
Is it allergies or the flu?

Fall is here! Cooler temperatures fill the air. What once were green leaves on the trees are now in different shades of red, orange, and yellow. The change in season also brings illnesses that cause the eyes to water, itch, and become puffy. Soon sniffles, sneezes, and sore throats develop. Are these allergies or is this the flu? Knowing the key differences will help in deciding the best treatment.

What causes allergies and flu?
Allergies are the body's response to allergens such as dust, pollen, pet dander, cigarette smoke, or food. Allergies are not contagious and are not caused by a virus. The flu is contagious and is caused by a virus.

What are the symptoms of allergies and flu?
Allergies occur commonly during the spring through the fall seasons. Symptoms last as long as there is an exposure to the allergen. These symptoms include sneezing, sore throat, coughing, runny nose, and congestion. Allergies may cause mucus that is clear and thin. Other symptoms are itchy, watery, and puffy eyes. In some cases, a rash or hives develop. Allergies do not cause a fever.

The flu causes fever with temperatures of 100-102 degrees Fahrenheit. Symptoms of the flu include chills, cough, sore throat, runny and stuffy nose, headaches, severe muscle or body aches and pains, and fatigue. Other symptoms such as vomiting and diarrhea are more common in children. Flu symptoms occur during the flu season, which is from October through May. On average, flu symptoms last 1-4 days.

What are the treatments for allergies and flu?
To treat allergies, avoid allergens. The doctor may prescribe antihistamines, steroids, or decongestants. To treat the flu, get plenty of rest and stay hydrated by drinking fluids. The doctor may prescribe an antiviral medication.

What are the ways to prevent allergies and flu?
Allergies can be prevented by avoiding allergens such as dust, pollen, pet dander, cigarette smoke, and food. The most effective way to prevent the flu is to get the flu vaccine every year. A flu vaccine is needed this often because flu viruses are constantly changing. It’s not unusual for new flu viruses to appear each year. The flu vaccine is formulated to keep up with the flu viruses as they change. Washing hands often, avoiding close contact with someone who has the flu, and covering the mouth when coughing or sneezing are other ways to prevent the flu.

Additional Resources
APIC—Why should I get a flu shot? http://www.apic.org/For-Consumers/Monthly-alerts-for-consumers/Article?id=why-should-i-get-a-flu-shot
CDC—Keys facts about influenza (flu) http://www.cdc.gov/flu/keyfacts.htm
CDC—Flu symptoms and complications http://www.cdc.gov/flu/about/disease/complications.htm
AHA—United against the flu http://www.advancinghealthinamerica.org/flu/
NFID—Influenza http://www.nfidi.org/idinfo/influenza

Updated: 10/24/2016
How to be a good visitor during flu season

Keeping your loved ones healthy during their healthcare stay is a priority. If you’re visiting a friend or family member, it’s important to be a good visitor and employ the basic principles of infection prevention. This is especially true during flu season.

According to the CDC, influenza (the flu) is a serious respiratory disease caused by influenza viruses, which can cause mild to severe illnesses. Seasonal influenza activity can begin as early as October and continue to occur as late as May. The flu is associated with approximately 200,000 hospital admissions, and as many as 49,000 deaths annually in the United States. Everyone 6 months of age and older should get a flu vaccine.

In order to prevent the spread of the flu and other illnesses, most healthcare facilities have policies in place that limit visitors during the flu season. Often times, these policies prohibit visitors who are 12 years of age and younger. This is because children often carry viruses without exhibiting any signs or symptoms of illness.

Who is vulnerable to illness?
Although everyone is a healthcare patient at one point or another in their lives, some are at a higher risk of getting sick when they’re exposed to illness, including:

- People aged 65 years and older
- People who are immunocompromised such as those with HIV, hepatitis, and cancer
- Pregnant women
- People who live with, or care for, the immunocompromised or elderly
- People who have chronic medical conditions such as, asthma, diabetes, heart disease, and lung disease

How do you prevent the spread of illness?
There are a few simple things you can do to prevent spreading viruses to others. Always follow these steps when you are visiting a healthcare facility:

- Cover your mouth and nose when you cough or sneeze.
- Clean your hands often—especially before entering and after exiting the hospital room.
- Use soap and water to wash your hands or an alcohol-based hand rub to disinfect your hands.
- Avoid touching your eyes, nose, or mouth.
- Get your flu shot. The best way to prevent the flu and spreading illness is by getting vaccinated each year.
Chickenpox versus shingles—What’s the difference?

**Did you know?** The same virus that causes chickenpox also causes shingles. Although shingles and chickenpox are caused by the same virus, they are not the same illness. Chickenpox is usually a milder illness that affects children. Shingles results from a reactivation of the virus long after the chickenpox illness has disappeared.

The chickenpox virus stays in the body even after recovery. Later in life, the virus can reactivate and cause shingles. If you have shingles, you can spread the varicella virus to people who have never had chickenpox or never received the chickenpox vaccine. These people will develop chickenpox, not shingles. It takes from 10 to 21 days after exposure to chickenpox or shingles for someone to develop chickenpox.

<table>
<thead>
<tr>
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<th>Chickenpox (Varicella)</th>
<th>Shingles (Herpes Zoster)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What are the symptoms?</strong></td>
<td>• Initial symptoms include sudden onset of fever, headache, and feeling tired.</td>
<td>• The first sign is often a tingling feeling on the skin, itchiness, or a stabbing pain.</td>
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<td></td>
<td>• An itchy blister-like rash, usually starting on the face, chest or back, follows 1-2 days later.</td>
<td>• After several days, a rash appears, beginning as a band or patch of raised dots on the side of the trunk or face or other areas of the body.</td>
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<td>• The rash then spreads to the rest of the body, and new blisters continue to appear for about 3-4 days.</td>
<td>• It then develops into small, fluid-filled blisters which begin to dry out and crust over within a few days.</td>
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<td></td>
<td>• Generally, within 1 week, the blisters dry out and scabs form and fall off.</td>
<td>• When the rash is at its peak, symptoms can range from mild itching to extreme and intense pain.</td>
</tr>
<tr>
<td><strong>How contagious is it?</strong></td>
<td>Chickenpox is very contagious. The virus can spread by breathing in the viral particles that come from the blisters. It can also be spread by direct contact with the fluid of skin lesions. A person with chickenpox can spread the disease from 1 to 2 days before they get the rash, until all their chickenpox blisters have formed scabs.</td>
<td>Shingles cannot be passed from one person to another. Someone with an infectious shingles rash can spread chickenpox if the other person has never had chickenpox. However, someone with shingles will not cause another person to develop shingles.</td>
</tr>
<tr>
<td><strong>Is there a vaccine?</strong></td>
<td>There are two vaccine options: • Two doses of the varicella vaccine. • A combination vaccine called MMRV (measles, mumps, rubella, and varicella).</td>
<td>CDC (Centers for Disease Control and Prevention) recommends that healthy adults 50 years and older get the shingles vaccine</td>
</tr>
<tr>
<td><strong>How can the disease be prevented?</strong></td>
<td>The best way to prevent chickenpox and shingles is to get vaccinated. • Avoid direct contact with a person infected with chickenpox or shingles. • Cover the rash. • Avoid touching or scratching the rash. • Clean your hands often.</td>
<td></td>
</tr>
</tbody>
</table>

Additional resources
- The CDC—Chickenpox [www.cdc.gov/chickenpox](http://www.cdc.gov/chickenpox)
- The CDC—Shingles [www.cdc.gov/shingles](http://www.cdc.gov/shingles)
- The CDC—Handwashing [https://www.cdc.gov/features/handwashing/](https://www.cdc.gov/features/handwashing/)
What is chlamydia?
Chlamydia (kluh-MID-ee-uh) is one of the most common sexually transmitted diseases (STD) in the United States. This bacterial disease can infect the penis, vagina, anus, urethra, eye, or throat and may result in serious health problems. It is estimated that almost 3 million chlamydia infections occur in the U.S each year. Teens and young adults have the highest rates of infection.

