



BetterSafe

WELCOA'S ONLINE BULLETIN FOR YOUR FAMILY'S SAFETY

TickTalk

Block Tick Bites & Lyme Disease

Autumn is a great time to take a walk and enjoy the turn of the season, and it's also a time that we're often busy outside, raking leaves and doing yard work. But before you roll up your sleeves or head out on a hiking trail, you'll want to protect yourself and your loved ones from ticks that often lurk in tall grass, thick brush, and wooded areas. Many ticks carry disease, so do what you can to keep ticks from taking a bite out of you.

Tick-borne diseases are found in many areas across the country, and they're on the rise. The diseases are often clustered in specific regions. Rocky Mountain spotted fever, for instance, occurs mainly in the mid-Atlantic and southern states.

Lyme disease is the most common tick-borne illness. It's found mainly in the Northeast and upper Midwest. Each year, more than 30,000 cases are reported in the United States, and

many more likely go unreported. The U.S. Centers for Disease Control and Prevention (CDC) estimates that as many as 300,000 Americans get Lyme disease each year.

Ticks are tiny 8-legged creatures that can be hard to see. Deer ticks—which can carry *Borrelia burgdorferi*, the bacterium that causes Lyme disease—are especially small. The young “nymphs” are only the size of poppy seeds. Adult deer ticks aren't much larger—about the size of a sesame seed. If an infected deer tick chooses you for its next blood meal, that bite can transmit Lyme disease or another infection to you.

“Ticks can be so tiny that most people who get Lyme disease don't recall a tick bite,” says Dr. Adriana Marques, a Lyme disease expert at the National Institutes of Health (NIH). But if you have symptoms of the disease, she says, “the earlier you get treated, the better.”

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The Dangers of Tick-Borne Diseases

Tick-borne diseases tend to share certain symptoms. Symptoms can include fever, headache, muscle or joint pain, and extreme fatigue. People with Lyme disease usually get an expanding red rash that sometimes resembles a bull's-eye. "The rash is usually tender, not painful or itchy, so people may not realize they're sick," says Marques.

If left untreated, the infection can spread and cause rashes in other parts of the body. Some people may develop nerve problems, arthritis, or other disorders. But even if Lyme disease isn't caught until later stages, most people fully recover after treatment with antibiotics.

Prevention

Of course, the best way to avoid Lyme and other tick-borne diseases is to prevent tick bites in the first place. Most bites from disease-causing ticks occur in the spring and summer months, when ticks are most active and when people are spending more time outside.

Help keep ticks off your skin by wearing long sleeves, long pants, and long socks. You can also ward off ticks by using an insect repellent that contains at least 20% DEET (for the skin) or permethrin (for clothes). To avoid ticks, walk in the center of trails and steer clear of tall vegetation.

If you've been in an area where ticks are common, bathe or shower as soon as possible, and wash or tumble your clothes in a dryer on high heat. Check your body carefully for ticks. They dig and burrow into the skin before they bite and feed. Removing ticks right away can help prevent disease. If you develop a rash or fever after removing a tick, see your doctor.

So watch out for ticks! Make a habit of tick prevention as you venture into the great outdoors.



To Remove A Tick

Promptly remove ticks to reduce the risk of tick-borne diseases.

- Use fine-tipped tweezers.
- Grab the tick close to the skin and gently pull upward to remove the entire tick.
- Don't use home remedies like petroleum jelly, nail polish, or a lit match to try to detach ticks.
- After removing the tick, clean the bite area and wash your hands thoroughly.
- If you develop a fever, severe headaches, or a rash within weeks of removing the tick, see a doctor.



Day In Day Out

WELCOA'S ONLINE BULLETIN FOR YOUR LIFESTYLE

A Look At **Panic Disorders**

People with panic disorder have sudden and repeated attacks of fear that last for several minutes. Sometimes symptoms may last longer. These are called panic attacks. Panic attacks are characterized by a fear of disaster or of losing control even when there is no real danger. A person may also have a strong physical reaction during a panic attack. It may feel like having a heart attack. Panic attacks can occur at any time, and many people with panic disorder worry about and dread the possibility of having another attack.

