



Better Safe!



WELCOA'S ONLINE BULLETIN FOR YOUR FAMILY'S SAFETY

Stay Cool

Getting **Too Hot**
Can Be Dangerous

Many people love the warm summer months. But hot and humid days can sometimes be dangerous. It's not good for the body to be too hot for too long. Too much heat can damage your brain and other organs. It's important to keep your cool when the days are hot.

Your body has its own natural cooling system. Sweating is key to cooling when hot weather or exercise causes your body temperature to climb. When sweat dries, it carries heat away from your body's surface and lowers your temperature. When sweating isn't enough to help you cool down, you're at risk for a heat-related illness called hyperthermia.

Hyperthermia can happen to anyone. Older people, infants and young children, and people who are ill, obese or on certain medications are especially at risk. These people may be more sensitive to the effects of extreme heat and less likely to sense or respond to changes in temperature.

"High temperatures can cause various organs within the body not to function optimally," says Dr. Marie Bernard, deputy director of the National Institute on Aging. Excess body heat can stress the heart and harm the brain. It might even lead to a coma.

Hyperthermia can cause several heat-related illnesses, ranging from mild to serious. These include heat cramps, heat edema, heat exhaustion and heat stroke.

Heat cramps are the painful tightening of muscles in your stomach, arms or legs. If you have heat cramps, find a way to cool your body and be sure to drink plenty of fluids. Heat edema is a swelling in your ankles and feet when you get hot. Elevating your legs should help. If that doesn't work fairly quickly, check with a health professional.



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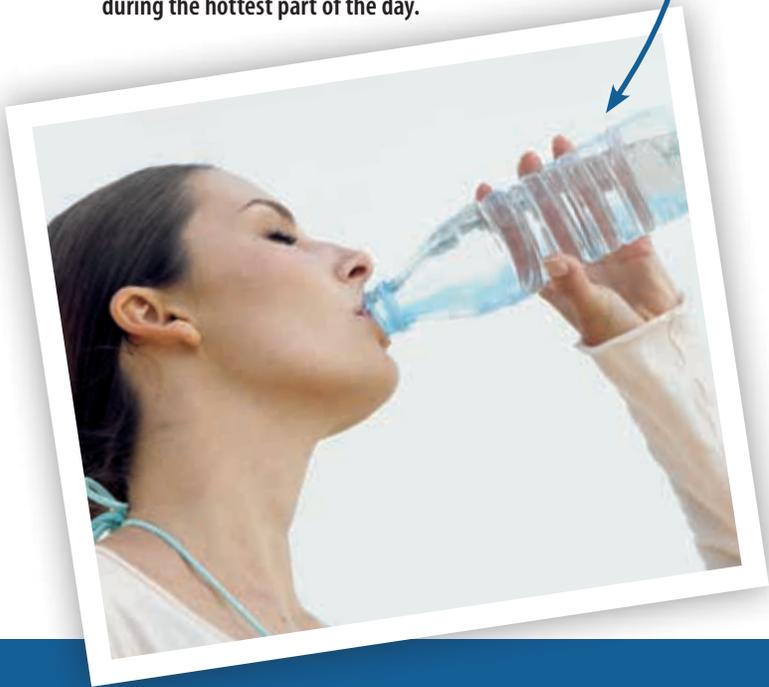




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Keeping Cool

- Get out of the sun and into a cool place.
- Drink plenty of liquids, especially water. Avoid drinks that contain alcohol.
- Limit use of the oven if you don't have air conditioning.
- Dress for the weather. Wear light-colored, loose-fitting clothing.
- Shower, bathe or sponge off with cool water.
- Cover windows with shades, blinds or curtains during the hottest part of the day.



Listen To Your Body

Heat exhaustion is a warning that your body can no longer keep itself cool. You might feel dizzy, thirsty, weak, uncoordinated and nauseated. Your skin might feel cold and clammy, and you may have a rapid pulse. If this happens, drink plenty of fluids and rest in a cool place. If you're not careful, heat exhaustion can progress to heat stroke.

Heat stroke is a life-threatening form of hyperthermia that occurs when your body temperature reaches 104° Fahrenheit or more. Heat stroke can lead to confusion, fainting, staggering, strange behavior or dry, flushed skin. Heat stroke is a medical emergency.

"If you and a loved one are at a picnic, for example, and it's very hot and humid that day, and they start complaining of being dizzy or seem disoriented, you need to be very concerned," says Bernard. "You need to get them into a cool place, put cool compresses on their neck and wrists, and call 911."