How is chlamydia spread?
Chlamydia is spread by unprotected vaginal, anal, or oral sex. It can also spread from an infected woman to her baby during birth.

What are the symptoms of chlamydia?
Most people infected with chlamydia have no signs or symptoms of disease and people may not be aware that they have been infected. Chlamydia can lead to severe long-term complications even when it causes no symptoms.

Symptoms in women include:
- vaginal discharge
- abdominal pain
- low-grade fever
- pain or a burning feeling while urinating
- swelling inside the vagina or around the anus
- painful intercourse
- vaginal bleeding after intercourse
- bleeding between periods

Symptoms in men include:
- burning sensation when urinating
- discharge from the penis or rectum
- swollen or tender testicles
- swelling around the anus

How is chlamydia diagnosed?
A doctor can diagnose chlamydia through:
- A swab test, where a fluid sample from an infected site (cervix or penis) is tested for the bacteria
- A urine test, where a urine sample is tested for the bacteria

**Pap smears cannot detect chlamydia."
Clean your home to prevent winter illness

As colder weather settles in and we spend more time indoors in enclosed spaces, it is time to think about winterizing our homes and cleaning dust and dirt which carry germs. A few simple tips can make the daunting task easier and provide for a cleaner environment for you and your family -- limiting the spread of cold and flu germs and other types of infections. Start at the top and work down...second floor to first floor to basement. Remember to make cleaning a family affair. Keeping a home clean should be shared by all members of the family.

Ready? Let’s get started!

• Focus on public rooms: living room, family room, entryway, and guest baths because these are used by everyone who visits.
• Use a bleach solution to clean bathroom floors, countertops, toilets, sinks, and other surfaces. Chlorine bleach is effective in killing stomach viruses such as norovirus.
• Go with gravity: Clean from top to bottom. Vacuum drapes and window treatments. Clean window sills and window wells. Then vacuum baseboards and corners.
• Don’t forget to clean high touch areas such as remote controls, light switches, computers including keyboards, etc. Germs can live on surfaces carrying them to the next user.
• Vacuum upholstered furniture, or have professionally cleaned if needed. Move furniture and vacuum beneath and behind it. Remember the lampshades, fan blades, and chandeliers that collect dust.
• Wash interior windows.
• Turn mattresses front-to-back and end-to-end to equalize wear and vacuum mattress and box springs.
• Launder or clean all bedding: mattress pads, pillows, duvets, blankets, comforters. Tuck the family into a warm and cozy winter bed.
• Deep clean carpeting and hardwood floors or schedule professional carpet cleaning.
• Prepare the kitchen for holiday cooking. Clean and organize kitchen cabinets, paying particular attention to baking supplies, pans, and equipment. Toss items that have not been sealed properly or are beyond shelf life.
• Pull refrigerator away from the wall, and vacuum the condenser coils. For bottom-mounted coils, use a long, narrow brush to clean coils of dust and debris.
• Wash light-diffusing bowls from light fixtures.
• If you have a central vacuum system, check and empty it.
• Clean electronic air cleaner elements monthly for most efficient operation. Wash them in an empty dishwasher (consult manual for specific product recommendations).
• Clean or replace humidifier elements before the heating season begins.
• Inspect washer hoses for bulges, cracks or splits. Replace them every other year.
• Check dryer exhaust tube and vent for built-up lint, debris or birds' nests! Make sure the exterior vent door closes tightly when not in use.
• Buy a winter’s supply of furnace filters. Change filters monthly for maximum energy savings and indoor comfort. When the right filter is on hand, it’s an easy job!
• Drain sediment from hot water heaters.

Above all, remember the importance of hand hygiene and its ability to prevent the spread of infections.

Additional resources
APIC – Your home http://consumers.site.apic.org/infection-prevention-in/your-home/
Germy gloves and scarves—*Oh, my!*

Winter is coming, and with that, comes colder weather. And during the cold weather season, it’s common to see many runny noses, coughs, sore throats, and respiratory infections such as the flu.

Be honest: Have you ever used your scarf or gloves to wipe your nose or cover a sneeze/cough when a tissue wasn’t available? *Oh, my!* And then with your runny nose-contaminated glove, you touch a steering wheel, doorknob, public transit railing, or seat—all the time spreading the germs to others.

Then, with your contaminated scarf that you used to cover a cough or a sneeze, you offer it to your child because she is colder than you are or hang it up in the office next to co-workers belongings. This is called cross contamination. *Oh, my!*

And do you take your gloves off with your teeth? If you do, the germs from your gloves are going right into your mouth. *Oh, my!*

Think about this—if you don’t wash your hands when appropriate, like after using the bathroom, then put your gloves on, the INSIDE of the glove is now contaminated. *Oh, my!*

**You wash your hands, right?**
Also remember to wash your gloves and scarves on a regular basis, preferably once per week or when soiled.

It stands to reason that gloves and scarves are just as germy as other fabrics that haven’t been cleaned—maybe more so because they are less likely to be cleaned on a routine basis. Leather and suede gloves would most likely need to be dry cleaned, and knit gloves would probably not fare too well in the washing machine. But think about how germy they are after people cough, sneeze, and wipe their noses with their gloves and scarves!

Most germs will survive for two or three days on inanimate objects—some longer. They don’t have to look soiled or smell bad to be loaded with germs either!
What is conjunctivitis?
Conjunctivitis, also known as pink eye, occurs when the conjunctiva (the white part of the eyeball and the inner eye lid) is irritated by an infection or allergies. Conjunctivitis is highly contagious and can be caused by several different types of viruses and bacteria. It can occur with colds or symptoms of a respiratory infection, such as a sore throat. Wearing contact lenses that aren’t cleaned properly, or aren’t your own, can cause bacterial conjunctivitis.

How does conjunctivitis spread?
Conjunctivitis is most often spread through direct contact with the eye by hands or objects that are contaminated with the virus or bacteria. It can also spread via respiratory tract droplets. Allergic conjunctivitis is not contagious.

Who is at risk for contracting conjunctivitis?
Persons who are most at risk for contracting conjunctivitis are those with exposure to someone infected with viral or bacterial conjunctivitis, contact with a known allergic irritant, and contact lens wearers. Outbreaks of conjunctivitis are common with children in daycare and school settings.

What are the symptoms of conjunctivitis?
Conjunctivitis can occur in one or both eyes. Symptoms of conjunctivitis include: redness, itchiness, a gritty feeling, excessive tearing, or a discharge that forms a crust that may prevent your eye or eyes from opening in the morning.

How is conjunctivitis treated?
Treatment for conjunctivitis is typically focused on symptom relief. Artificial tears and eye compresses may alleviate symptoms. Contact lens wearers may need to stop wearing contacts until the infection resolves. Antibiotic eye drops are typically not needed as most cases of conjunctivitis are caused by a virus; however, they may be prescribed for infections suspected to be caused by bacteria or herpes simplex virus. Allergic conjunctivitis may be treated with medications that help control allergic reactions, such as antihistamines and mast cell stabilizers, or drugs that help control inflammation, such as decongestants, steroids, and anti-inflammatory drops. While conjunctivitis can cause unpleasant symptoms and unsightly discharge, it is typically not a serious infection and resolves without long term effects.

How can you prevent conjunctivitis?
Conjunctivitis can be prevented by practicing diligent hand hygiene, avoiding touching your eyes with your hands, using a clean towel and washcloth daily, avoiding sharing of towels or washcloths, washing or changing pillowcases often, and avoiding sharing eye cosmetics or personal eye care items.

Using conscientious hand hygiene when handling contact lenses and discarding disposable contact lenses as recommended can also prevent conjunctivitis. It is also important to stay home from school and work until eye discharge has resolved to prevent spreading the infection to others.

