

Antibiotic Awareness



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Do I Need Antibiotics?

Many infections, especially those caused by viruses, do not require antibiotics. If you have the common cold, the flu, or a runny nose, even if the mucus is green or yellow, antibiotics will not help you feel better. In fact, taking them may harm you.

When are Antibiotics Necessary?

Sometimes, antibiotics are necessary to treat a bacterial infection and the benefits outweigh the risks of taking an antibiotic. The following are common infections that require antibiotics:

- Pneumonia
- Strep Throat
- Urinary Tract Infections
- Whooping Cough
- Some* cases of sinus infections or bronchitis

*not all sinus infections or cases of bronchitis require antibiotics to treat. Some will resolve on their own.

Modern Antibiotic History

Modern antibiotics have been around for a relatively short time frame. In 1928, Sir Alexander Fleming accidentally discovered the first antibiotic, penicillin. He noticed that a bacterial culture was not growing in an area that had been contaminated with mold. This mold was *Penicillium notatum*. Commercial penicillin was not developed

until the 1940s. During one of his speeches in the 1940s, Fleming warned of the possibility of antibiotic resistance if this new antibiotic was used inappropriately.

Throughout the next three decades, a majority of the antibiotics we have today were developed. No new antibiotics were discovered between the late 1980's and

the early 2000s. During this lull in antibiotic development, antibiotic resistance started becoming more prevalent.



What is Antibiotic Resistance?

Some bacteria, when exposed to antibiotics, have the ability to change and become resistant. This usually occurs if the dose is too low, antibiotics are used too often, or the wrong antibiotics are being used. When resistance develops, bacteria can no longer be killed by certain antibiot-

ics, ultimately resulting in infections that are harder to treat or that cannot be treated. These infections can spread to other people, resulting in widespread resistance.

According to the CDC, two million people in the US are diagnosed with antibiotic

resistant infections each year. Of these two million people, at least 23,000 die. This is why antibiotic resistance is a growing public health threat and antibiotics need to be used appropriately. Without antibiotics, we would be unable to treat bacterial infections.

Do I have a UTI?

It is common to go to the doctor or hospital for an illness and be asked to provide a urine sample. Your urine can sometimes give the doctor clues to what is wrong. However, just because there is bacteria in your urine, does not mean you have an infection. Often bacteria can live in

your bladder without causing an infection. If you are told you have a urinary tract infection but have NOT had symptoms such as burning with urination, having to urinate more often, the urge to urinate when your bladder is empty, or pain in your lower abdomen or low back, let your doctor know.

There are of course exceptions, such as if you are pregnant or having certain bladder surgeries, so do not be afraid to double check with your doctor that antibiotics are really necessary.



ALASKA STATE HOSPITAL &
NURSING HOME ASSOCIATION



The Alaska Antimicrobial Stewardship Collaborative is an active partnership of acute care and long-term care hospitals dedicated to developing innovative strategies to ensure appropriate antibiotic use. A2SC's goal is a simple one: all patients in Alaska will receive the right antibiotic at the right time and only when necessary. While at one time, antibiotics revolutionized the practice of medicine by providing a rapid cure to many illnesses that were once fatal, those days may soon be gone. The emergence of antibiotic-resistant bacteria caused by the misuse and overuse of antibiotics is pushing the healthcare industry to re-evaluate how medicine is practiced. Together we will accelerate positive changes to achieve this critical goal.