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ROUNDS

HARTFORD HOSPITAL'S WELLNESS MAGAZINE



Cold (Sore) Comfort

Cold sores are unsightly, painful and contagious. Outbreaks are caused by a *herpes simplex* virus that lies dormant in the sensory nervous system until something triggers it to begin replicating. Causes of herpes reactivation include stress, fever, menstruation, gastrointestinal disturbance, infection, cold, fatigue and sunlight.

Most common on the lips, cold sores or “fever blisters” may also appear around the nostrils. Recurrent infection is usually speedily attacked by your immune system, and skin or mucous membranes heal within 10 to 14 days.

Typical cold sore outbreaks may be preceded by a tingling, burning or itching sensation, but not everyone experiences this so called “prodromal” stage lasting a few hours. Cold sores are most contagious when the blisters are newly formed, during the first couple days of an outbreak. Avoid touching blisters to prevent spread to the eyes. Blisters quickly dry to form an unsightly scab that usually heals without leaving a permanent scar.

Herpes simplex virus type 1 (HSV-1) generally only infects those body tissues “above the waistline,” while HSV-2 virus

is known as “genital herpes.” The HSV-1 virus can also be sexually transmitted. HSV-2 usually does not cause cold sores.

Since no immediate “cure” for the latent infection exists, treatments can only control the outbreak. Topical preparations have been shown in controlled clinical trials to influence the eruption or duration of cold sores, if applied early enough. Prescription creams containing antiviral medications like Penciclovir (Denavir) help most if applied when tingling starts. Oral medications may also be prescribed.

S A F E T Y T I P S



Slip Safe

Unsafe shoes can lead to falls and injuries, especially among the elderly, warns Mary B. King, M.D. of Hartford Hospital's Geriatric Program. Choose shoes with soles that aren't too thick or soft—slip-on loafers or sneakers with secure ties or Velcro closures. Avoid backless slippers, slippery leather soles or loose shoes that can slip at the heel.

- Remove throw rugs, runners, cords and small objects.
- Clear pathways and install railings and grab bars.
- Use slip-resistant mats at sinks and a non-skid bath mat.
- Never wax floors.
- Tack down or tape carpet edges.
- Mark thresholds with fluorescent tape.
- Use high-wattage light bulbs and night lights.
- Avoid step stools.
- Keep flashlights at top and bottom of stairs.
- Store commonly used items on lower shelves or countertops.

Hartford Hospital's Geriatric Program does consultations for older persons who are at risk for falls. Ask your doctor about your risk of falling, or call (860) 545-7043.

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ROUNDS is a quarterly publication of Hartford Hospital. It is not intended to provide medical advice on individual health matters. Please consult your physician for any health concerns.

PHYSICIAN PROFILE

Witold Waberski, M.D.

Witold Waberski, M.D., is director of the Department of Anesthesiology at Hartford Hospital. He is Board-certified in anesthesiology and has earned subspecialty qualifications in critical care medicine. A native of Poland, he earned his medical degree from Warsaw University's School of Medicine in 1980. He continued his training with residency at Hartford Hospital and a fellowship in critical care medicine and cardiac anesthesia at Hershey Medical Center—Penn State University. He joined Hartford Hospital's attending staff in 1985. Prior to his appointment as director, Dr. Waberski was the assistant director of the Department of Anesthesiology from 1996–2002.

He is married to Joanna Fogg-Waberski, M.D., a geriatric psychiatrist at The Institute of Living. His hobbies include skiing and computer programming. He has worked closely with the hospital's Information Services Department in promoting information technology solutions for better patient management.



Herbal Harms

“Natural” Supplements Pose Anesthesia Risk

Though herbs are “natural,” they are not always safe. Some herbal supplements cause dangerous interactions with prescription drugs, while others may be fatal if taken just before surgery.