Additional resources
- The CDC—Symptoms of conjunctivitis https://www.cdc.gov/conjunctivitis/about/symptoms.html
Gonorrhea—A sexually transmitted disease with growing resistance

What is gonorrhea?
Gonorrhea is a common sexually transmitted disease caused by *Neisseria gonorrhoeae*. Gonorrhea can cause infections in the mucous membranes of the genitals, rectum, and throat. The Centers for Disease Control and Prevention (CDC) estimates that approximately 820,000 new gonococcal infections occur in the United States each year.

Gonorrhea has progressively developed resistance to nearly every drug used to treat it and has been labeled an urgent public health threat by the CDC.

How does gonorrhea spread?
Gonorrhea can spread during vaginal, anal, or oral sexual contact. Pregnant women with gonorrhea can pass along the infection to their babies during childbirth.

Who is at risk for gonorrhea?
Anyone who is sexually active can get gonorrhea. It is more common among sexually active teens and young adults ages 15-24.

What are the symptoms of gonorrhea?
Most men and women infected with gonorrhea do not show symptoms. And sometimes the symptoms are mistaken for a different infection. If symptoms are present, they could include increased discharge, pain, burning, or sometimes vaginal bleeding.

What are the complications of untreated gonorrhea?
If untreated, gonorrhea can lead to serious complications in males and females. In women, untreated gonorrhea can spread, causing pelvic inflammatory disease. This can lead to infertility and increased risk of ectopic pregnancy. In men, untreated gonorrhea can also lead to infertility. Additionally, the infection can spread to the blood, causing disseminated gonococcal infection (widespread infection throughout the body) and can be life-threatening.
Hepatitis
Hepatitis is inflammation of the liver that may be caused by viruses, drugs, alcohol, or some hereditary or immune problems. The most common types of hepatitis are A, B, and C. In the United States, the most common type of viral hepatitis is hepatitis C.

Hepatitis C
Hepatitis C is a viral disease that is caused by the hepatitis C virus. An infection with this virus will affect the way the liver is supposed to function. Many people who have hepatitis C experience the following symptoms:
- Jaundice (yellowing of the eyes or skin)
- Poor appetite
- Fatigue
- Abdominal pain
- Nausea and vomiting
- Dark urine
- Clay colored stools
- Joint pain
Some people will have few or even no symptoms of infection.

Hepatitis C is a serious illness. About 75 to 85 percent of people infected with hepatitis C will develop a chronic, long-term illness. About 60 to 70 percent of patients with chronic hepatitis C will develop liver disease, from 5 to 20 percent will develop cirrhosis of the liver and 1 to 5 percent will develop liver cancer.

Many people may experience no symptoms of this viral infection until liver damage begins to appear. Even though a person may not have symptoms, they may still be able to spread the virus to others. Hepatitis C is spread when infected blood enters another’s bloodstream. This can happen in many ways including:
- Getting a tattoo with a contaminated needle
- Sharing dirty needles
- Having sexual contact with someone who has hepatitis C (in rare cases)
- From mother to child at birth
- Blood or organ transfusions (rare since 1992)

Hepatitis B
Hepatitis B is also a viral infection that is caused by the hepatitis B virus (HBV). Symptoms of hepatitis B are similar to the symptoms of hepatitis C listed above. Like hepatitis C, hepatitis B is transmitted when blood, semen, or another body fluid from a person infected with the hepatitis B virus enters the body of someone who is not infected. This can happen through sexual contact; sharing needles, syringes, or other drug-injection equipment; or from mother to baby at birth. For some people, hepatitis B is an acute, or short-term, illness but for others, it can become a long-term, chronic infection. Risk for chronic infection is related to age at infection. Approximately 90 percent of infected infants become chronically infected, compared with 2 to 6 percent of adults. Chronic hepatitis B can also lead to serious health issues, like cirrhosis or liver cancer.
Hepatitis A

Hepatitis A is a vaccine-preventable, viral infection that causes inflammation of the liver. It is usually a mild illness, but in some instances, it can cause severe liver damage. A person can get hepatitis A by ingesting food or drink contaminated with fecal matter, or by coming in contact with an object that was contaminated with feces (stool) from a person who has hepatitis A.

How does hepatitis A spread?
Hepatitis A is highly contagious and spreads from person-to-person:
- When an infected person does not properly wash his or her hands after going to the bathroom and touches other objects or food;
- When a parent or caregiver does not properly wash his or her hands after changing diapers or cleaning up the stool of an infected person;
- When someone has sex or sexual contact with an infected person; or
- When someone travels to, or lives in, an area where hepatitis A is common.

Hepatitis A is most commonly spread by eating or drinking food or water that is contaminated with the virus. This is more likely to occur in countries with poor sanitation or personal hygiene. The food and drinks most likely to be contaminated are fruits, vegetables, shellfish, ice, and water. In the US, the chlorination of the water can kill the hepatitis A virus that enters the water supply.

What are signs and symptoms of hepatitis A?
Some people, especially children, have no symptoms of illness. Common symptoms include fever, fatigue, loss of appetite, nausea/vomiting, abdominal pain, dark urine, clay-colored bowel movements, joint pain, and jaundice (yellowing of the skin or eyes).

These symptoms can occur two to six weeks after exposure and usually last less than two months, but may last for as long as six months. Even though a person has no symptoms, they are still able to transmit the virus to others. In rare cases, hepatitis A can cause serious liver disease, and even liver failure. While there is no treatment for hepatitis A, rest, adequate nutrition, and hydration are recommended.
Herd immunity

What is herd immunity?
Herd immunity (or community immunity) occurs when a high percentage of the community is immune to a disease (through vaccination and/or prior illness), making the spread of this disease from person to person unlikely. Even individuals not vaccinated (such as newborns and the immunocompromised) are offered some protection because the disease has little opportunity to spread within the community.

Vaccines prevent many dangerous and deadly diseases. In the United States, smallpox and polio have both been stamped out because of vaccination. However, there are certain groups of people who cannot get vaccinated and are vulnerable to disease: babies, pregnant women, and immunocompromised people, such as those receiving chemotherapy or organ transplants. For example, the earliest a baby can receive their first pertussis or whooping cough vaccine is at two months, and the earliest a child can receive their first measles vaccine is at one year, making them vulnerable to these diseases.

Herd immunity protects the most vulnerable members of our population. If enough people are vaccinated against dangerous diseases, those who are susceptible and cannot get vaccinated are protected because the germ will not be able to “find” those susceptible individuals.

Why are there still outbreaks of vaccine-preventable diseases?
Measles was declared eliminated in 2000. Yet in 2014, there were 668 cases reported. The disease was spread when infected people traveled to the United States. These infected people then exposed unprotected people to the disease. There are a number of reasons why people are unprotected: some protection from vaccines “wanes” or “fades” after a period of time. Some people don’t receive all of the shots that they should to be completely protected. For example you need two measles, mumps, and rubella (MMR) injections to be adequately protected. Some people may only receive one and mistakenly believe they are protected. Some people may object because of religious reasons, and others are fearful of potential side effects or are skeptical about the benefits of vaccines.
Infection prevention outside the hospital

We know that hospital rooms can harbor germs that can cause serious infections, especially for elderly or immunocompromised patients. But did you know that germs and infections live everywhere, even out in the community? We all play a part in keeping loved ones safe and cared for at home and while eating out.

Hand hygiene is essential

Wash or sanitize your hands after you come home from public places. Wash hands before preparing food or eating, between handling uncooked fruit and vegetables, raw meats, and after toilet use. If there are babies and toddlers in the household, remember that the floor becomes an important source of potential germs as children crawl, lie and sit on the floor. Proper cleaning and disinfecting is important, as well as remembering to wash children’s hands with soap and running water frequently, especially before they eat. Try some creative ideas to make hand hygiene as fun as water play.

Use cleaners and disinfectants wisely

A cleaner and a disinfectant are not the same thing. What you use to clean and disinfect surfaces is as important as how you use them. Some products clean, some disinfect, and some do both jobs. The product you choose needs to match the job you need to accomplish.