Air conditioning is the best way to protect against hyperthermia. If you don't have air conditioning, go to places that are cool on hot and humid days. Try community centers, shopping malls, movie theaters, libraries or the homes of friends and family.

Heat-related illness is preventable. Still, hundreds of deaths from extreme heat events occur in the United States each year. It's important to be aware of who's at greatest risk so you can take steps to help beat the heat.

Heat stroke is a life-threatening form of hyperthermia that occurs when your body temperature reaches 104 Fahrenheit or more.



DAY IN DAY OUT

WELCOA'S ONLINE BULLETIN FOR YOUR LIFESTYLE



Let Baby Set The Delivery Date

Wait Until 39 Weeks If You Can

We tend to think of pregnancy as lasting for 9 months. But ideally it should last for nearly 10 months. Research shows that babies are born healthier if they have at least 39 weeks to grow in the womb.

In recent years, there's been a trend toward earlier deliveries, as more women are choosing the date they'll give birth. This is known as an elective delivery. Studies suggest that the number of elective deliveries rose dramatically from 1990 to the mid-2000s.

If there's a particular medical reason to deliver early, then it's best not to wait, says Dr. Catherine Spong, a pregnancy expert at the National Institutes of Health (NIH). "But if the mother and baby are healthy, there's no benefit to delivering the baby early," she says. In fact, delivering early can create lasting health problems. Even women of advanced maternal age, older than 35, should wait until at least 39 weeks unless there are medical reasons to deliver early.

"We've gotten to the point where people feel they can choose the timing of their delivery," says Spong. "But in reality, that baby, in the last 4 weeks of pregnancy, is doing a huge amount of developing."

A Few Weeks Can Make A Big Difference

Those last few weeks can make a big difference. At 39 to 40 weeks of pregnancy, a baby's brain weighs one-third more than it does at 35 weeks. The lungs and liver also continue to develop up to 39 weeks. And those last few weeks allow time for layers of fat to grow under the baby's skin, which helps keep the infant warm after birth.

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Studies have found a greater risk of serious medical complications—such as dangerous bloodstream infections and breathing and feeding problems—in babies born before 39 weeks of gestation. “While there are risks to every pregnancy, the risks to the baby are higher if all organs are not completely developed,” Spong says.

What Research Reveals

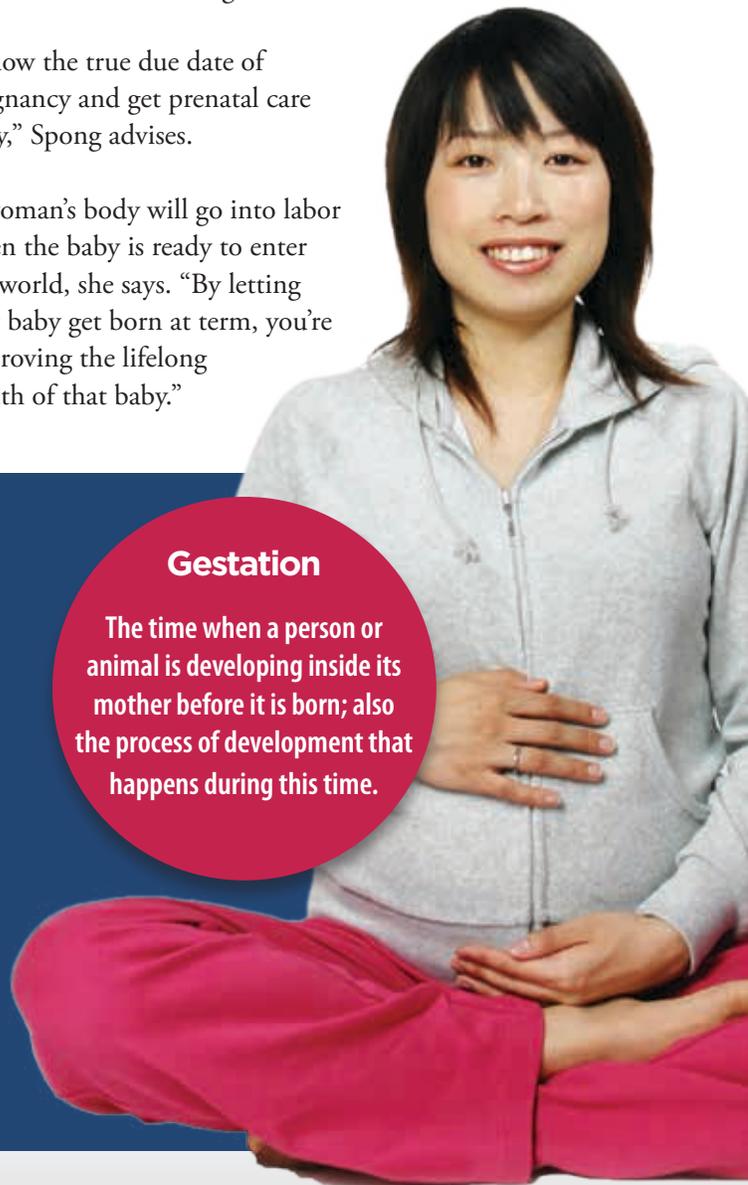
One NIH-funded study looked at more than 13,000 women who gave birth by elective cesarean delivery (C-section) at 37 weeks or later. The babies delivered at 37 weeks were twice as likely as those born at 39 weeks to have complications—such as difficulty breathing, heart problems and seizures—that usually require time in a neonatal intensive care unit.

