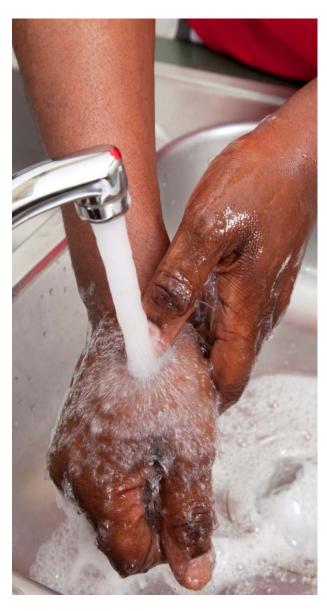
WHEN TO WASH YOUR HANDS



- Before eating or preparing food
- After using the toilet
- After blowing your nose
- After handling garbage or trash
- After touching pets or animals
- After touching shared objects
- Before handling contact lenses

WASH YOUR HANDS WHENEVER THEY ARE LIKELY TO BE CONTAMINATED WITH GERMS OR WHENEVER THEY WILL BE IN CONTACT WITH YOUR EYES, NOSE OR MOUTH





Five Minute Tips: When to Wash Your Hands

Use the When to Wash Your Hands sign on the reverse to support your teaching . Post the sign on your worksite bulletin board.

- 1. 80% of respiratory tract infections can be spread by the hands.
- 2. Always wash your hands:
 - Before eating or preparing food
 - After using the toilet (or helping a child use the toilet)
 - After blowing your nose (or wiping a child's nose)
 - After handling garbage or trash
 - After touching pets or animals
 - After touching objects that are shared with others
 - Before handling contact lenses
- 3. What you can do:
 - Make sure the washroom of your workplace has plain (not antibacterial) soap and clean (preferably disposable) towels
 - Set a good example

— SUM UP

Hands should be washed:

- When they are likely to be contaminated with germs
- When they are likely to come in contact with the places where germs can get into the body, such as your eyes, nose or mouth.

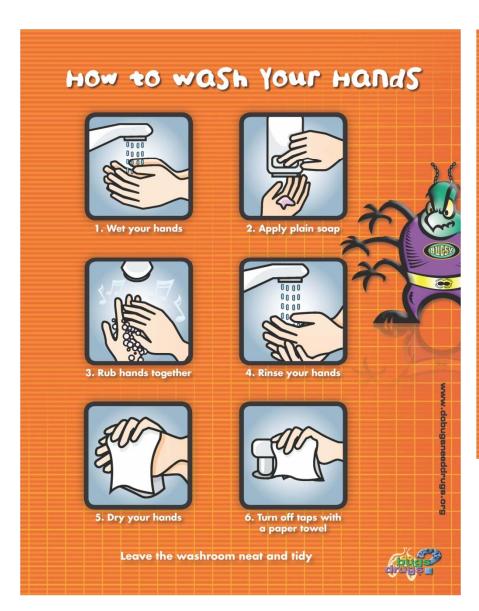
DID YOU KNOW?

In a telephone survey of 6,000 adults in four U. S. cities in 2007, 92% said they always washed their hands after using a public washroom.

When observers were stationed in public washrooms in the same cities, the results were somewhat different. Only 88% of women and 66% of men actually washed their hands.

Worst were the men's washrooms at Turner Field, home of the Atlanta Braves baseball team, where 43% of men did not wash their hands.

HOW TO WASH YOUR HANDS





HANDWASHING IS THE BEST WAY
TO STOP THE SPREAD OF INFECTIONS

Five Minute Tips: How to Wash Your Hands

Review in advance the six steps of handwashing so that you are familiar with good technique.