Cleaners. Cleaners include soap and detergents, which help remove debris on surfaces using bubbles and friction. Scrubbing or a bit of “good old elbow grease” is an important part of cleaning a surface. Washing machines create this by the agitation of the wash cycle. In order to properly disinfect a surface, it must be cleaned before disinfectants are used.

Disinfectants. All disinfectants are not created equally. It is important to pay attention to the type of disinfecting you need to do and what you need to disinfect. It is important to choose the right disinfectant for the right surface. *How long does the disinfectant need to sit on this surface to do the job?* Different disinfectants have different levels of ability to kill germs and need to be left on surfaces for varying length of times. This time can range from about 1 minute to up to 10 minutes. Concentration levels are also a factor in how long the disinfectant will take to be effective, so following label instructions is important. Also be sure to change cleaning and disinfecting solutions and cleaning cloths frequently.

Care with cleaning and disinfecting chemicals

It is also important to understand that chemical reactions from cleaners/disinfectants can be hazardous to humans and pets. Do not mix chemicals. Store cleaning products carefully and out of the children’s reach. While it’s important to keep your household clean, it’s also important to keep children safe from hazardous chemicals.

Focus on kitchens and bathrooms

Hard, smooth kitchen surfaces such as sinks and counters are easier to disinfect than the rough, porous surfaces of wood cutting boards, sponges and dishrags. The Centers for Disease Control and Prevention (CDC) recommends washing countertops with a solution of 1 teaspoon of chlorine bleach mixed in 1 quart of water or with a commercial kitchen-cleaning/disinfecting agent mixed according to label directions.
Influenza

Seasonal influenza, often referred to simply as “the flu,” is associated with approximately 200,000 hospital admissions and as many as 49,000 deaths annually in the United States, according to the Centers for Disease Control and Prevention (CDC). Some people, such as older people, young children, and people with certain health conditions, are at high risk for serious flu complications.

The flu is caused by influenza viruses, which target respiratory areas such as the nose, throat, and lungs. This virus can cause severe illness and even life-threatening complications. In the United States, an estimated 5 to 15 percent of the population is affected by the virus each year. The flu can live on surfaces between two to eight hours.

There is still time to get your flu shot. Even healthy people can get sick enough to miss work or school for a significant amount of time or even be hospitalized. Flu activity usually peaks in the U.S. in January or February. However, seasonal flu activity can begin as early as October and continue to occur as late as May.

Flu symptoms include:
- A 100 degree F or higher fever or feeling feverish (not everyone with the flu has a fever)
- A cough and/or sore throat
- A runny or stuffy nose
- Headaches and/or body aches
- Chills
- Fatigue
- Nausea, vomiting, and/or diarrhea (most common in children)

Get vaccinated
The best way to prevent the flu is by getting vaccinated each year. A flu vaccine is needed this often because flu viruses are constantly changing. It’s not unusual for new flu viruses to appear each year. The flu vaccine is formulated to keep up with the flu viruses as they change.

Who should get vaccinated this season? Everyone who is at least 6 months of age should get a flu vaccine. It’s especially important for some people to get vaccinated. Those people include the following:
- People who are at high risk of developing serious diseases like pneumonia if they get sick with the flu
- People who have certain medical conditions including asthma, diabetes, and chronic lung disease.
- Pregnant women
- People 65 years or older
- People who live with or care for others who are at high risk of developing serious complications from the flu (e.g., immunocompromised people, the elderly)
- Household contacts and caregivers of people with certain medical conditions including asthma, diabetes, and chronic lung disease
- People with HIV
- People with cancer
- People with heart disease and those who have had a stroke
Should I wear a facemask during flu season?

Have you ever seen someone wearing a facemask in the street or on public transportation? You may wonder, “Should I wear a facemask during flu season or while on a plane?”

The short answer to this question is probably, “No.” For most people, covering your mouth when coughing and sneezing, and frequent hand washing—with warm water and soap, or alcohol-based hand sanitizer—is a much better way to prevent illness than wearing a facemask out in public. The best way to prevent flu is by getting vaccinated each year. An annual flu vaccine is necessary because flu viruses are constantly changing.

Some people choose to wear a facemask because of concern for respiratory viral infections like Middle East Respiratory Syndrome (MERS) or the flu. However, scientific studies disagree on how effective wearing a facemask can be. And the Centers for Disease Control and Prevention (CDC) does not recommend that most people need to routinely wear facemasks in public places to avoid common (and even not so common) viruses.

There are instances where you may be advised by your primary care provider to wear a facemask; for example, if you have a weakened immune system or are undergoing chemotherapy. You may also be asked to wear a facemask when visiting someone in the hospital. In this case, the staff will instruct you on what particular facemask to use and how to properly wear it.

Your best bet to keep germs from spreading is to keep your hands clean, cover your cough, and stay home if you feel ill. And to prevent the flu, make sure every member of the family gets an annual flu vaccine.

Additional resources
United Against the Flu—American Hospital Association http://www.advancinghealthinamerica.org/flu/
Influenza—National Foundation for Infectious Diseases http://www.nfid.org/influenza
Seasonal Influenza: Flu Basics—CDC http://www.cdc.gov/flu/about/disease/index.htm
Mask guidance—CDC http://www.cdc.gov/flu/professionals/infectioncontrol/maskguidance.htm
Influenza and pneumococcal immunization—APIC consumer alert http://www.apic.org/For-Consumers/Monthly-alerts-for-consumers/Article?id=influenza-and-pneumococcal-immunization
How to be a good visitor—APIC Infection Prevention and You http://consumers.site.apic.org/infection-prevention-basics/how-to-be-a-good-visitor/
Clean your hands often—APIC Infection Prevention and You http://consumers.site.apic.org/infection-prevention-basics/wash-your-hands-often/

Updated: 10/20/2015
Meningococcal disease: What it is and how to prevent it

What is meningococcal disease?
Meningococcal disease is any infection caused by the bacterium *Neisseria meningitidis*. It can cause bloodstream infections or meningitis—an inflammation in the lining that covers the brain and spinal cord. The type of meningitis that is caused by meningococcal disease is referred to as *meningococcal meningitis*. It will strike otherwise healthy individuals and can cause devastating illness—even death.

Death can occur in as little as a few hours. In non-fatal cases, permanent disabilities can include hearing loss, brain damage, and loss of fingers or toes. The Centers for Disease Control and Prevention (CDC) recommends that all preteens and teens get the meningococcal vaccine.

How does meningococcal disease spread?
Meningococcal disease is spread from person to person. The bacteria are spread by exchanging saliva (respiratory or throat secretions) with someone who has meningococcal disease or who is a carrier. It’s possible to get it by kissing, sharing drinking glasses or toothbrushes, or being in very close contact while coughing. It is not spread by casual contact or by simply breathing the air where a person with meningococcal disease has been.

What are symptoms of meningococcal meningitis?
Symptoms of meningococcal meningitis include sudden onset of fever, headache, and stiff neck. These often come with by nausea, vomiting, an increased sensitivity to light (called photophobia), or a change in mental status. Symptoms can come on quickly or over several days. Typically they develop within three to seven days after exposure.

What are symptoms of a bloodstream infection?
Meningococcal disease can also cause bloodstream infections. A bloodstream infection causes damage to the walls of the blood vessels. Symptoms of this include fatigue, vomiting, cold hands and feet, chills, severe aches in the muscles, joints or abdomen, rapid breathing, diarrhea, and the development of a dark purple skin rash.

Who is at risk for meningococcal disease?
The following people are at high-risk for meningococcal disease and should get vaccinated:
- College students living in a dormitory
- Military recruits
- Anyone with a damaged spleen or no spleen
- Anyone with an immune system disorder
- Microbiologists who are routinely exposed to *Neisseria meningitidis* (the bacteria that causes meningococcal disease)
- Anyone traveling or residing in countries in which the disease is common
- Anyone with a weakened immune system
- Anyone who has skipped routine recommended vaccinations
Mumps: A vaccine-preventable disease on the rise

What is mumps?
Mumps is a contagious disease caused by a virus. It is spread from person-to-person via direct contact or by droplets of saliva from the mouth, nose, or throat of an infected person, typically when the infected person coughs, sneezes, or talks. The virus may also spread if the infected person touches items or surfaces without washing their hands, and then someone touches those contaminated surfaces and then touches their mouth or nose.