Moms who choose to give birth early may also face their own health challenges. They have a greater chance of

postpartum (after childbirth) depression; stronger, more frequent contractions during labor; and an increased chance of needing a C-section. Women who have a C-section have a greater risk of infection and a longer recovery time than women who’ve had a vaginal birth.

“Know the true due date of pregnancy and get prenatal care early,” Spong advises.

A woman’s body will go into labor when the baby is ready to enter the world, she says. “By letting that baby get born at term, you’re improving the lifelong health of that baby.”



For a Healthy Pregnancy

- + See your health care provider for regular prenatal care.
- + Talk to your doctor about the medicines you take. Some may not be safe during pregnancy.
- + Follow a healthy diet.
- + Take folic acid—at least 400 micrograms each day.
- + Stay active. Ask your health care provider about physical activity that’s safe for you.
- + Avoid drinking alcohol and smoking.
- + Control any existing conditions such as diabetes.
- + If there are no medical reasons to deliver early, wait until at least 39 weeks for delivery.

Gestation

The time when a person or animal is developing inside its mother before it is born; also the process of development that happens during this time.



How To Whip Whooping Cough

PREVENTING PERTUSSIS

Many people think of whooping cough as a childhood disease. But it can strike people of any age. Whooping cough—also known as pertussis—causes uncontrollable coughing that makes it hard to catch your breath. The disease can be deadly, especially in newborns.

Vaccines have helped keep pertussis in check. Beginning in the 1940s, widespread vaccination led to a nationwide drop in the number of pertussis cases—from about 200,000 a year to a record low of about 1,000 in 1976. Recently, though, pertussis has been making a comeback. Last year, the number of U.S. cases topped more than 41,000—the highest number in 50 years.

Whooping cough is a highly contagious bacterial infection that affects the lungs and airways. The bacteria spread through the air, from one person to another, when an infected person coughs or sneezes.

Whooping Cough Warning Signs

Early signs of pertussis can be hard to spot. Symptoms usually begin quietly about a week after infection, with sniffles and sneezes that you might mistake for allergies or a mild cold. Treatment with antibiotics in this early phase can help reduce symptoms and keep the disease from spreading to others.

The next phase of pertussis begins about 10 days after infection. “The major

symptom is persistent, violent coughing. You might cough so hard that you throw up or struggle to breathe,” says Dr. Xin-Xing Gu, an infectious disease expert at the National Institutes of Health (NIH). “With babies, you might hear a sharp inward breath and a whooping sound that’s very unique.” But not everyone who’s infected makes the whooping sound that gives the disease its name.

The coughing phase can last for 10 weeks or more. The disease is most contagious during the early cold-like symptoms and for at least 2 weeks after the coughing phase begins.

Whooping cough is most harmful to young children. “Infants are at

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greatest risk, especially when they're under 3 months of age—too young to be protected by the vaccine," says Dr. Kathryn Edwards, a pediatrician and vaccine researcher at Vanderbilt University School of Medicine. "Coughing spells can interrupt breathing, and little babies may turn blue. They can die from not getting their next breath."

Preventing Pertussis

Vaccines are the best way to prevent pertussis. The original vaccine was made of whole, inactivated pertussis bacteria. These whole-cell vaccines greatly reduced deaths and infections but had many side effects.

More than 3 decades ago, NIH-funded researchers, including Edwards, tested "acellular" pertussis vaccines in early clinical trials. These new vaccines are made from only parts of the bacteria, and they have fewer side effects than the original vaccine. Since 1997, all pertussis vaccines in the U.S. have been acellular.