Use a handwashing poster that shows the six steps of proper handwashing, such as the one on the reverse from Do Bugs Need Drugs, to support your teaching.*

Demonstrate the steps of handwashing; ask the group to practice the motions along with you:

- **1. Wet your hands.** Wet your hands before applying soap so the soap doesn't get rinsed off.
- **2. Apply plain soap.** Use plain soap. Plain soap is just as effective as antibacterial soap in preventing infections and does not lead to antibiotic resistance.
- **3. Soap up for 20 seconds.** Use any poster such as the one on the reverse to show good soaping up technique. Wash your palms, between your fingers, backs, wrists, thumbs and fingertips and nails.
- **4. Rinse for 10 seconds** or until all the soap is gone.
- **5. Dry your hands**, preferably with a clean disposable towel.
- 6. Use the towel to turn off the taps and let yourself out the washroom door. (This prevents recontamination.)

Review the steps if needed.

Post handwashing signs in washrooms and above sinks.

View a handwashing video such as the one at www.dobugsneeddrugs.org to reinforce these messages

SUM UP

- Handwashing is the best way to stop the spread of infections
- Handwashing must be done properly to be effective

DID YOU KNOW?

Dr. Margaret Ryan, a physician with the United States Navy, measured the effect of a handwashing policy on respiratory illness. Recruits in San Diego were ordered to wash their hands at least five times a day.

There were **45% fewer respiratory infections** after the handwashing policy was put in place!

* Full size posters available at no cost from Do Bugs Need Drugs? See order form at: www.dobugsneeddrugs.org/occhealth

HAND SANITIZERS



RECOMMENDED ALCOHOL-BASED

- ✓ At least 60% alcohol
- ✓ Alcohol (ethanol, isopropanol, n-propanol) is the **only** active ingredient
- ✓ Foaming and liquid gels are both effective

NOT RECOMMENDED ALCOHOL-FREE

- Contain quaternary ammonium compounds (QUATS).
- ➤ Benzalkonium chloride is the most common QUAT in alcohol-free hand sanitizers
- QUATS can lead to antibiotic resistance

HAND SANITIZERS ARE NOT A SUBSTITUTE FOR HANDWASHING
HAND SANITIZERS DON'T WORK IF YOUR HANDS ARE GREASY OR DIRTY



Five Minute Tips: Hand Sanitizers

Use the Hand Sanitizers sign on the reverse to support your teaching . Post the sign on your worksite bulletin board.

- Handwashing is the best way to remove germs from your hands, but if soap and water aren't available, you can use an alcoholbased hand sanitizer.
- 2. Some examples of when hand sanitizers might be appropriate are in a car, truck or other vehicle or if you work outdoors.
- 3. Hand sanitizers don't work if your hands are dirty or greasy. If hand sanitizers are your only option, and your hands ARE dirty or greasy, first use a plain cleansing wipe (not antibacterial or disinfecting) followed by an alcohol-based hand sanitizer.
- 4. Use a hand sanitizer that contains at least 60% alcohol and alcohol is the **ONLY** active ingredient.
- Alcohol is listed as ethanol, isopropanol or n-propanol in the active ingredients.
- 6. Foaming or liquid gels are both effective.
- Do not use alcohol-free hand sanitizers as these contain quaternary ammonium compounds (QUATS). QUATS can lead to antibiotic resistance (see Tips #10 and 12)

SUM UP

- Hand sanitizers are not a substitute for handwashing.
- Only alcohol-based hand sanitizers are recommended by Alberta Health Services and the Public Health Agency of Canada.
- Non-alcohol-based hand sanitizers are not recommended.

DID YOU KNOW?

Bottles of liquid soap and hand sanitizers oftenlook the same.

Both contain a clear liquid and have similar pump dispensers at the top.

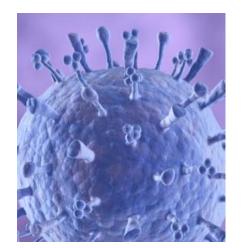
Avoid confusion! Hand sanitizers are not for handwashing. Hand sanitizers should not be placed near a sink or in a washroom.

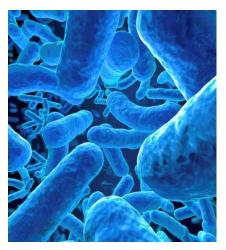
HOW DO HANDS SPREAD INFECTIONS?