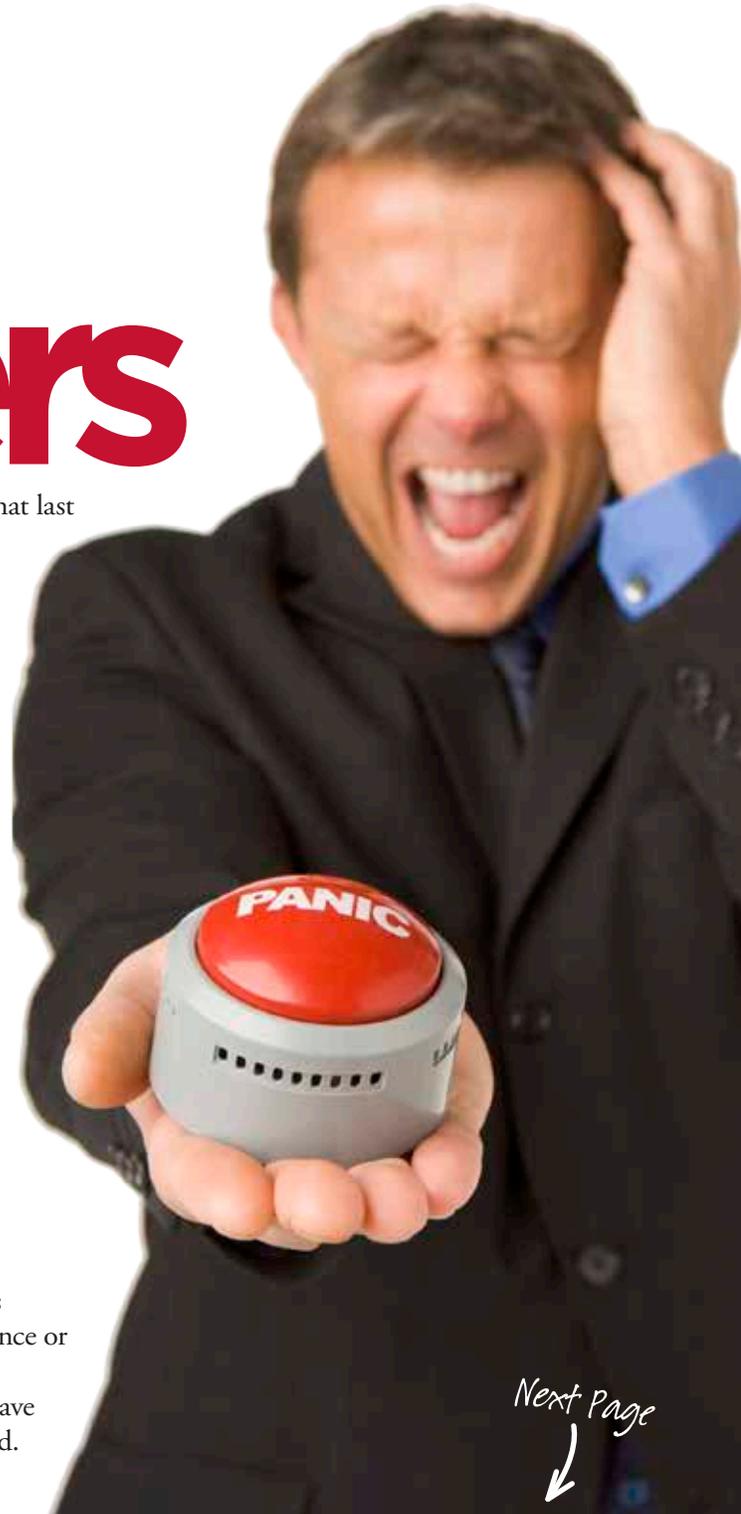
A person with panic disorder may become discouraged and feel ashamed because he or she cannot carry out normal routines like going to the grocery store or driving. Having panic disorder can also interfere with school or work.

What Are The Causes Of A Panic Attack?

Panic disorder sometimes runs in families, but no one knows for sure why some people have it while others don't. Researchers have found that several parts of the brain are involved in fear and anxiety. By learning more about fear and anxiety in the brain, scientists may be able to create better treatments. Researchers are also looking for ways in which stress and environmental factors may play a role.

Who Is At Risk?

Panic disorder affects about 6 million American adults and is twice as common in women as men. Panic attacks often begin in late adolescence or early adulthood, but not everyone who experiences panic attacks will develop panic disorder. Many people have just one attack and never have another. The tendency to develop panic attacks appears to be inherited.



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Diagnosis & Treatment

Panic attacks can occur at any time, even during sleep. An attack usually peaks within 10 minutes, but some symptoms may last much longer.

People who have full-blown, repeated panic attacks can become very disabled by their condition and should seek treatment before they start to avoid places or situations where panic attacks have occurred. For example, if a panic attack happened in an elevator, someone with panic disorder may develop a fear of elevators that could affect the choice of a job or an apartment, and restrict where that person can seek medical attention or enjoy entertainment.

Some people's lives become so restricted that they avoid normal activities, such as grocery shopping or driving. About one-third become housebound or are able to confront a feared situation only when accompanied by a spouse or other trusted person. When the condition progresses this far, it is called agoraphobia, or fear of open spaces.