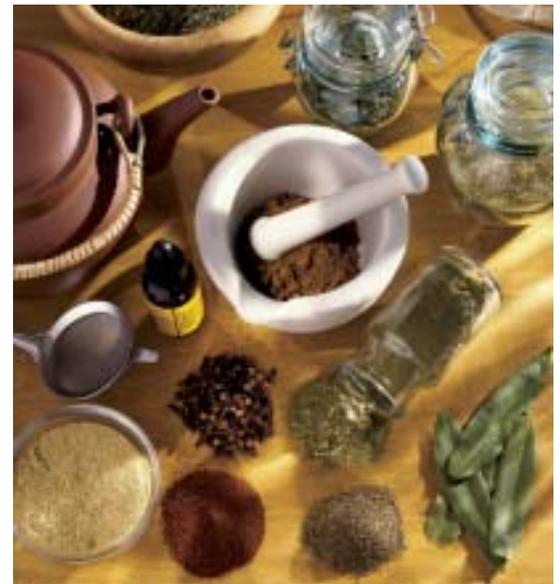
Recently a young woman who went in for a routine gynecological procedure suffered a cardiovascular collapse on the operating table. Anesthesiologists found out later that she'd been taking a diet aid containing ephedra, an amphetamine-like herbal supplement that speeds the heart and suppresses the appetite. “Her blood pressure and heart rate dropped,” recalls Witold Waberski, M.D., director of anesthesiology at Hartford Hospital. “She was difficult to resuscitate, her lungs filled with fluid and she spent 12 hours on a respirator until she could breathe on her own.”

U.S. adults spend more than \$6 billion annually on herbs and billions more on vitamins and dietary supplements. More than half of American adults take herbal products, but surveys show that pre-operative patients don't realize they're in danger. Seven out of 10 supplement users never tell their physicians about herbal use. Even more worrisome, 18 percent mix herbs with their prescription medications.

Under federal law, the Food and Drug Administration has no power to regulate dietary supplements the way it does pharmaceuticals. Even over-the-counter drugs like aspirin must be tested for safety and effectiveness. But the burden of proof is reversed for dietary supplements. Before a supplement can be removed from the market, the FDA must prove it's not safe.

Now anesthesiologists are warning people to stop taking herbal drugs prior to surgery because of potentially lethal risks. Patients are showing up for elective surgery and finding out they'll have to wait a couple of weeks because they've been taking herbs like St. John's wort, Ginkgo biloba or ephedra. Some herbs prolong the effects of anesthesia, while others raise blood pressure or increase bleeding risk.

Dr. Waberski advises patients to stop taking herbal medications at least two to three weeks before surgery so the herbs can be



cleared from the body. If there is not enough time to stop the herbal before an emergency procedure, bring the product, in its original container, to the hospital.

“Often we can't interview trauma victims in the intensive care unit, so we have to ask family members what patients have been taking,” says Jennifer Bell, R.D., C.D.-N., C.N.S.D., a dietitian in the ICU. “We know the consequences that may occur with herb-drug and vitamin-drug interactions, so it's logical to consider the potential for problematic interactions when mixing certain vitamins and herbs. Minimal research doesn't give the green light for assuming these interactions are necessarily safe.”

“People think ‘natural’ herbs are better than ‘synthetic’ drugs,” adds Dr. Waberski. “Herbs aren't harmless—they have the potential for serious adverse health effects. The so-called ‘performance enhancers’ that mix caffeine with ephedra are dangerous if taken for more than 12 weeks. It says so on the label.”

So far, there have been no double-blind, placebo-controlled studies of herbal-anesthesia interactions or outcomes. Tell your doctor if you're taking any vitamin or herbal supplement, including black cohosh, echinacea, feverfew, garlic, ginger, ginseng, goldenseal, hawthorn, kava-kava, licorice, lobelia, saw palmetto or valerian.

At least 20 states and the National Football League have banned or restricted sales of ephedra-containing supplements. The amount and purity of herbal active ingredients vary greatly from product to product, since doses are not standardized and other ingredients may be added. No one knows how much of each ingredient is safe, particularly with long-term use. One thing doctors do know for sure is that herbs and anesthesia can be a deadly mix.

Knee News: Cartilage Alternative to Replacement Surgery

When cartilage in the knee deteriorates, worsening pain, persistent swelling and disability result. Now an innovative alternative to knee replacement surgery can help people with traumatic injury or degenerative arthritis regrow missing cartilage from their own cells.