Children in the U.S. typically get a series of 5 pertussis shots between 2 months and 6 years of age as part of their routine care. The acellular pertussis vaccine, combined with the diphtheria and tetanus vaccine, is called DTaP. A single booster shot, called Tdap, is given to pre-teens (ages 11 or 12) to increase protection.

To prevent disease in newborns before they can be vaccinated, the CDC now recommends that expectant mothers get the Tdap vaccine during the second half of each pregnancy. "Any adults who will be around infants—parents, grandparents and childcare providers—should also get the booster," says Edwards.

Talk to your doctor to make sure your vaccinations are up to date. Protect yourself and those around you from pertussis.

PERTUSSIS SYMPTOMS

Pertussis often starts with:

- A runny or stuffy nose
- Sneezing
- A mild cough
- A pause in breathing (apnea) in infants

After 1 to 2 weeks:

- Coughing fits make it hard to breathe, eat, drink or sleep.
- Coughing may lead to vomiting or exhaustion.
- Rapid coughs may be followed by a high-pitched "whooping" sound.
- Babies and youngsters may turn blue from lack of oxygen.



Considering Probiotics?



Probiotics, Prebiotics, and Synbiotics, Oh my!

Probiotics are not the same as prebiotics—nondigestible substances that stimulate the growth and/or activity of potentially beneficial microorganisms. The term “synbiotics” refers to products that combine probiotics and prebiotics.

You might have noticed “probiotics” listed on the label of your yogurt. Maybe you’ve seen probiotic pills on store shelves next to vitamins or other supplements. But what exactly are probiotics?

Probiotics are live microbes, such as bacteria, similar to those found naturally in the human body. We tend to think of microbes as harmful, but certain kinds are good for us and help the body to function properly.

Probiotics are found in some foods or are taken by mouth as dietary supplements. Probiotics also come in other products, such as creams.

About Probiotics

The concept behind probiotics was introduced in the early 20th century, when Nobel laureate Elie Metchnikoff, known as the “father of probiotics,” proposed in *The Prolongation of Life: Optimistic Studies*

that ingesting microorganisms could have substantial health benefits for humans. Microorganisms are invisible to the naked eye and exist virtually everywhere. Scientists continued to investigate the concept, and the term “probiotics”—meaning “for life”—eventually came into use.

Picturing the human body as a “host” for bacteria and other microorganisms is helpful in understanding probiotics. The body, especially the lower gastrointestinal tract (the gut), contains a complex and diverse community of bacteria. (In the body of a healthy adult, cells of microorganisms are estimated to outnumber human cells by a factor of ten to one.) Although we tend to think of bacteria as harmful “germs,” many bacteria actually help the body function properly. Most probiotics are bacteria similar to the beneficial bacteria found naturally in the human gut.

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Key Points

- ✓ Although some probiotic formulations have shown promise in research, strong scientific evidence to support specific uses of probiotics for most conditions is lacking.
- ✓ Studies suggest that probiotics usually have few side effects. However, the data on safety, particularly long-term safety, are limited, and the risk of serious side effects may be greater in people who have underlying health conditions.
- ✓ If you are considering a probiotic dietary supplement, consult your health care provider first. Do not replace scientifically proven treatments with unproven products or practices.
- ✓ Tell all your healthcare providers about any complementary health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

Various mechanisms may account for the effects of probiotics on human health. Possible mechanisms include altering the intestinal “microecology” (e.g., reducing harmful organisms in the intestine), producing antimicrobial compounds (substances that destroy or suppress the growth of microorganisms), and stimulating the body’s immune response.

Probiotics commonly used in the United States include *Lactobacillus* and *Bifidobacterium*. There are many specific types of bacteria within each of these two broad groups, and health benefits associated with one type may not hold true for others.

Are There Health Benefits?

Some evidence suggests that probiotics may relieve diarrhea, ease irritable bowel syndrome and reduce symptoms of atopic eczema, an itchy skin condition usually seen in infants. Probiotics generally have few side effects, but there’s little data about their long-term safety.

The U.S. Food and Drug Administration hasn’t approved any health claims for probiotics. Although some products have shown promise, there’s little evidence to support specific uses of probiotics for most conditions.

Talk with your healthcare provider before taking probiotics for a health condition. These products contain different types of bacteria, and their effects on the body can vary from person to person. Probiotics might cause serious side effects in people with underlying health conditions.