Early treatment can often prevent agoraphobia, but people with panic disorder may sometimes go from doctor to doctor for years and visit the emergency room repeatedly before someone correctly diagnoses their condition. This is unfortunate, because panic disorder is one of the most treatable of all the anxiety disorders, responding in most cases to certain kinds of medication or certain kinds of cognitive psychotherapy, which help change thinking patterns that lead to fear and anxiety.

Panic disorder is often accompanied by other serious problems, such as depression, drug abuse, or alcoholism. These conditions need to be treated separately. Symptoms of depression include feelings of sadness or hopelessness, changes in appetite or sleep patterns, low energy, and difficulty concentrating. Most people with depression can be effectively treated with antidepressant medications, certain types of psychotherapy, or a combination of the two.

First, talk to your doctor about your symptoms. Your doctor should do an exam to make sure that another physical problem isn't causing the symptoms. The doctor may refer you to a mental health specialist.

Signs & Symptoms

People with panic disorder may have:

- Sudden and repeated attacks of fear
- A feeling of being out of control during a panic attack
- An intense worry about when the next attack will happen
- A fear or avoidance of places where panic attacks have occurred in the past
- Physical symptoms during an attack, such as a pounding or racing heart, sweating, breathing problems, weakness or dizziness, feeling hot or a cold chill, tingly or numb hands, chest pain, or stomach pain.





TakeCharge

WELCOA'S ONLINE SELF-CARE BULLETIN

Exercise Brings Bone Benefits That Last

Building bone as a young adult can have benefits that last a lifetime, a new study showed. The research also confirmed that remaining physically active as we get older can help us maintain bone strength.

Bone is a living tissue. It responds to physical activity by becoming heavier, bigger, and stronger. It does this best when we're young. Bone mass usually peaks when we're in our 20s. After that, we often begin to lose bone.

Studies of animals have shown that exercise during periods of rapid growth can lead to lifelong benefits in bone size and strength.

To see if the same holds true for humans, a team of National Institutes of Health (NIH)-funded scientists studied more than 100 professional baseball players at different stages of their careers. Baseball players were ideal subjects, because their throwing arms get a lot more action than their non-throwing arms. Baseball players also tend to retire from stressful throwing activities once they stop professional play. This allowed the scientists to look at the effects of physical activity long after intense throwing had ended.

The researchers found that the upper bones in the throwing arms of players were nearly twice as strong as the bones in non-throwing arms. Throwing arm bones had about 50% greater mass, size (total cross-sectional area), and thickness.

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As players got older, the bone mass benefits from throwing were gradually lost. But about half the bone size benefits and one-third of the bone strength benefits were maintained lifelong. Players who continued throwing during aging lost less bone and kept even more of the strength benefits.

“Exercise during youth adds extra layers to the outer surface of a bone to essentially make the bone bigger,” says study leader Dr. Stuart J. Warden of Indiana University. “The bigger bone generated by physical activity when young has a means of sticking around long term to keep the skeleton stronger.”

Why Does Bone Health Matter?

Our bones support us and allow us to move. They protect our brain, heart, and other organs from injury. Our bones also store minerals such as calcium and phosphorous, which help keep our bones strong, and release them into the body when we need them for other uses.

There are many things we can do to keep our bones healthy and strong. Eating foods rich in calcium and vitamin D, getting plenty of exercise, and having good health habits help keep our bones healthy.

But if we don't eat right and don't get enough of the right kinds of exercise, our bones can become weak and even break. Broken bones (called fractures) can be painful and sometimes need surgery to heal. They can also cause long-lasting health problems.

But the good news is that it is never too late to take care of your bones.

There are many things that can increase your chances of getting osteoporosis. These things are called “risk factors.” Some risk factors are things you can control, and some things are outside of your control.

Risk Factors You Can Control

- **Diet.** Getting too little calcium can increase your chances of getting osteoporosis. Not getting enough vitamin D can also increase your risk for the disease. Vitamin D is important because it helps the body use the calcium in your diet.
- **Physical activity.** Not exercising and not being active for long periods of time can increase your chances of getting osteoporosis. Like muscles, bones become stronger—and stay stronger—with regular exercise.
- **Body weight.** Being too thin makes you more likely to get osteoporosis.
- **Smoking.** Smoking cigarettes can keep your body from using the calcium in your diet. Also, women who smoke go through menopause earlier than those who don't smoke. These things can increase your risk for osteoporosis.
- **Alcohol.** People who drink a lot are more likely to get osteoporosis.
- **Medicines.** Certain medicines can cause bone loss. These include a type of medicine called glucocorticoids (gloo-ko-KOR-ti-koids). Glucocorticoids are given to people who have arthritis, asthma, and many other diseases. Some other medicines that prevent seizures and that treat endometriosis (en-do-me-tree-0-sis), a disease of the uterus, and cancer can cause bone loss, too.