In 1997, Genzyme Biosurgery's *Carticel* became the first cell therapy product to be approved by the Food and Drug Administration. Articular cartilage regeneration and repair is a procedure that lessens trauma to the tissues and speeds recovery times. *Carticel* is not indicated as a treatment for people suffering from advanced osteoarthritis.

"Patients report good to excellent results in lessening of pain and swelling, especially when trauma is confined to a contained, focal area," explains Christopher J. Lena, M.D., the first orthopedic surgeon to perform the procedure at Hartford Hospital. "We can restore normal functioning and put off knee replacement surgery."

Once damaged, joint cartilage does not normally regenerate in the body. In addition to causing pain and restricting mobility, chronic injuries to joint cartilage eventually lead to further deterioration of the joint surface. Even sleeping



Dr. Christopher Lena reports excellent results with a new cartilage regeneration procedure.

on the affected knee can cause stiffness and bothersome pain. Arthroscopic surgery to smooth the surface of the damaged cartilage area may not completely eliminate pain and swelling, especially with activity. *Carticel* can be used to treat patients who have not responded adequately to a prior surgical repair.

Carticel involves culturing and regrowing the patient's own cartilage cells. The culturing process takes three months to produce viable cells, and then six to nine months to regrow damaged tissues. The procedure is often combined with limb realignment procedures or meniscal replacement to protect the damaged knee joint as it heals. Most patients are back to full weight-bearing within six to eight weeks and resume physical activity within a year.

"*Carticel* is not for everyone," says Dr. Lena, who also performs arthroscopic surgery and joint replacements as a surgeon with Orthopedic Associates of Hartford. "It works best for younger patients with trauma rather than arthritis." Approximately 200,000 total knee replacement operations are performed annually. The artificial joint generally lasts only 10 to 15 years and is therefore not recommended for people under the age of 50.

What's going around...News & Breakthroughs

Cancer Answer?

The DBC2 gene—a tumor suppressor—is turned off in nearly 60% of breast cancer tumors and 50% of lung cancer tumors, say researchers at New York's Cold Spring Harbor Laboratories and the University of Washington. DBC2, which stops proliferation of abnormal cells, may be implicated in the 90% of breast cancers afflicting women without a family history of the disease.

CHF Racial Inequality

Two gene pairs that rarely occur together in Caucasians raise the risk of congestive heart failure (CHF) tenfold in people of African heritage with both gene pairs, reports the *New England Journal of Medicine*. CHF afflicts 4.8 million Americans. The genetic combination may account for a quarter of CHF diagnosed annually in African Americans, according to the University of Cincinnati College of Medicine.

Fat Facts

About 59 million people—one in every three U.S. adults—are obese and the number of overweight children has tripled in the last two decades, says the National Center for Health Statistics. Bigger portion sizes, eating out more frequently and lack of exercise are all to blame. Obesity increases the risk of diabetes, heart disease, stroke, high blood pressure and some cancers.

Antibiotics and Asthma

Antibiotic use during pregnancy may raise the risk of a child's developing asthma or other allergic diseases like eczema and hay fever in childhood, reports the *American Journal of Respiratory and Critical Care Medicine*. A recent study shows that the more antibiotics a pregnant woman takes, the more likely her child will suffer from asthma. Childhood asthma rates have risen dramatically in recent years.

Endovascular Neurosurgery: Pioneering Minimally Invasive Therapies for the Brain

When the normal functioning of the brain is disrupted by stroke or neurological problems, craniotomy (removal of part of the skull) was the only way to access the brain for delicate, life-saving surgery. Now, armed with new tools and technology, physicians called endovascular neurosurgeons or interventional neuroradiologists are navigating vascular pathways in the brain by snaking catheters into position through tiny incisions in the groin, in much the same way that interventional cardiologists in the “cath lab” repair blockages in the heart.



Dr. Howard Young

Repair of blood vessels in the brain that have been closed off by stroke or disrupted by cancer is now routine for these physicians, who also mend brain aneurysms—weakened, thinned parts of a blood vessel that can rupture and cause fatal bleeding.