Prior to the vaccine development in 1967, over 186,000 people got the mumps every year in the United States. After the introduction of the vaccine there was nearly a 99 percent decrease in cases of mumps. The vaccine is most often combined in the measles-mumps-rubella (MMR) vaccine. Recently, there have been a number of outbreaks of mumps most often on college campuses.

What are symptoms of mumps?
Mumps primarily affects the salivary glands (glands that produce saliva in the mouth). The main salivary gland is located at the angle of the jaw, just below the ear. During a mumps infection these glands may swell and become painful and tender. Initial symptoms of the mumps are headache, tiredness, and fever, followed within a day by the characteristic swelling of the salivary glands causing puffy cheeks. A small percentage of people with the mumps have no symptoms at all.

To diagnose mumps a swab is taken from inside the patient’s cheek; sometimes a blood sample is also taken.

What are complications of mumps?
Mumps is generally a mild childhood disease, most often affecting children between 5 and 9 years old. However, the mumps virus can infect adults as well. When it does, possible complications are more likely to be serious. Complications of mumps can include meningitis (in up to 15 percent of cases), swelling of the testes in men, and deafness. Very rarely, mumps can cause encephalitis and permanent neurological damage. If a woman contracts mumps in her first trimester of pregnancy there is an increased risk of having a miscarriage, however there is no evidence of birth defects in children whose mothers contracted mumps during pregnancy.

Is there a treatment for mumps?
There is no specific treatment for the mumps, but you can keep the patient comfortable with over-the-counter pain medication as directed by the patient’s healthcare provider. A hot or cold pack may offer relief: place cool packs on the swollen cheeks (ice cubes in a plastic bag, wrapped in a towel). Some patients may prefer a warm towel on the affected area. Offer non-acidic liquids to drink (avoid orange juice, lemonade) and give soft foods that don’t require chewing.
Preventing infections when visiting the nail salon or tattoo parlor

If you’re thinking about heading to the nail salon for a little pampering or getting a new tattoo, follow these infection prevention strategies to decrease your risk of getting an infection.

Nail salon
Treating yourself to a manicure or pedicure at the nail salon can be relaxing and rejuvenating. But did you know that without proper precaution, you are putting yourself at risk for infection? The skin on our hands and feet can easily be nicked and cut—sometimes without even our knowing—and whenever an open wound is exposed to skin-skin or skin-surface contact, you have a chance of picking up bacteria, fungi, or viruses that can develop into an infection. The most common infections acquired at the nail salon are warts and nail fungus. Follow these infection prevention strategies to decrease your risk:

1. Do not get a manicure or pedicure if you have an infection on your hands or feet.
2. Do not get a manicure or pedicure if you have any open wounds, including bug bites, bruises, scratches, cuts, scabs, and poison ivy.
3. Look for a license. In the United States, the salon must be approved by the state health department and the nail technician should have a certificate from the board of cosmetology. The license means the salon is equipped to give a manicure or pedicure cleanly, but it does not guarantee the salon will do so on the day of your visit.
4. If considering a “fish pedicure” or “fish spa” where a tub of water is filled with small fish called *Garra rufa* that eat away dead skin on the client’s feet, know that there are infection risks involved and that several states have banned the use of fish pedicures for various reasons.
5. Don’t shave before getting a pedicure. Newly shaved legs can have tiny nicks you can’t see that are susceptible to infections.
6. You and the nail technician should perform hand hygiene before beginning the manicure.
7. The nail technician should wear gloves and perform hand hygiene before donning and after removing.
8. Skip the cuticle pushing and clipping. Our cuticles are what separate us from the rest of the world—bacteria, fungi, and viruses.
9. The metal tools the nail technicians use should be heat-sterilized in a sterilizer (also called an autoclave). Some salons will use chemical solutions (e.g., Barbicide) or UV light boxes to disinfect tools, which is legal and standard but not totally effective in killing all of the germs. Nail salon tools like pumice stones, emery boards, nail buffers, and foam toe separators cannot be properly sterilized so they should be disposed of after each use. Bring your own equipment and clean and disinfect it between uses with alcohol or hydrogen peroxide.
10. Whirlpool footbaths—although seemingly safe—are difficult to clean and filled with city water, which may or may not be free of germs. Even though nail salons disinfect their tubs, research has shown that germs can be trapped in the equipment and have been linked to infections. Use plastic liners or trash bags in the footbaths to add an extra layer of infection protection. If your salon doesn’t use a liner, bring your own.
11. Don’t allow the technician to shave your skin calluses. If your calluses are thick and uncomfortable, opt for a deep soak (often with a chemical solution) and scrubbing to remove them.
Nightmare Bacteria: What are they, and what can I do?

Perhaps you’ve heard about drug-resistant “Superbugs” in the news. These new threats we are facing now are called “Nightmare Bacteria.” Some of these germs include: Vancomycin-resistant *Staphylococcus aureus* (VRSA), *Candida auris*, and carbapenem-resistant Enterobacteriaceae (CRE).

Nightmare bacteria are resistant to all antibiotic treatments and can share their genes for resistance with other germs. When bacteria do not respond to antibiotics, it makes them extremely hard to treat. A recent report from the Centers for Disease Control and Prevention (CDC), counted more than 200 cases of nightmare bacterial infections in 2017. Additionally, the CDC estimates that more than 23,000 Americans die a year related to antibiotic-resistant infections. The CDC explains that nightmare bacteria spread like wildfire and have special genes that allow them to share their resistance to other germs.

In order to get sick from nightmare bacteria, a person must be exposed to it. Nightmare bacteria are more likely to occur in healthcare settings, so patients with indwelling devices, such as catheters, tubes, or drains, may be most vulnerable. Nightmare bacteria can cause a variety of illnesses, so symptoms may range from a wound that doesn’t heal to a bloodstream infection causing sepsis. It is also possible to not have any symptoms at all.

How do we wake up from this nightmare?

Because nightmare bacteria are virtually untreatable, prevention is key! The CDC’s Principal Deputy Director, Anne Schuchat, MD, stated the CDC’s strategy to contain nightmare bacteria appears to be working. “…With an aggressive response, we’ve been able to stomp [nightmare bacteria] out promptly, and stop their spread between people, between facilities, and between other germs,” Schuchat said.

It is possible for antibiotic resistance to spread between people, between facilities, and between germs. Hospitals and other healthcare environments should work with labs to rapidly identify and contain these germs, as well as improve infection prevention practices within their facilities.

Patients and their families can take these steps to protect themselves from infection in a healthcare facility:

1. Keep hands clean by washing with soap and water or using alcohol-based hand rubs.
2. Ask others to perform hand hygiene prior to touching you or your environment.
3. Tell your healthcare provider if you recently received care in another country or facility.
4. Discuss with your healthcare provider how you can take a more active role in preventing your risk for infection, especially with chronic conditions.
5. Learn the ABCs of antibiotics. Knowing when antibiotics are appropriate can help stop the spread of antibiotic resistant germs. [www.apic.org/ABCs-of-Antibiotics](http://www.apic.org/ABCs-of-Antibiotics)
Pertussis (also known as “whooping cough”)—A preventable disease on the rise

Pertussis, commonly known as whooping cough, is a serious respiratory illness characterized by an infectious cough. Although most of us were vaccinated against it as children, our ability to fight it off weakens, leaving us once again susceptible as adults. Pertussis is very contagious and can be quite serious, especially for infants less than one year of age.

Why is there a concern now?
Recently the number of pertussis cases has risen significantly, particularly in California where the state has declared it an epidemic. Pertussis outbreaks are also occurring in all 50 states and the District of Columbia. As of July 2014, the Centers for Disease Control and Prevention (CDC) has reported a 24 percent increase in pertussis cases compared with the same time period in 2013.