Germs

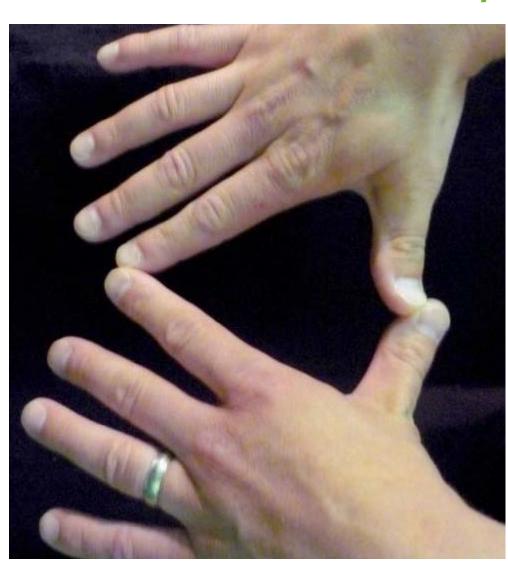
Hands

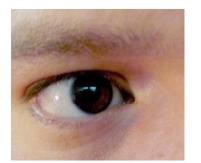
Eyes, Nose, Mouth



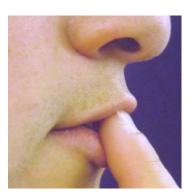












Five Minute Tips: How Do Hands Spread Infections?

Use the pictures on the reverse to support your teaching. Post the sign on your workplace bulletin board

- The hands are very efficient at picking up germs from contaminated surfaces such as countertops, desks, door handles, washroom fixtures and light switches.
- 2. These are places that are touched by many other people and are sites where germs can be spread.
- 3. But you don't get infections just by having germs on your hands (unless you have a cut or scrape).
- 4. Germs enter the body through the mucous membranes.
- 5. The mucous membranes are the pink, moist linings of your eyes, nose and mouth.
- 6. When you touch your eyes, nose or mouth, any germs that are on your hands can be transferred to the body and can cause an infection.

SUM UP

Keep your hands clean and away from your face

DID YOU KNOW?

Hands come in contact with many different objects during the day.

On average, working adults touch about 30 different objects during a one minute period.

RESPIRATORY ETIQUETTE



Sneeze or cough into a tissue Throw away used tissues promptly



If you do not have a tissue, sneeze or cough into your sleeve



Five Minute Tips: Respiratory Etiquette

Use the Respiratory Etiquette sign on the reverse to support your teaching. Post the sign on your worksite bulletin board.

Demonstrate good technique:

- 1. Cover your mouth and nose when you cough or sneeze.
- 2. Cough or sneeze into a tissue; throw used tissues away promptly.
- 3. If a tissue is not available, cough or sneeze into your sleeve.
- After handling used tissues, wash your hands with plain soap and water. If soap and water are not available, use an alcohol-based hand sanitizer.

SUM UP =

- Don't spread germs in the workplace
- Cover your coughs and sneezes
- Remember to use respiratory etiquette at home

DID YOU KNOW?

When a person sneezes, germs can spread intothe air as far as three meters.

Germs can also be spread, but for shorter distances, when we talk, laugh, cry, sing, whistle and snore.

INFLUENZA

PREVENTION

- Prevention is best because there is no reliable cure
- Get an annual influenza (flu) vaccination
- Wash your hands



SYMPTOMS

- Fever or chills
- Headache
- Feeling tired
- Body aches
- Sore throat
- Runny or stuffy nose
- Coughing, sneezing

SELF-CARE

- Drink plenty of fluids
- Stay home from work and rest
- Don't go out except for medical attention
- Take acetaminophen or ibuprofen for fever / pain
- Ask pharmacist for help with over-the-counter medicines



SEEK IMMEDIATE MEDICAL ATTENTION IF YOU HAVE ANY OF THESE SYMPTOMS:

TROUBLE BREATHING NOT CAUSED BY A STUFFY NOSE
STIFF NECK OR SEVERE HEADACHE WITH FEVER AND CHILLS

Five Minute Tips: Influenza

Use the Influenza sign on the reverse to support your teaching. Post the sign on your worksite bulletin board.