“We use fluoroscopy [X-rays] to guide us,” explains Gary Spiegel, M.D., a neurointerventional radiologist who is a medical director of Hartford Hospital’s Stroke Center and a member of Jefferson X-Ray Group. “Long scalp incisions, bone saws, and brain retractors have been replaced by a nick in the skin over the femoral artery at the groin,” says Dr. Spiegel. “Long plastic catheters—some finer than a strand of angel hair pasta—are used to deliver coils, sealants, clot-dissolving medicines, or dilating balloons to the affected area of the brain.”

“Neurointerventional radiology covers the nervous system, head and neck, brain and spine,” adds neuroradiologist Howard Young, M.D., of the Connecticut Vascular Institute. “We do everything from delivering a stent to open up the carotid artery to plugging up a bleeding vessel in the brain.”

Trauma or tumors can trigger life-threatening “blow-outs” or uncontrollable nosebleeds. “We can stop urgent bleeding with a technique called embolization,” says Dr. Young. “We use microcatheters to deliver tiny plastic particles, coils, or glue that plug the vessel and stop the bleeding. Stents, coils and clot retrieval devices, delivered in minimally invasive ways, are providing treatment options that did not exist until very recently.”

Hartford Hospital’s Stroke Center provides rapid treatment in the critical minutes just after a stroke, including major advances in reopening vessels and rapidly restoring blood supply to the brain. Hartford Hospital has the most active comprehensive stroke center in Connecticut. Construction has now begun on a state-of-the-art, three-dimensional angiographic suite to be used for neurointerventional procedures that will be the only one of its kind in Connecticut.



Dr. Gary Spiegel

Melanoma Mortality

Melanoma deaths have plummeted among Americans aged 20 to 44 years over the past three decades, say researchers at Boston University. Light-skinned people, most vulnerable to melanoma, have heeded public education warnings about the dangers of too much sun. The most severe form of skin cancer, melanoma will be diagnosed in more than 53,000 people this year and will kill about 7,400.

Prostate Peril

The EZH2 gene appears to be a lethal biomarker that is a more accurate predictor of a patient’s survival than PSA levels, say researchers at the University of Michigan Medical School. Prostate cancer patients with higher levels of EZH2 proteins were more likely to get the deadlier form of the disease. The aggressive, metastatic form kills more than 30,000 American men each year.

The Skinny on Eczema

Eczema sufferers may be vulnerable to staph infections because they lack germ-fighting chemicals normally present in the skin, reports the *New England Journal of Medicine*. Researchers hope the findings will lead to development of creams to replace antibiotic proteins missing in the skin of those with eczema, an itchy condition that affects about 15 million people in the United States.

1,000 Uses Plus One

What fixes things around the house, holds stuff together, and takes off warts? Researchers at Madigan Army Medical Center say duct tape is a more effective, less painful alternative to liquid nitrogen used to freeze warts. Duct tape apparently causes an immune system reaction that attacks the growths. Study participants taped, soaked and scraped the warts for up to two months.

Surgeons Are the Coolest

Surgery goes better when patients are warm, but surgical staff draped in sterile layers under oppressive lights can't work in stifling, overheated operating rooms. Surgeons do best at temperatures of 60–66° F, while the optimum temperature for patients is over 75° F.

Hypothermia—low body temperature—is not only uncomfortable for patients, but has also been linked to post-surgical cardiac complications, increased blood loss during surgery, and a higher incidence of surgical wound infections.

Discomfort, including uncontrollable shivering, is a common complaint of post-operative hypothermic patients. Even more dangerous is when the shivering stops and the heart rate drops.

“Patients in operating rooms are exposed to unique conditions that facilitate the onset of hypothermia,” says Joseph H. McIsaac, III, M.D., M.S., an attending anesthesiologist at Hartford Hospital. “Anesthesia coupled with heat loss can trigger abnormal heart rhythms and other problems.”

Various warming devices, such as heated blankets and forced-air warming, have been tried to keep patients comfortable in operating rooms. When surgery requires exposure of large areas of

the body, merely covering the feet, arms or head may be insufficient to warm the patient. Children and the elderly are especially vulnerable to the cold.

