BetterSafe

WELCOA'S ONLINE BULLETIN FOR YOUR FAMILY'S SAFETY

Stop the Spread of SUPERBUGS

Help Fight Drug-Resistant Bacteria

For nearly a century, bacteria-fighting drugs known as antibiotics have helped to control and destroy many of the harmful bacteria that can make us sick. But in recent decades, antibiotics have been losing their punch against some types of bacteria. In fact, certain bacteria are now unbeatable with today's medicines. Sadly, the way we've been using antibiotics is helping to create new drug-resistant "superbugs."

Superbugs are strains of bacteria that are resistant to several types of antibiotics. Each year these drug-resistant bacteria infect more than 2 million people nationwide and kill at least 23,000, according to the U.S. Centers for Disease Control and Prevention (CDC). Drug-resistant forms of tuberculosis, gonorrhea, and staph infections are just a few of the dangers we now face.

Antibiotics are among the most commonly prescribed drugs for people. They're also given to livestock to prevent disease and promote growth. Antibiotics are effective against bacterial infections, such as strep throat and some types of pneumonia, diarrheal diseases, and ear infections. But these drugs don't work at all against viruses, such as those that cause colds or flu.

Unfortunately, many antibiotics prescribed to people and to animals are unnecessary. And the overuse and misuse of antibiotics helps to create drug-resistant bacteria.

How a Superbug is Born

Here's how that might happen. When used properly, antibiotics can help destroy disease-causing bacteria. But if you take an antibiotic when you have a viral infection like the flu, the drug won't affect the viruses making you sick. Instead, it'll destroy a wide variety of bacteria in your body, including some of the "good" bacteria that help you digest food, fight infection, and stay healthy. Bacteria that are tough enough to survive the drug will have a chance to grow and quickly multiply. These drug-resistant strains may even spread to other people.

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Over time, if more and more people take antibiotics when not necessary, drug-resistant bacteria can continue to thrive and spread. They may even share their drug-resistant traits with other bacteria. Drugs may become less effective or not work at all against certain disease-causing bacteria.

"Bacterial infections that were treatable for decades are no longer responding to antibiotics, even the newer ones," says Dr. Dennis Dixon, a National Institutes of Health (NIH) expert in bacterial and fungal diseases. Scientists have been trying to keep ahead of newly emerging drug-resistant bacteria by developing new drugs, but it's a tough task.

You can help slow the spread of drug-resistant bacteria by taking antibiotics properly and only when needed. Don't insist on an antibiotic if your health care provider advises otherwise. For example, many parents expect doctors to prescribe antibiotics for a child's ear infection. But experts recommend delaying for a time in certain situations, as many ear infections get better without antibiotics.

NIH researchers have been looking at whether antibiotics are effective for treating certain conditions in the first place. One recent study showed that antibiotics may be less effective than previously thought for treating a common type of sinus infection. This kind of research can help prevent the misuse and overuse of antibiotics.

Blocking Harmful Bacteria

- **Wash your hands often with soap and water, or use an alcohol-based hand sanitizer.**
- **If you're sick, make sure your doctor has a clear understanding of your symptoms. Discuss whether an antibiotic or a different type of treatment is appropriate for your illness.**
- **If antibiotics are needed, take the full course exactly as directed. Don't save the medicine for a future illness, and don't share with others.**
- **Maintain a healthy lifestyle—including proper diet, exercise, and good hygiene—to help prevent illness, thereby helping to prevent the overuse or misuse of medications.**

"Treating infections with antibiotics is something we want to preserve for generations to come, so we shouldn't misuse them," says Dr. Julie Segre, a senior investigator at NIH.

When antibiotics are needed, doctors usually prescribe a mild one before trying something more aggressive like vancomycin. Such newer antibiotics can be more toxic and more expensive than older ones. Eventually, bacteria will develop resistance to even the new drugs. In recent years, some superbugs, such as vancomycin-resistant Enterococci bacteria, remain unaffected by even this antibiotic of last resort.

Ideally, doctors would be able to quickly identify the right antibiotic to treat a particular infection. But labs need days or even weeks to test and identify the bacteria strain. Until the lab results come in, antibiotic treatment is often an educated guess.

While scientists search for ways to beat back these stubborn bacteria, you can help by preventing the spread of germs so we depend less on antibiotics in the first place. The best way to prevent bacterial infections is by washing your hands frequently with soap and water. It's also a good idea not to share personal items such as towels or razors. And use antibiotics only as directed. We can all do our part to fight drug-resistant bacteria.