- 1. **Prevention:** Because there is no reliable cure for influenza, get an annual influenza (flu) vaccination. Stop the spread of the influenza virus and other germs by washing your hands properly and often.
- **2. Symptoms:** fever or chills, headache, feeling tired, body aches, sore throat, runny or stuffy nose, coughing, sneezing.

3. Self-care:

- Drink plenty of fluids
- Stay home from work and rest
- Avoid going out except to get medical attention
- Take fever-reducing medication such as acetaminophen or ibuprofen for fever and pain
- Ask your pharmacist for help with over-the-counter medicines
- 4. When to seek immediate medical attention. Go to the emergency department if you have any of the following symptoms:
 - Trouble breathing not caused by a stuffy nose
 - Stiff neck or severe headache with fever and chills

— SUM UP

- If you have influenza, stay home until you are feeling better.
- Don't go out except to get medical attention.

DID YOU KNOW?

Influenza is caused by the influenza virus.

There are antiviral medications (Tamiflu®) that can treat influenza, but they must be taken within 48 hours of when symptoms first appear. This is a time when it is difficult to tell whether you have influenza or a cold. If you take antiviral medications after 48 hours, they have no effect.

Even if you do take antiviral medication soon enough, these medications only shorten the time that you are sick by 1 - 3 days at most.

It's best not to rely on antivirals to cure influenza. Get an annual influenza vaccination.

DO I NEED AN ANTIBIOTIC?

VIRAL INFECTIONS

- More contagious than bacterial infections
- If more than one person in your family has the same illness, it's most likely a viral infection
- Can make you just as sick as bacterial infections
- Most respiratory tract infections are caused by viruses

BACTERIAL INFECTIONS

 Less common than viral infections

 Don't spread as easily from one person to another as viral infections

ANTIBIOTICS ONLY WORK AGAINST BACTERIA



USING ANTIBIOTICS FOR VIRAL INFECTIONS CAN LEAD TO ANTIBIOTIC RESISTANCE

Five Minute Tips: Do I Need an Antibiotic?

Use the Do I Need an Antibiotic sign on the reverse to support your teaching. Post the sign on your worksite bulletin board.

- 1. Antibiotics work against bacterial infections but not against viral infections.
- 2. Most respiratory tract infections (colds, influenza, sore throats, coughs,) are due to viruses.
- Your doctor may do tests to find out if your infection is caused by bacteria.
- Using antibiotics when they are not needed can cause bacteria to become resistant to antibiotics, so that antibiotics no longer work.
- You can carry antibiotic resistant bacteria in your body for a long time, which can result in infections later on that are difficult to treat.
- 6. Don't put yourself at risk by using antibiotics unnecessarily.

SUM UP

- Remember: Not all bugs need drugs.
- Antibiotics are not appropriate for viral infections.

DID YOU KNOW?

Studies have shown that physicians are more likely to prescribe an antibiotic, even if they don't think antibiotics are appropriate, if the patient indicates they want a prescription.

Wise use of antibiotics is the responsibility of both the physician and the patient.

WHAT CAUSES THESE INFECTIONS?

Infection	Caused by bacteria	Caused by viruses	Will an antibiotic help?
Colds	None	All	No
Influenza (flu)	None	All	No
Sore throat	Rarely	Most	Rarely
Laryngitis	None	All	No
Bronchitis*	Rarely	Most	Rarely
Sinus infection	Rarely	Most	Rarely
Ear infection	Some	Some	Sometimes
Pneumonia	Often	Some	Usually

^{*} in otherwise healthy people



Five Minute Tips: What Causes These Infections?

Use the What Causes These Infections sign on the reverse to support your teaching. Post the sign on your worksite bulletin board.