To solve the heat-loss problem, Dr. McIsaac has co-invented a revolutionary surgical cooling garment to provide cool comfort to surgeons in operating rooms. Working in collaboration with engineers at Hamilton Sunstrand—the Windsor Locks aerospace company that makes space suits—Dr. McIsaac is in the process of testing his sixth prototype garment.

The garment resembles a lightweight vest, tethered to a water pump and worn over surgical scrubs. Made from material similar to Gore-Tex, it features a

semi-permeable membrane that cools by drawing perspiration and condensation away from the skin. Coolant is pumped through a circulating system under negative pressure to prevent leakage even in the event of a puncture.

Though the patent was awarded last February, the garment is still undergoing clinical testing. Eventually, Dr. McIsaac plans to market the device in partnership with Hamilton Sunstrand and Hartford Hospital through his company, Mountain Laurel Biomedical, LLC. Dr. McIsaac has also invented an electronic stethoscope and monitoring systems for the operating room.

Cereal Killer: Acrylamide Is Suspect



The Food and Drug Administration (FDA) is studying a potentially cancer-causing chemical called *acrylamide* found in starchy snacks like cereals, potato chips, french fries, cookies and even bread. Researchers think the worrisome compound results when the amino acid asparagine is heated with glucose or other sugars. Foods fried or baked, but not boiled, at prolonged high temperatures often contain high levels of the carcinogenic contaminant.

Swedish scientists warned last year that the suspected carcinogen is widespread in carbohydrate-rich foods at levels far exceeding limits set by the Environmental Protection Agency. Although trace amounts of the chemical—used to produce plastics and dyes—are found in drinking water, researchers were appalled to discover high levels in everyday foods. Now the FDA has vowed to determine where it occurs and what, if any, health risk it poses.

“Acrylamide might occur in high enough levels that people should be cautious about eating fast foods like french fries,” warns Andrew L. Salner, M.D., director of Hartford Hospital’s Cancer Program at the Helen and Harry Gray Cancer Center. “Cancer has a long latency period, which means it’s difficult to do retrospective studies. How can we remember what we ate 20 or 30 years ago?”

Based on animal studies, acrylamide is considered a probable human carcinogen. “The literature increasingly suggests the importance of regular exercise and optimum body weight in preventing cancer,” says Dr. Salner. “How can we link dietary factors with cancer development? Who knows what role environmental exposures to hormones or pesticides play? We don’t fully understand the molecular nature of cancer cells or the effects of chemicals.”

Dr. Salner is pessimistic about getting people to stop eating fast food because of the probable carcinogenic action of acrylamide or even to avoid obesity. He notes that despite the strong link between cancer and tobacco, nearly a third of teens smoke.



To help prevent cancer, Dr. Salner suggests eating a varied diet with five or more daily servings of high-fiber fruits and vegetables, limiting alcohol, exercising four times weekly and maintaining an ideal body weight.

Autism and Asperger's: New Hope?



Autism, Asperger's syndrome and other Pervasive Developmental Disorders (PDDs) are exploding in incidence in the United States. No one knows whether the increase reflects rising numbers or new awareness of an existing problem.

Children with PDD have a brain-based developmental disorder that interferes with the perception of social cues and sensory information. It's known that children with PDD suffer from a bewildering overload of sensory data. "My hearing is like having a sound amplifier set on maximum loudness," recalls an autistic child. "I pulled away when people tried to hug me, because being touched sent an overwhelming tidal wave of stimulation through my body."

Researchers note that boys—sufferers are usually male—with the Asperger's form of autism often display phenomenal gifts of rote memory or mathematical ability coupled with dismal social reciprocity. Asperger's is the curse of Silicon Valley, and some people think the recent 500 percent rise in autism in California may point to a genetic predisposition among people who are technologically or mathematically inclined.

Fortunately, treatment options for PDD are also exploding. "We have new interventions in the areas of occupational therapy, speech and language therapy and pharmacotherapy," says Dr. Namerow. "However, when medicating children we have to carefully balance risks and benefits. The good news is that there are safer drugs available."