WELCOA
HEALTH BULLETINS

DayInDayOut
WELCOA'S ONLINE BULLETIN FOR YOUR LIFESTYLE

Gripped by GOUT

Avoiding the Ache and Agony

Sudden, painful swelling at the base of the big toe is often the first warning sign of gout. It can affect other joints as well. Without treatment, gout can lead to severe joint damage and make it hard for you to move. The good news is, most types of gout are treatable, especially if caught early.

About 4% of adults in the U.S. have been diagnosed with gout. It's a form of arthritis—in fact, the 2nd most common form after osteoarthritis. And it's a growing problem.

"The prevalence of gout more than doubled nationwide between the 1960s and 1990s, and the increases have continued into the 1990s and 2000s," says Dr. Hyon Choi, a physician who studies gout at Boston University School of Medicine.

Experts suspect that climbing rates of obesity and high blood pressure are partly to blame for the rise in gout. Gout has also been linked to other medical conditions, such as kidney problems, diabetes, and heart disease.

The Cause

Gout is caused by tiny needle-like crystals that build up in the joints, leading to sudden inflammation and intense pain. The crystals are made of uric acid, a substance that normally dissolves in the blood and passes out of the body in urine. But in people with gout, high blood levels of uric acid allow crystals to form in the joints and sometimes in the kidneys, where they create kidney stones.

Uric acid comes from the breakdown of substances called purines. Purines are naturally found in your body's tissues and in many foods. Eating purine-rich foods—such as organ meats, mussels, and mushrooms—can bring on or worsen a gout attack. Alcohol or stress can also trigger an episode.

The Symptoms

Gout symptoms usually arise at night. It normally affects one joint at a time, often in the feet, hands, elbows, or knees.

"Gout primarily affects men who are middle aged or older," Choi says. "Postmenopausal women are at risk too, especially if they are obese or have high blood pressure or unhealthy dietary habits, such as drinking large amounts of alcohol or sugary soda."

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The risk also rises if you have a family member with gout or if you take certain medicines, such as water pills (diuretics) or low-dose aspirin.

Early gout attacks tend to fade within a week. It may be months or even years before the next attack hits. But over time, gout may appear more often and last longer if left untreated.

Treating Gout

Most people with gout can control their symptoms through lifestyle changes and medications. Non-steroidal anti-inflammatory drugs (NSAIDs) can ease the swelling and pain of sudden attacks. Oral or injected steroids and a drug called colchicine can also help.

If frequent gout attacks become a problem, doctors may prescribe uric acid-lowering medicines. But once begun, these drugs often must be taken long term.

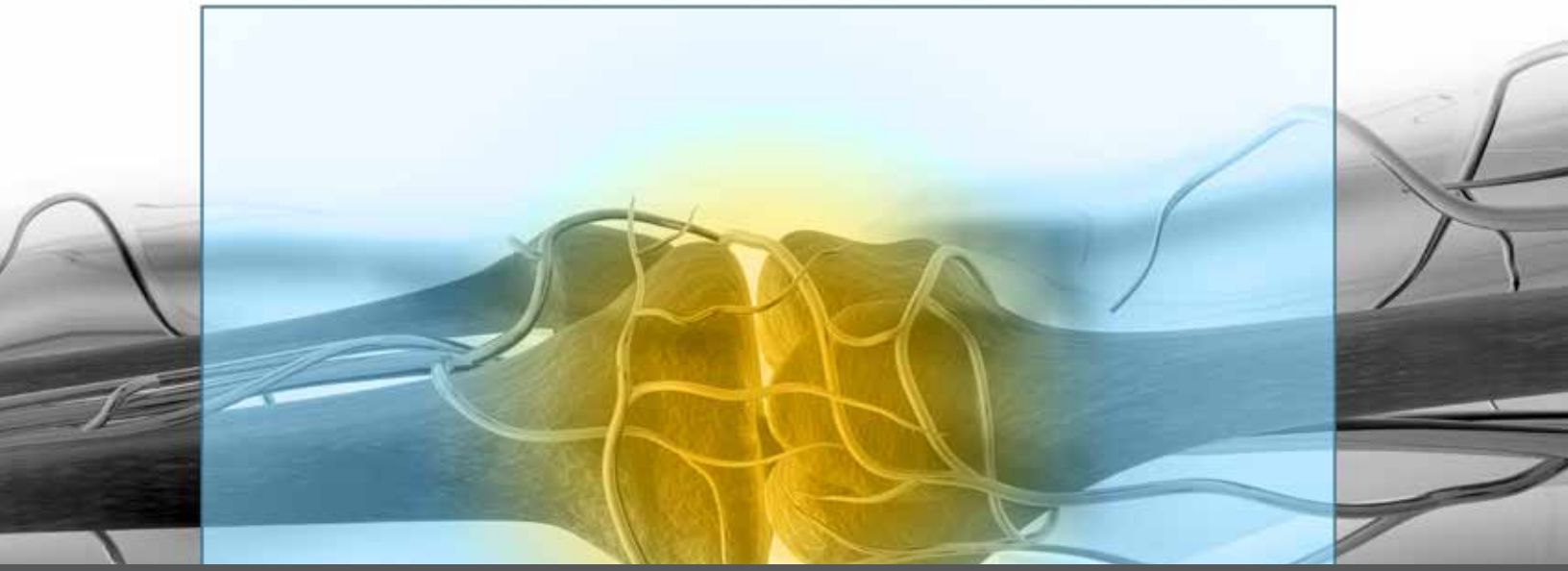
"If it's left untreated, gout can eventually lead to damage and deformity of the joints—a condition called chronic gout," says Choi. "In general, chronic gout arises only after many years of suffering."