- 1. Know what's causing your respiratory tract infection. It will help you get the best treatment.
- 2. Colds, influenza and laryngitis are always caused by viruses.
- Most sore throats, coughs, sinus infections and bronchitis (unless you have a chronic illness such as emphysema or COPD) are due to viruses.
- 4. If you have one of these infections, ask your pharmacist about over the counter medications that will help to relieve your symptoms.
- Remember that antibiotics will not help with viral infections and that using antibiotics unnecessarily leads to antibiotic resistance.
- 6. Ear infections can be due to viruses or bacteria. In many cases an ear infection, even if it is caused by bacteria, will clear without an antibiotic.
- 7. Pneumonia is the most serious respiratory tract infection. It is most often caused by bacteria and antibiotics will help.

Note: This common misconception may come up in your discussion. Many people think that yellow / green nasal discharge or phlegm means their infection is caused by bacteria. This is not the case. Yellow or green discharge occurs with both bacterial and viral infections and comes from your body fighting the infection.

SUM UP

 Most respiratory tract infections are due to viruses and antibiotics will not help.

DID YOU KNOW?

It can take several weeks to get over the common cold. For the majority of people who have a cold, the fever and sore throat are gone by the end of a week . . .

But the runny nose and cough can go on for two weeks or more.

This is the normal course of a cold and does not mean that your infection is bacterial.

Antibiotic resistance is a threat to your health

Use antibiotics wisely



World Health Day, April 7, 2011
Commemorating the founding of the World Health Organization











Association of Medical Microbiology and Infectious Disease Canada l'Association pour la microbiologie médicale et l'infectiologie Canada





















Five Minute Tips: Antibiotic Resistance

Use the sign on the reverse from AntibioticAwareness.ca to support your teaching. Post the sign on your workplace bulletin board. For help with understanding this topic view the "What is Antibiotic Resistance? slide show at www.dobugsneeddrugs.org.

- 1. Antibiotic resistance is a complicated issue, but a basic understanding is important because it is a threat to your health.
- 2. Antibiotic resistance involves the interaction of **bacteria**, **antibiotics and people**.
- 3. **Bacteria** are tiny living organisms that can only be seen with a microscope. Bacteria are in the soil, water and in other living things *including the human body*. Most bacteria are good (for example, they help with digestion and immunity). Only a few are bad and cause infections.
- 4. **Antibiotics** are drugs that can kill bacteria or stop them from multiplying. Antibiotics have saved millions of lives from infections that, in the past, would have resulted in death (for example, pneumonia or infections associated with childbirth).
- 5. **Antibiotic resistance.** Some bacteria have developed ways to avoid being killed by antibiotics. These bacteria have "antibiotic resistance". Antibiotic resistance is genetic so that it can be passed to future generations of bacteria. Bacteria also have the special capacity to trade genes with other kinds of bacteria, providing another way for resistance to spread.
- People. If you have an infection caused by antibiotic resistant bacteria, you will continue to be sick, even though you are taking antibiotics. Your infection will not be cured. Antibiotic resistant infections result in longer illness, hospitalization or sometimes death.
- 7. **Antibiotic resistance is on the rise.** As more and more bacteria become resistant to antibiotics, we are returning to the "preantibiotic" era when people died from infections like pneumonia, or wound and skin infections.

- 8. **Antibiotic resistance.** When you take an antibiotic, both your good and bad bacteria are exposed. Exposure to an antibiotic increases the number of good bacteria in your body that are resistant. You may not be sick, but good bacteria are "carrying" the resistance genes. Since the resistance genes can be transferred to bad bacteria, the chance that your next infection will be resistant is increased.
- 9. Unnecessary use of antibiotics is the main reason why rates of antibiotic resistance are increasing. Use antibiotics wisely. This is what you need to know:
 - Antibiotics will not help with viral infections; viruses are not affected by antibiotics.
 - If you are not prescribed an antibiotic, it is because your infection is most likely caused by a virus.
 - If you are prescribed an antibiotic, take all of the medication until it is finished, even if you are felling better.
 - Protect yourself against viral infections: get an annual influenza (flu) vaccination and wash your hands.
 - Use soaps and cleaning products that do not lead to antibiotic resistance (see Tips #10-12).