There are many factors that may account for the rise in pertussis cases:
• Not all babies are getting the vaccinations to protect them.
• Protection against whooping cough from early childhood vaccination decreases over time, and teens and adults can become infected repeatedly.
• Pertussis rates among adults have risen 400% since 1990.
• Children, teens, and adults with undiagnosed pertussis can spread the disease to others.

How is pertussis spread?
Pertussis is a year-round disease that peaks in fall and winter during cold and flu season. Caused by a germ found in the mouth, nose, and throat, it spreads when people with the illness cough or sneeze close to others who breathe in the droplets.

What are the signs and symptoms?
Pertussis usually starts with cold symptoms (runny nose, sneezing, mild fever, and cough). This is called stage 1 and lasts for about two weeks. In stage 2, the coughing becomes more severe and frequent, and the “whooping” sound is heard. (Hear the sound of the pertussis cough: http://www.cdc.gov/pertussis/pubs-tools/audio-video.html#pertussis-sounds).

People with pertussis may have 15-24 coughing attacks a day. After an episode, the person often vomits and feels very tired. Between episodes, there may be no signs of illness. This stage can last for weeks or months, which is why pertussis is sometimes called the “100-day cough.” Stage 3 lasts about 2-3 weeks, as the person gradually gets better with less and less coughing.

If you have been vaccinated, you can still get pertussis; however, the infection will be less severe. If you or your child develops a cold that includes a severe cough, or a cough that lasts for a long time, it may be pertussis. The best way to find out is to visit your doctor. If your doctor tells you that you have pertussis, your body will have a
Pneumonia immunization

Pneumococcal disease is an infection caused by Streptococcus pneumonia bacteria, sometimes referred to as pneumococcus. Pneumococcus can cause many types of illnesses, including pneumonia, blood infections, ear infections, and meningitis. There are vaccines to prevent pneumococcal disease in children and adults.

The best way to prevent pneumococcal disease is by getting vaccinated. The pneumococcal vaccine is a shot that helps protect against some of the more than 90 types of pneumococcal bacteria.

The vaccine for children, called pneumococcal conjugate vaccine (PCV13), protects against the 13 types of pneumococcal bacteria that cause most of the severe illness in children. The vaccine can also help prevent some ear infections. PCV13 protects children by preparing their bodies to fight the bacteria. Almost all children (about 9 children out of 10) who get PCV13 will be protected from the 13 types of pneumococcal bacteria in the vaccine. PCV13 is also recommended to help prevent pneumococcal disease in adults with certain medical conditions.

The pneumococcal polysaccharide vaccine (PPSV23) protects against 23 types of pneumococcal bacteria. It is recommended for all adults 65 years and older and for anyone who is 2 years and older at high risk for disease, including those:

- With chronic illnesses (lung, heart, liver, or kidney disease; asthma; diabetes; or alcoholism)
- With conditions that weaken the immune system (HIV/AIDS, cancer, or damaged/absent spleen)
- Living in nursing homes or other long-term care facilities
- With cochlear implants or cerebrospinal fluid (CSF) leaks (escape of the fluid that surrounds the brain and spinal cord)
- Who smoke cigarettes

Revaccination with PPSV23

- One-time revaccination 5 years after the first dose is recommended for anyone ages 19 to 64 with chronic renal failure or nephrotic syndrome; functional or anatomic asplenia (e.g., sickle cell disease or splenectomy); and for persons with immunocompromising conditions.
- Individuals who received 1 or 2 doses of PPSV23 before age 65 for any indication should receive another dose of the vaccine at age 65 or later if at least 5 years have passed since their previous dose.
- No further doses are needed for those vaccinated with PPSV23 at or after age 65.

BOTTOM LINE:

- Get your pneumonia immunization based on health history and age.
- Get revaccinated, if necessary.
- It is also important to get an influenza vaccine every year because having the flu increases your chances of getting pneumococcal disease.

Additional Resources
WebMD – Pneumococcal Vaccine [http://www.webmd.com/vaccines/pneumococcal-vaccine-schedule](http://www.webmd.com/vaccines/pneumococcal-vaccine-schedule)
CDC – Pneumococcal [http://www.cdc.gov/pneumococcal/about/facts.html](http://www.cdc.gov/pneumococcal/about/facts.html)
Parents and families are partners in preventing the flu

Did you know that even in early fall, influenza (also known as flu) viruses are circulating at low levels? In fact, flu outbreaks can happen as early as October. Flu is so highly contagious that it leads to thousands of hospitalizations each year and can even cause death. More than 600 children have died from the flu over the past four years. Kids most at risk are those with underlying conditions such as respiratory, cardiac, endocrine, gastrointestinal, metabolic conditions, genetic syndromes and those with neurologic or neurodevelopmental disorders.

While the flu spreads mainly in the fall and winter months, it’s hard to predict how severe the disease will be. During the 2012-2013 season, doctor visits for flu-like illness, hospitalization, and deaths were higher than in previous years. Child deaths from flu can be prevented through vaccination. Unfortunately, only 55 percent of children were vaccinated last season. Up to two-thirds of children receive their annual vaccination from their doctor’s office.

Protect infants: get your flu vaccine!
In the United States, approximately 4 million children are born each year. Infants less than six months old cannot receive the vaccine. That’s why it’s important for pregnant women to be vaccinated because when they are immunized, they pass the protection to their infants during the first six months of life. Protecting the young and vulnerable is known as “cocooning.” This means that everyone who comes in contact the vulnerable, including family members, household contacts, siblings and healthcare workers should be vaccinated.

Most parents know that children can easily spread viruses. The highest rates of transmission during outbreaks occur in school-aged children. During the 2009-2010 flu pandemic, 64 percent of children who died of the flu had a neurologic condition. Many may not realize that children with intellectual disabilities are especially prone to adverse effects of catching the flu.

Influenza can be a deadly disease for healthy children, most especially in the very young and those vulnerable with underlying health conditions. According to the CDC:

- Everyone 6 months and older needs flu vaccine every year.
- Remember, when a child is receiving the flu vaccination for the first time, two doses are needed to for the protection against the virus to be effective. Wait four weeks between the first and second dose.
- Two to three flu strains have changed from last season.
- Quadrivalent (four strains) flu vaccines now available.
- Children with egg allergies SHOULD be vaccinated. A special flu vaccine called Flublock does not contain any traces of egg. Talk to your healthcare provider about this option.

Additional Resources
Flu.gov – How the flu virus changes [http://www.flu.gov/about_the_flu/virus_changes/index.html](http://www.flu.gov/about_the_flu/virus_changes/index.html)
CDC – How the flu spreads [http://www.cdc.gov/flu/about/disease/spread.htm](http://www.cdc.gov/flu/about/disease/spread.htm)

Updated: 4/23/2014
How to be a good (and healthy) roommate

It’s that time of year again. School has started, and many young adults are heading off to college for the first time. There will be new adventures and experiences. One of these new experiences may include having a roommate. Another might be using a community bathroom and shower. Personal hygiene may not be a priority for everyone on your dorm floor, so we want to give you some tips on how to be a good roommate and how to stay healthy while you’re away at school.

Don’t let unwanted visitors in
Eating late night pizza in your dorm room is a rite of passage. It has to be done. But you should avoid keeping pizza boxes laying around with just a few bits of crust and the occasional pepperoni sliver. Leaving those around can attract bugs (mainly cockroaches) and possibly bigger things (such as mice and rats). All of these pests can carry diseases. In order to prevent these unwanted “visitors” in your room, don’t let your takeout boxes pile up. Keep your room clean to avoid attracting pests—and glares from your roommate.

Keep your germs to yourself
Sniffles, coughs, sneezes, aches, and chills just a few symptoms of flu. Flu season starts soon after school starts. Don’t wait until you start to feel crummy. Be proactive and get your flu shot as soon as it’s available. Getting the flu shot takes minutes, and it can save you from a week or more in bed, missing all of the fun fall activities. If you do need to cough or sneeze, cough into your elbow or sleeve. If you have mucous, cough or sneeze into a tissue and throw that away. Always remember to wash your hands afterwards.