If you have repeated attacks of pain and swelling in your joints, talk to a health care provider. "If you have gout, the earlier you're diagnosed and treated—along with making healthy lifestyle changes—the better off you'll be," says Choi.

If You Have Gout

To ease or prevent gout attacks:

- **Eat a heart-healthy diet. Avoid foods that are high in purines (such as liver, dried beans and peas, gravy, and anchovies).**
- **Avoid high-fructose corn syrup-sweetened beverages and foods.**
- **Drink plenty of water, and limit alcohol.**
- **Exercise regularly and maintain a healthy weight.**
- **If you're overweight, ask your doctor how to lose weight safely. Fast or extreme weight loss can raise uric acid levels.**
- **Tell your health care provider about all the medicines and vitamins you take.**
- **Take prescribed medicines as directed.**



TakeCharge

WELCOA'S ONLINE SELF-CARE BULLETIN

Headache Pain

WHAT TO DO WHEN YOUR HEAD HURTS

Most of us get headaches from time to time. Some are mild. Others cause throbbing pain. They can last for minutes or days. There are many different types of headaches. How you treat yours depends on which kind you have.

Headaches might arise because of another medical condition, such as swollen sinuses or head injury. In these cases, treating the underlying problem usually relieves headache pain as well. But most headaches—including tension headaches and migraines—aren't caused by a separate illness.

What Causes a Headache?

A headache may feel like a pain inside your brain, but it's not. Most headaches begin in the many nerves of the muscles and blood vessels that surround your head, neck, and face. These pain-sensing nerves can be set off by stress, muscle tension, enlarged blood vessels, and other triggers. Once activated, the nerves send messages to the brain, and it can feel like the pain is coming from deep within your head.

Tension headaches are the most common type of headache. They can cause a feeling of painful pressure on the head and neck. Tension headaches occur when the muscles in your head and neck tighten, often because of stress or anxiety. Intense work, missed meals, jaw clenching, or too little sleep can bring on tension headaches.

What Can You Do For A Headache?

Over-the-counter medicines such as aspirin, ibuprofen, or acetaminophen can help reduce the pain. "Lifestyle changes to relax and reduce stress might help, such as yoga, stretching, massage, and other tension relievers," says Dr. Linda Porter, a National Institutes of Health (NIH) expert on pain research.

Migraines are the second-most common type of headache. They affect more than 1 in 10 people. Migraines tend to run in families and most often affect women. The pain can be severe, with pulsing and throbbing, and can last for several days. Migraine symptoms can also include blurry vision and nausea.

"Migraines are complex and can be disabling," Porter says. Certain smells, noises, or bright flashing lights can bring on a migraine. Other triggers include lack of sleep, certain foods, skipped meals, smoking, stress, or even an approaching thunderstorm. Keeping a headache diary can help to identify the specific causes of your migraines. Avoiding those triggers or using prescription medications could help prevent or lessen the severity of future migraines.

Be careful not to overuse headache medications. Overuse can cause "rebound" headaches, making headaches more frequent and painful. People with repeating headaches, such as migraines or tension headaches, are especially at risk. Experts advise not taking certain pain-relief medicines for headaches more than 3 times a week.

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A less common but more severe type of headache comes on suddenly in "clusters" at the same time of day or night for weeks. Cluster headaches may strike one side of the head, often near one eye, with a sharp or burning pain. These headaches are more common in men and in smokers.

In rare cases, a headache may warn of a serious illness. Get medical help right away if you have a headache after a blow to your head, or if you have a headache along with fever, confusion, loss of consciousness, or pain in the eye or ear.