= SUM UP =

- Use antibiotics responsibly.
- Do not ask for or expect antibiotics when you go to the doctor for a respiratory infection.
- Since antibiotics don't work for viral infections, protect yourself in other ways. Get an influenza vaccination. Wash your hands.
- Use soaps, personal hygiene products and cleaners that do not lead to antibiotic resistance.

PRODUCT LABEL DEFINITIONS

ANTIBACTERIAL	Containing chemicals that attack bacteria. TRICLOSAN or TRICLOCARBAN, act like antibiotics and can lead to antibiotic resistance. AVOID ANTIBACTERIAL PRODUCTS
ANTISEPTIC	A product that can kill germs on the skin. Hand sanitizers are actually antiseptics.
CLEANERS	Products that lift and remove dirt, grease and germs, allowing them to be washed them away.
SOAP	A cleaner made up of natural oils or fats and lye (sodium hydroxide) or a chemical similar to lye.
DETERGENT	A cleaner similar to soap but containing man-made compounds instead of natural oils or fats.
DISINFECTANT	A product that can kill 99.9% of germs on hard, non-porous surfaces. MUST BE USED AT THE CONCENTRATION AND DURATION OF TIME INDICATED ON THE PRODUCT LABEL TO BE EFFECTIVE
SANITIZER	A product that can kill germs on hard, non-porous surfaces and reduce the germ count to safe levels.





Five Minute Tips: Product Label Definitions

Use the Product Label Definitions sign on the reverse to support your teaching. Post the sign on your workplace bulletin board.

- "Antibacterial" products contain chemicals such as triclosan or triclocarban that attack bacteria and act like antibiotics. These chemicals can lead to antibiotic resistance and should be avoided.
- 2. Antiseptics are products that kill germs on the skin. Hand sanitizers are actually antiseptics. Some antiseptics are better than others.
- 3. Cleaners are products that lift dirt, grease and germs and allow them to be rinsed away. The advantage of these products is that they remove germs without attacking them and do not lead to antibiotic resistance.
- 4. Soaps and detergents are cleaners. Soaps have natural fats and oils whereas detergents are synthetic.
- Disinfectants will kill 99.9% of germs on hard, smooth surfaces. They must be used at the right concentration and for the right amount of time to be effective. Disinfectants are not intended for use on the skin.
- 6. Sanitizers are products that will kill germs on hard, smooth surfaces and reduce the germ count to safe levels.
- 7. Note: Sterilization is a process that kills or removes **all** biological material (including germs). Sterilization is used, for example, in the food industry (canning) and in medicine (surgical instruments).

SUM UF

- For use on the skin, chose products that do not attack bacteria because this can lead to antibiotic resistance.
- When you use disinfectants, follow product directions carefully.

DID YOU KNOW?

Besides promoting antibiotic resistance, environmental scans show that triclosan accumulates in the soil and water.

Studies have shown that low levels of triclosan in rivers interferes with reproduction in fish. The consequences for human health are under investigation.



LIQUID AND BAR SOAP

LIQUID HAND SOAP

- Not as messy as bar soap
- Recommended for public and shared sinks
- Regularly clean the soap container including the button, lever or pump that is touched to dispense the soap
- Use plain soap
- Do not use antibacterial soap containing triclosan



REFILLING LIQUID SOAP DISPENSERS

Do not "top up" liquid soap dispensers

Refillable dispensers that are infrequently cleaned have been shown to harbour bacteria

- 1. Empty the soap container before refilling
- 2. Wash the empty container and pump



BAR SOAP

- Bar soap should not stand in water
- Soap holder needs to allow water to drain and soap to air dry
- Regularly clean the soap holder
- Use plain soap
- Do not use antibacterial soap containing triclosan



Five Minute Tips: Liquid and Bar Soap

Use the Liquid and Bar Soap sign on the reverse to support your teaching. Post the sign on your workplace bulletin board.