Nearly six decades after autism was first recognized, a new Prozac-like drug appears to alleviate some symptoms of PDD. Citalopram (Celexa) is the latest antidepressant in the family of selective serotonin reuptake inhibitors to be approved in the United States.

SSRIs work by blocking the reuptake of the neurotransmitter serotonin in the brain. After treating 15 patients with PDD with the drug, Dr. Namerow found that anxiety symptoms improved significantly in 66 percent of patients, mood symptoms improved significantly in 47 percent and

73 percent showed improvement in clinical evaluation scores. Mild side effects were reported by 33 percent.

Children with PDD often exhibit repetitive, idiosyncratic behaviors and seem oddly unwilling to play or socially engage. Citalopram holds promise for children who are anxious or moody, though it may not help with core deficits in speech or social behavior. The hope is that if kids become less anxious or moody, they will be able to take advantage of therapies already in place.

"The payoff in parenting is often the hug or the smile you get from your child," says Dr. Namerow. "The struggle with these kids is how to feel good as parents when you rarely get that kind of response. My work keeps me in awe of how families are meeting these profound challenges."

w a r n i n g s i g n s

ADULT Attention Deficit Disorder

Many parents recognize these symptoms of "classic" ADD: hyperactivity, distractibility, impulsivity, disorganization, social isolation.

Adults may suffer other problems in addition to the "core" features of ADD. Depending on the area of abnormality seen in a brain scan, symptoms may include:

- hyperfocusing
- oppositional behavior
- hypersensitivity to noise or touch
- aggressiveness and negativity
- inflexibility
- substance abuse

Medications like Ritalin are often prescribed, though some forms of ADD respond better to antidepressants or other drugs. Supplements, dietary changes and exercise may also help. Consult a mental health practitioner who specializes in ADD treatment.

Dips are a staple American hors d'oeuvre for those who enjoy entertaining, says Sharon Garfinkel, MS, RD, CD-N, a relief clinical dietician at Hartford Hospital who serves as preceptor to six University of Connecticut interns doing a clinical rotation in food service. "Quick and easy to prepare, dips can be built on a number of bases, including sour cream, yogurt, soft cheeses, mayonnaise and cream cheese," she explains. "To lower the fat in dip recipes, use reduced-fat versions of these products." Here are two versions of the same recipe—one with low-fat and the other with fat-free sour cream.

Spinach Dip

Serving dishes, napkins and table runner, courtesy of the Hartford Hospital Auxiliary Gift Shop.



Spinach Dip
(low-fat sour cream, salt)
Calories: 56
Protein: 5 gm
Carbohydrate: 4 gm
Fiber: 0.6 gm
Total Fat: 2 gm
Cholesterol: 7 gm
Vit. A: 42%*
Vit. C: 10%*
Calcium: 15%
Sodium: 235 mg

* Percentage of daily needs (Daily Values)

Recipe analyzed by Brunella Ibarrola, MS, RD, CD-N.

Low-Fat Spinach Dip
(fat-free sour cream, no salt)
Calories: 49
Protein: 5 gm
Carbohydrate: 4.75 gm
Fiber: 0.6 gm
Total Fat: 1 gm
Cholesterol: 5 gm
Vit. A 42%*
Vit. C: 10%*
Calcium: 15%
Sodium: 208 mg

Ingredients

Nonstick cooking spray
1/2 cup finely chopped onion
Two 10-oz. packages frozen, chopped spinach, thawed and squeezed dry
One 8-oz. package fat-free cream cheese
One 8-oz. carton low-fat or fat-free sour cream
3/4 cup Parmesan cheese
One 14-oz. can artichoke hearts, chopped
Crushed red pepper flakes, to taste
1/4 tsp. salt (optional)

Preparation

Lightly coat a skillet with nonstick cooking spray. Cook and stir onion over medium heat until transparent, about 5 minutes. Add spinach and cook until thoroughly heated, 1-2 minutes. Reduce heat; add cream cheese. Stir until melted and smooth. Stir in sour cream, Parmesan cheese and artichokes. Remove from heat. Season with red and black pepper and salt, if desired. Serve with fresh vegetables and nonfat crackers. (Serves 20)