

# When antibiotics may – or may not – be the answer when you're sick

By William Hong

We are fortunate to live in an age where advancements in medicine, public health and sanitation have significantly reduced infections that were once harmful to our health and quality of life. Antibiotics in particular have saved countless lives over the past several decades. However, not all infections require antibiotics, and it is important to weigh the risks and avoid overuse of antibiotics. So, when is an antibiotic the right treatment?

Common bacterial infections that often benefit from antibiotic treatment include urinary tract infections, strep throat, ear infections, pneumonia, cellulitis (a skin infection), animal bites and sexually transmitted infections. In these cases, antibiotics have been shown to target the culprit bacteria, relieve symptoms, speed up resolution and reduce complications. Life-threatening infections like those involving the bloodstream, bone or nervous system may require intravenous (“IV”) antibiotic treatment at a hospital to prevent death or significant disability.

Antibiotic treatment can also prevent bacterial infections and complications in higher-risk people. For example, newborn babies are born with immature immune systems and require antibiotic eye drops at birth to prevent harmful eye infections. Other examples of high-risk people who may need antibiotics for prevention include people with weakened immune systems (like undergoing chemotherapy for cancer or having HIV) or recent surgical procedures. Remember, taking antibiotics for prevention is a decision that may require discussions with your healthcare provider.

## When you don't need an antibiotic

- **Viral illnesses** such as the common cold, bronchitis, croup, COVID-19, influenza and RSV should not be treated with antibiotics because these medications mostly target bacteria and are not effective against viruses.
- **Infections caused by fungi and parasites** can be treated with antibiotics, they usually require a different type of medication for treatment.
- Antibiotics should also be avoided **if the risk outweighs the benefits**. An example is bloody diarrhea caused by a strain of E. Coli known as EHEC. Treatment with antibiotics will reduce bacteria but cause significant blood cell disorders that could lead to hospitalization. If the person has a healthy immune system, allowing their body to naturally fight the infection is recommended instead.
- If treatment with antibiotics does not improve symptoms or healing compared to the immune system naturally fighting an infection, it may be unwise to start antibiotic treatment.

The importance of avoiding indiscriminate use of antibiotics cannot be understated. Evolving resistance to antibiotics continues to pose a significant public health challenge across the United States. Antibiotics can be harmful towards the good bacteria that reside in our bodies and play an important

role in our immunity. This can increase the risk for unintended infections. Certain antibiotics may induce allergic reactions or cause side effects that could range from mild discomfort to life-threatening.

If you are concerned about an infection, talk to your healthcare provider. They can evaluate your condition and discuss if antibiotics are appropriate for treatment or prevention.

Most importantly, don't forget that you have an active role in preventing infection. Handwashing, maintaining a clean environment, healthy diet, exercise, addressing chronic medical conditions, practicing safe sex, staying up-to-date on immunizations and avoiding tobacco or drug use are some ways to reduce the risk for infections and need for antibiotics.

*Dr. William Hong, MD, a family physician at RiverStone Health Clinic, can be reached at 406-247-3350.*