- 1. Liquid hand soap is not as messy as bar soap and is preferred for public or shared sinks.
- Liquid soap containers should be cleaned regularly, particularly the surfaces that people touch to dispense the soap (button, lever, pump). These surfaces are touched after using the toilet but before washing the hands and are likely to be contaminated.
- 3. Refillable liquid soap dispensers should not be "topped up".

 Bacterial contamination has been found in soap from dispensers that are not cleaned before refilling.
- 4. To clean a liquid soap dispenser: empty, wash the container and pump, air dry and then refill.
- 5. Bar soap can be used but should not stand in water. Bar soap holders should allow water to drain and the soap to air dry.
- 6. Bar soap holders should be regularly cleaned.
- 7. No matter what form of soap is used, use plain soap.
- Do not use antibacterial soap containing triclosan or triclocarban because these chemicals act like antibiotics and can lead to antibiotic resistance.
- 9. Plain soap is just as effective as antibacterial soap in preventing infections and does not lead to antibiotic resistance.

SUMUP =

- Make sure plain soap is available at all sinks in your workplace.
- Ensure soap dispensers and holders are properly cleaned and maintained.

DID YOU KNOW?

A 2011 study showed that refillable bulk-soap dispensers are prone to contamination with bacteria.

As many as 1 in 4 refillable soap dispensers in public restrooms were significantly contaminated .

15 different kinds of bacteria were identified including those commonly found in feces.

CLEANING PRODUCT INGREDIENTS YOU SHOULD KNOW ABOUT

TRICLOSAN

TRICLOCARBAN

- Active ingredient in "antibacterial" products
- Soap, dish detergent, cosmetics, deodorant, others
- Leads to antibiotic resistance
- Negative effects on the environment
- Under review by the US Food & Drug Administration
- AVOID ANTIBACTERIAL PRODUCTS

QUATERNARY COMPOUNDS

- Also know as IIIATS
- Chemicals that end in "-NIIM"
- **Examples:** benzalkonium chloride, cetylpyridinium chloride

QUATS IN **DISINFECTANTS**

- Active ingredient in disinfectants and disinfecting wipes
- Effective on hard non-porous surfaces
- MUST BE USED AT CORRECT CONCENTRATION AND LENGTH OF TIME

- QUATS IN Active ingredient in hand sanitizers, shampoo, cosmetics, others
- **PERSONAL CARE** Can lead to antibiotic resistance
 - PRODUCTS HAND SANITIZERS CONTAINING QUATS ARE NOT RECOMMENDED





Five Minute Tips: Cleaning Product Ingredients You Should Know About

Use the Product Label Definitions sign on the reverse to support your teaching. Post the sign on your workplace bulletin board.

- Triclosan is a biologically active compound that attacks bacteria and acts like an antibiotic. It is the most common additive in products labeled "antibacterial".
 - Avoid products containing triclosan because they can lead to antibiotic resistance.
 - Triclosan also has negative effects on the environment.
 - Triclosan is under review by the U.S. Food and Drug Administration.
- Quaternary ammonium compounds (QUATS) are also biologically active. They can be identified on product labels because they end in "-nium".
 - QUATS are effective as disinfectants on hard, smooth surfaces such as floors, countertops, sinks etc. but they must be used as directed. Usually the surface needs to remain wet for several minutes. Food preparation areas need to be rinsed with water afterwards.
 - Many personal care products (soap, shampoo, hand sanitizers, cosmetics) contain QUATS. These products are not recommended because they can lead to antibiotic resistance.

SUM UP

- Know the ingredients in the products you are using.
- Avoid products containing triclosan.
- Avoid personal care products containing QUATS.
- Read the product instructions and only use as directed.

DID YOU KNOW?

The active ingredient in most "disinfecting wipes" is a QUAT, benzalkonium chloride.

Directions for use indicate that the surface must remain wet for several minutes in order for the product to disinfect.

This is often difficult to achieve and can lead to reduced germ kill.

These products are not recommended for surface cleaning and are not for use on the skin.