For most things, sharing is caring. Sharing germs is not. In order to prevent sharing germs with your friends, it’s probably best to be a little selfish. Don’t share utensils, combs or brushes, toothbrushes, razors, drinking glasses/cups. And also be sure to use condoms (or other barriers) when having sex. You don’t want to run the risk of sharing things like meningitis, flu, hepatitis, HIV/AIDS, lice, or even the common cold.

If you have a community bathroom, it would be wise to make a cheap investment into some shower shoes. Fungus can grow in shower stalls. If you have even microscopic cracks on your feet, you can end up with a fungal infection if you don’t wear some flip-flops or another type of protective water shoe.
Scabies and lice – How nice!

Just the words scabies and lice can start to make you itch, but with a little knowledge on your side these common creepy crawlies can be treated and prevented.

Scabies
Anyone can get scabies — an infestation of the skin caused by a mite. The female mite burrows into the top layer of the skin. This forms a slightly raised tunnel where the mite lays eggs and leaves waste. The mite is passed from person to person by skin contact or by sharing bedding, clothing, or other linens with a person who has scabies. The most common symptom is an itchy rash. The rash usually itches most at night. It can appear anywhere on the body, but is usually on the hands, wrists, elbows, breasts, armpits, waistline, and groin. Persons who have never had scabies before usually notice symptoms about four to six weeks after contact with someone with scabies. Persons who have had scabies before may notice their symptoms sooner, often within a few days to one week. Elderly persons, persons in institutions, and persons whose immune system is weak may not feel itchy.

It is possible to spread scabies from the moment of first contact until after all treatment is completed. Persons with symptoms should be checked and treated by their doctor as quickly as possible. Scabies is diagnosed by a doctor or nurse looking at the rash and/or by taking a scraping from the skin. If you are diagnosed with scabies, a medicated cream will be prescribed by your doctor. It is put on the skin, left on for several hours, and then washed off. You must put on clean clothes and use freshly laundered bed and bath linens. An oral medication may also be prescribed. Household members and other persons with skin-to-skin contact should be preventively treated.

Clothing, bedding, and bath linens used within the four days before the start of medication should be washed in a washer using hot water and dried using the hot dryer cycle. Clothing and other items that cannot be laundered should be stored in a closed plastic bag for one week.

Head lice
Lice are parasitic insects that survive by feeding on human blood and can be found on people's heads and bodies.

Three types of lice live on humans and are associated with different areas of the body:
- Pediculus humanus capitis (head louse)
- Pediculus humanus corporis (body louse, clothes louse)
- Pthirus pubis (“crab” louse, pubic louse)

Head lice are most commonly spread through person-to-person contact, but can also be spread by sharing personal items such as combs and brushes. Lice move by crawling -- they cannot hop or fly. Head lice are small, about the size of a strawberry seed, have six legs and are tan to grayish-white in color. A head louse infests a person’s head or neck and attaches their nits (eggs) at the base of the hair shaft (near the scalp). Nits often look like dandruff, but unlike dandruff, lice cannot be easily combed out of hair. Human lice can not be transmitted by pets.
Is strep causing that sore throat?
“My throat hurts!” That’s not a phrase any parent wants to hear, and their first guess is often strep throat. Here’s what you need to know about strep throat and how to prevent it.

What is strep throat?
Strep throat (or Group A Streptococcal pharyngitis) is a common illness in children, but can affect people at any age. It is caused by the Group A *Streptococcus pyogenes* bacteria and usually starts with a sudden onset of sore throat, pain when swallowing, swollen lymph nodes in the neck, and fever. Also, small red or white spots can appear at the back of the throat or on the tonsils. Most cases happen in the winter and spring, but strep throat can occur at any time of year.

How does it spread?
The bacteria that cause strep throat are very contagious. Strep throat spreads through mucus droplets when a sick person coughs or sneezes, shares food and drink, or touches other surfaces (like doorknobs and toys) with unwashed hands. The germ can infect you when it comes in contact with your eyes, nose, or mouth.

How do healthcare providers test for strep? How is it treated?
Strep bacteria only cause a small portion of sore throats. Strep throat can be diagnosed by culturing the throat. A throat culture involves swabbing the throat and putting the swab in a special cup (culture) that allows bacteria to grow. Many doctors have the ability to perform a rapid test in the office to determine if the sore throat is caused by the strep bacteria (and needs treatment with antibiotics) or if it is a viral infection (which cannot—and should not—be treated with antibiotics). Many doctors also recommend an over-the-counter fever and pain reducer, such as acetaminophen (e.g., Tylenol) or ibuprofen (e.g., Advil and Motrin). Generally, most people begin to feel better within the first few days of treatment.

If left untreated, strep throat can spread to other places in the body and cause more serious illness, such as scarlet fever, rheumatic fever, or heart or kidney damage. But with prompt and appropriate treatment, there is very little risk of developing these more serious complications.

You can return to school or work after 24 hours of starting antibiotic treatment for strep throat. Until then, stay home to prevent spreading the infection to others. Be sure to take all of your medication exactly as prescribed (even if you are feeling better). Stopping antibiotics early can increase the risk of developing resistant bacteria, making your next infection much harder to treat.

How can you prevent strep throat?
The best thing you can do to avoid strep throat is to wash your hands and teach your children good hand washing practices. If you are sick, cover your cough by coughing and sneezing into your sleeve. Clean your hands after sneezing, coughing, touching your eyes, nose, or mouth, after using the restroom, and before and after eating or drinking. Avoid sharing eating utensils and drinks, and start making a habit of keeping your hands away from your face.

Additional resources
CDC—About Group A Strep [http://www.cdc.gov/groupastrep/about/index.html](http://www.cdc.gov/groupastrep/about/index.html)
CDC—GAS Frequently Asked Questions [http://www.cdc.gov/groupAstrep/about/faqs.html](http://www.cdc.gov/groupAstrep/about/faqs.html)
APIC—ABCs of Antibiotics [http://professionals.site.apic.org/files/2013/10/AntibioticInfographic14-FINAL.pdf](http://professionals.site.apic.org/files/2013/10/AntibioticInfographic14-FINAL.pdf)
APIC—Ask questions about your medications [http://consumers.site.apic.org/infection-prevention-basics/ask-questions](http://consumers.site.apic.org/infection-prevention-basics/ask-questions)

Updated: 3/10/2016
Five important reasons to vaccinate your child

You want to do what is best for your children. You know about the importance of car seats, baby gates and other ways to keep them safe. But, did you know that one of the best ways to protect your children is to make sure they have all of their vaccinations?

1. **Immunizations can save your child’s life.** Because of advances in medical science, your child can be protected against more diseases than ever before. Some diseases that once injured or killed thousands of children, have been eliminated completely and others are close to extinction—primarily due to safe and effective vaccines. One example of the great impact that vaccines can have is the elimination of polio in the U.S. Polio was once America’s most-feared disease, causing death and paralysis across the country, but today, thanks to vaccination, there are no reports of polio in the U.S.

2. **Vaccination is very safe and effective.** Vaccines are only given to children after a long and careful review by scientists, doctors, and healthcare professionals. Vaccines will involve some discomfort and may cause pain, redness, or tenderness at the site of injection but this is minimal compared to the pain, discomfort, and trauma of the diseases these vaccines prevent. Serious side effects following vaccination, such as severe allergic reaction, are very rare. The disease-prevention benefits of getting vaccines are much greater than the possible side effects for almost all children.

3. **Immunization protects others you care about.** Children in the U.S. still get vaccine-preventable diseases. In fact, we have seen resurgences of measles and whooping cough (pertussis) over the past few years. In 2012 the U.S. had more than 48,000 cases of whooping cough reported for all ages and 9 deaths in children younger than 3 months. Unfortunately, some babies are too young to be completely vaccinated and some people may not be able to receive certain vaccinations due to severe allergies, weakened immune systems from conditions like leukemia, or other reasons. To help keep them safe, it is important that you and your children who are able to get vaccinated are fully immunized. This not only protects your family, but also helps prevent the spread of these diseases to your friends and loved ones.