"Know what kind of headache you have and, if you can't manage it yourself, seek help," Porter says. "Remember there are preventive behavioral steps and medicines that can help manage headaches. But if the pain is severe or lasting, get medical care."

PREVENT HEADACHES

- Ease stress
- Get enough quality sleep
- Eat regularly scheduled, healthy meals
- Exercise regularly and maintain a healthy weight
- Ask your doctor if medications might help prevent returning headaches

Cluster headaches may strike one side of the head, often near one eye, with a sharp or burning pain. These headaches are more common in men and in smokers.

To Your Health

WELCOA'S ONLINE GENERAL WELLNESS BULLETIN

PROTECT YOUR LIVER!

Your liver works hard to protect your health. It's a rugged, strong organ. But certain things—like alcohol, drugs, viruses, and excess weight—can damage it. You may not even realize when your liver is struggling, because liver disease usually has no symptoms until the problem becomes severe. Help your liver to guard your health by avoiding the things that might cause it harm.

The liver is the largest organ inside your body. It's about the size of a football, and rests just under your ribs against the right side of your stomach.

A Look at Your Liver

"The liver performs an amazing set of functions that keep you healthy," says Dr. Jake Liang, a liver specialist and researcher at the National Institutes of Health (NIH).

Your liver helps fight infections. It cleans your blood by getting rid of your body's natural waste products and other harmful substances, including alcohol and drugs.

"The liver also transforms the foods you eat into energy and nutrients your body can use, and it regulates how nutrients flow to different parts of the body when needed," Liang says.

Your liver can keep working even if part of it is damaged or removed. But if it starts to shut down completely—a condition known as liver failure—you can survive for only a day or two unless you get emergency treatment.

Many things can affect liver function. Some liver problems are inherited from your parents, some are caused by viruses (certain kinds of hepatitis), and some are related to your behavior. Certain liver diseases go away on their own. Others can last a lifetime and cause serious illness.

Although liver disease often has no symptoms, warning signs can include a swollen abdomen, nausea, itching, or jaundice (having a yellow tint to the skin and the whites of the eyes).

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FOR A HEALTHY LIVER

- Eat a balanced, healthy diet and exercise regularly.
- Maintain a healthy weight.
- Limit alcohol use. Talk with your doctor about how much alcohol is OK for you.
- Learn how the medicines you take might affect your liver. Take medications as directed.
- Talk to your doctor or pharmacist about all the medicines you're taking.
- Avoid direct contact with toxins from insecticides, cleaning products, and other chemicals.
- Don't smoke.

"Research networks are important because no single medical center has enough patients with rare diseases to do a rigorous study or test new treatments," says Dr. Edward Doo, a liver disease expert at NIH. "With this large pediatric network, we can combine the efforts and expertise of many clinical centers that specialize in rare childhood liver diseases."

Other NIH studies are focusing on an increasingly common type of liver disorder—known as fatty liver disease—that affects both children and adults. A healthy liver contains just a little fat or none at all. But too much fat buildup in liver cells can cause swelling and damage. Over time, the excess fat can lead to cirrhosis, liver cancer, and even liver failure.

"Estimates vary, but 2 different studies in the past decade suggest that about 30% to 45% of Americans have excess fat in the liver," says Dr. Yaron Rotman, an NIH specialist in fatty liver disease. "It's also becoming a huge problem for children and teens."

Drinking too much alcohol can cause fatty liver. But a growing number of people who drink little or no alcohol are also being diagnosed with fatty liver. "The rise seems to be tied to the nation's obesity epidemic," says Doo.

Another common type of liver disease—known as viral hepatitis—can be caused by at least 5 different viruses, named hepatitis A, B, C, D, and E. These infections can injure your liver and keep it from working properly.Each hepatitis virus causes a different form of liver disease. All the viruses can trigger acute, or short-term, hepatitis. Hepatitis B, C, and D can also cause chronic hepatitis, in which the infection lasts a long time, sometimes for your whole life.

People are often exposed to hepatitis A and E viruses through contaminated food or water. "The other hepatitis viruses often pass through some type of break in the skin barrier, sometimes by injections or by close contact with blood or other body fluids," Liang adds. Hepatitis B, C, and D can spread through sexual contact.

Viral hepatitis is often treated with antiviral medications. Hepatitis A, B, and D infections can be prevented by vaccines. Practicing good hygiene—such as washing your hands and avoiding contact with infected blood—can also help block the spread of viral hepatitis.

Maintain a healthy weight, stay physically active, and limit your alcohol use. Keep your liver healthy, and it will protect you for a lifetime.