Risk Factors You Cannot Control

- **Age.** Your chances of getting osteoporosis increase as you get older.
- **Gender.** You have a greater chance of getting osteoporosis if you are a woman. Women have smaller bones than men and lose bone faster than men do because of hormone changes that happen after menopause.
- **Ethnicity.** White women and Asian women are most likely to get osteoporosis. Hispanic women and African American women are also at risk, but less so.
- **Family history.** Having a close family member who has osteoporosis or has broken a bone may also increase your risk.



To Your Health

WELCOA'S ONLINE GENERAL WELLNESS BULLETIN

SHEDDING LIGHT ON HEALTH

Research Helps People & Pets

Where would we be without our furry friends? Pet dogs and cats stand by us with love and loyalty, sharing our lives' ups and downs. Our beloved pets can also share many of the same medical problems that we have, like asthma, diabetes, and even cancer. Doctors, veterinarians, and scientists work together to study diseases that affect both pets and people. The aim is to improve medical care for people as well as our companion animals.

More than half of U.S. households have at least one pet. In 2011, we had more than 144 million pet dogs and cats. Many people consider pets to be part of their family. And like any family member, pets can get sick.

Pet dogs, for instance, can develop cancer naturally just as people do. Pet cats, too, might inherit genes that raise their risk for conditions—like severe kidney disease—that can be similar to human disease. “Cats get asthma just like we do, and they can be allergic to dust mites just like us,” says Dr. Leslie Lyons, an expert in cat genetics at the University of Missouri.

“Cats can become obese from eating the wrong kinds of foods and just sitting around the house, which can raise the risk for diabetes, just like us.”

What Research Is Telling Us

Over the years, National Institutes of Health (NIH)-funded studies of dogs and cats with naturally occurring diseases have led to improved therapies for both people and pets. For example, researchers studied an aggressive type of childhood bone cancer that's rare in people (affecting about 600 children and teens a year) but common in dogs (affecting up to 15,000 a year). The cancer, called osteosarcoma, arises in large bones in the arms and upper legs. By studying pet dogs and people, researchers developed techniques that are now being used to prevent arm and leg amputations and sometimes cure the cancer.

In other research, NIH-funded scientists studied pet dogs with blood cancer to develop better treatments based on bone marrow transplants or stem cell therapies. The improved



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techniques have now been widely adopted for treating human cancers across the country. The therapies are also used to treat cancer in dogs at some veterinary hospitals.

These types of medical advances are made possible because owners of sick pets enrolled them in veterinary clinical trials. Such trials can help speed the discovery of new and effective therapies for human patients and ultimately improve care for pets too.

“This isn’t a new philosophy; certainly this type of comparative research has been going on for decades,” adds Dr. David Vail, a veterinarian and cancer specialist at the University of Wisconsin-Madison. “But, it’s probably been just in the last 10 years that clinical trials involving pets have become well-organized.”

The Link Between Pets & Humans

“Because NIH is concerned with human health, the goal of these studies is to develop therapies for people,” says Vail. “But at the end of the day, I’m a veterinarian, and so the two-way flow of information is important to me. I want these treatments to come back to my veterinary clinic.”

Although much NIH-funded research focuses on dogs, cats are also important in helping to understand human disease. Lyons studies cats with a condition called polycystic kidney disease (PKD). “It’s one of the more common inherited diseases in cats, especially Persian cats, and it’s a common inherited trait in humans,” Lyons says. PKD leads to harmful buildup of fluid-filled cysts on the kidneys.

PKD can hit cats hard when they’re about 7 years old. But it takes much longer to be noticed in people.

“In humans, the condition generally leads to kidney failure later in life, when people are in their 50s or 60s,” says Lyons. “We can’t stop this disease. There are no effective treatments that have been approved for humans that will slow progression of the cysts and delay the onset of kidney failure.”

Lyons and her team are now working to set up veterinary clinical trials for PKD. “If we could find a therapy that helps fix PKD in cats, we could make a lot of cats better. And then, most important, we may be able to develop effective treatments for humans,” says Lyons.

Healthy Pets & You

Whether human or pet, basic steps for staying healthy can be similar:

- **Get plenty of physical activity.** Activity can strengthen joints and muscles and improve heart health. Walk or run with your dog. Play often with your cat.
- **Maintain a healthy weight.** Excess weight in pets can raise the risk for some of the same conditions that can affect overweight humans: diabetes, joint problems, and certain cancers.
- **Eat a healthy diet, or a specialized diet if needed.** Ask your veterinarian about the right diet for your pet. Some “people foods” can be dangerous for pets.
- **Don’t smoke.** Secondhand smoke can harm your pets just like it does people.