4. **Immunizations can save your family time and money.** A child with a vaccine-preventable disease can be denied attendance at schools or daycare facilities. Some vaccine-preventable diseases can result in prolonged disabilities and can take a financial toll because of lost time at work, medical bills or long-term disability care. In contrast, getting vaccinated against these diseases is a good investment and usually covered by insurance. The Vaccines for Children program is a federally funded program that provides free vaccinations to children in need.

5. **Immunization protects future generations.** Vaccines have reduced and, in some cases, eliminated many diseases that killed or severely disabled people just a few generations ago. For example, smallpox vaccination eradicated that disease worldwide. Your children don’t have to get smallpox shots anymore because the disease no longer exists. By vaccinating children against rubella (German measles), the risk that pregnant women will pass this virus on to their fetus or newborn has been dramatically decreased, and birth defects associated with that virus no longer are seen in the United States.
Vaccination saves lives

Why is vaccination needed?
Vaccination protects our future. It not only protects us and our children—it protects future generations by stopping the spread of disease. Vaccination saves lives. Thanks to vaccines, many deadly diseases have become rare in the United States. It is hard to imagine the devastating effects that diseases like polio and measles can have on a family and a community; if we stop vaccinating, these diseases will come back. The National Foundation for Infectious Diseases (NFID) lists 10 reasons to be vaccinated. Here are true stories of how vaccine-preventable diseases impacted families in America.

Who needs vaccinations?
Everyone needs to be vaccinated. Life-protecting vaccinations are recommended throughout our lives, beginning at birth before newborns leave the hospital. Adults also need vaccinations—you never outgrow vaccines! In fact, everyone over the age of 6 months of age should get a flu vaccine each year. The Centers for Disease Control and Prevention (CDC) provides vaccine schedules for infants and children; preteens and teens; and adults. The Vaccines for Children program provides vaccinations to children who cannot afford them.

Are vaccines safe?
Yes, vaccines are very safe. Some people may just get mild side effects like soreness or redness around the injection site and perhaps a low-grade fever. You should receive a VIS (Vaccine Information Statement) each time you get a vaccine.
Sometimes the media send mixed messages on the appropriateness and effectiveness of vaccines, causing confusion. Therefore, it is important to rely on organizations like the CDC and NFID (National Foundation for Infectious Diseases) for reliable, accurate information.

Remember:
It is much easier and more cost effective to prevent a disease rather than to treat it—it could even save a life!
Not only do vaccinations protect the recipient, they also prevent the disease and illness from spreading to others. Maintaining an ongoing relationship with a medical provider is one of the best ways to ensure that you and your family receive necessary and age-appropriate vaccinations. Your healthcare professional can provide the information you need for the vaccines you are seeking.

The bottom line is that vaccines protect us and our future generations. They have reduced and, in some instances, eliminated the diseases that have caused epidemics and mortality just a few generations ago. Leading medical organizations all support vaccination and tell us that vaccines are safe. So don’t leave your healthcare provider’s office without making sure you and your loved ones have had all the vaccinations you need!
Who are infection preventionists?

According to the Centers for Disease Control and Prevention (CDC), 1 in 25 hospitalized patients will get an infection as a result of the care they receive, and an estimated 75,000 patients will die each year. Because healthcare-associated infections (HAIs) are a threat to patient safety, many hospitals and healthcare facilities have made the prevention and reduction of these infections a top priority.

Infection preventionists (IPs) are professionals who make sure healthcare workers and patients are doing all the things they should to prevent infections. Most IPs are nurses, epidemiologists, public health professionals, microbiologists, doctors, or other health professionals who work to prevent germs from spreading within healthcare facilities. They look for patterns of infection within the facility; observe practices; educate healthcare teams; advise hospital leaders and other professionals; compile infection data; develop policies and procedures; and coordinate with local and national public health agencies.

Patient safety is the number one priority for IP. They ensure that:

- Healthcare workers wash their hands;
- Healthcare workers get the proper vaccinations;
- Doctors and pharmacists are providing you with the appropriate antibiotics;
- Catheters or indwelling devices are placed in your body after your skin receives proper cleaning and are kept clean and removed as soon as possible;
- Safe injection practices are followed at all times;
- Healthcare workers wear gloves, gowns, and masks at the right times; and
- Your room and any equipment that is used on you will be clean.

Each of us—patients, families, and healthcare personnel—has an important role to play in preventing infection. Learning about IPs and the infection prevention basics will help patients and their families stay healthy while receiving healthcare.

Here are the top 10 ways patients and families can prevent infection:

1) **Speak up for your care.** Always talk with your healthcare providers, ask questions, and discuss your concerns. Whenever a treatment is recommended, ask why it is necessary and what risks are associated with it. Write questions down before your appointment, so you don’t forget anything!

2) **Clean your hands often.** Hand hygiene is the best way to prevent the spread of infection. Make sure that everyone around you, including your healthcare providers and visitors, clean their hands. If you don’t see that person washing their hands or using an alcohol based hand-rub, don’t feel bad about
You never outgrow vaccines

**Adult vaccination information from the National Foundation for Infectious Diseases (NFID)**

Vaccine-preventable diseases haven’t gone away. The truth is, the viruses and bacteria that cause illness and death still exist and can be passed on to people who are not protected by vaccines. The Centers for Disease Control and Prevention (CDC) recommends vaccinations from birth through adulthood to provide a lifetime of protection against many diseases and infections, such as influenza, pneumococcal disease, human papillomavirus, and hepatitis A and B. Yet most adults are not vaccinated as recommended, leaving them needlessly vulnerable to illness, long-term suffering, and even death.

**Why vaccination is important**

- Vaccines are very effective in preventing the suffering and costs associated with vaccine-preventable infections, such as influenza, pneumococcal disease, human papillomavirus (HPV) and hepatitis B.
- Some of these illnesses do not have a cure, and all can cause tremendous health problems, including cancer.
- The majority of Americans who die every year from vaccine-preventable diseases are adults.

**What you need to know about vaccine-preventable diseases**

**Influenza**, also called the flu, is a contagious viral infection of the nose, throat, and lungs that can cause mild to severe illness. Its severity varies from year to year, but at its worst, kills as many as 49,000 Americans every year, more than any other vaccine-preventable disease.
- The influenza vaccine is recommended for everyone six months and older and must be given once yearly, from early fall to winter.

**Pneumococcal disease** is an infection caused by a type of bacteria called Streptococcus pneumonia that can invade the lungs, bloodstream, brain, and spinal cord, resulting in a number of different illnesses, including pneumonia and meningitis.
- The pneumococcal vaccine is usually given once at age 65 or older (or in adults younger than 65 who smoke or have underlying medical conditions, like asthma). Revaccination is recommended for people with certain health conditions or those over 65 who received their first dose five years previously and before age 65.

**Human papillomavirus (HPV)** refers to a group of more than 100 viruses that are usually spread through sexual contact. The most serious long-term complication of HPV is cervical cancer, and it is also associated with other genital cancers and oral cancers. Two of the virus strains covered in the HPV vaccines cause about 70 percent of cervical cancers. Twenty million Americans are infected with HPV, with more than six million new infections occurring in the U.S. each year. Almost three out of four infections occur in females younger than 24 years of age. Two vaccines (Cervarix and Gardasil) are available to protect females against the types of HPV that cause most cervical cancers. One of these vaccines (Gardasil) also protects against most genital warts. Both vaccines are recommended for 11 and 12 year-old girls, and for females 13 through 26 years old, who did not get any or all of the three recommended doses when they were younger. These vaccines can also be given to girls beginning at age 9. One available vaccine (Gardasil) protects males against most genital warts. This vaccine is available for boys and men, 9 through 26 years of age.