Get back in shape after a heart attack

Are your child’s worries cause for greater concern?

Finally, a solution for stubborn leg wounds

The Age of Resilience

Johns Hopkins geriatricians help seniors stay healthy, vital and fit
THAT CERTAIN ACTIVITIES and substances are pleasurable is not news. But understanding why is the subject of continuous research.

David J. Linden, Ph.D., a professor of neuroscience at Johns Hopkins University School of Medicine, has significantly advanced our knowledge about pleasure. He published his findings in the book *The Compass of Pleasure: How Our Brains Make Fatty Foods, Orgasm, Exercise, Marijuana, Generosity, Vodka, Learning, and Gambling Feel So Good*.

According to Linden, everyone’s brain has a “pleasure circuit” that is active during pleasurable activity. The pleasure circuit is activated both by vices, such as gambling, and virtuous activities, such as exercise.

For most people, the end result is pleasure. But in those who have variants in their genes that alter how signals are sent to the pleasure circuit, something else happens.

“In the development of addiction, people move from a state in which they take pleasure from the substance or behavior and move into a place where they aren’t taking much pleasure at all,” Linden explains. “They just do it to avoid withdrawal or feeling bad.”

This area of study, which is ongoing, can help doctors better understand and treat addiction.
**PROBIOTICS: Pros and Cons**

**THERE IS A LOT OF TALK** about how probiotics can help you achieve optimal digestive health. But which claims are true?

Evidence suggests probiotics offer certain health benefits, says Linda A. Lee, M.D., a Johns Hopkins gastroenterologist, but there is no proof yet that they’re a cure-all.

“Probiotics may help some people who have diarrhea when they take antibiotics, or women with bloating from irritable bowel syndrome,” she explains. “They may also be helpful when used along with medical therapy in the treatment of ulcerative colitis.”

Probiotics exist in many different strains, and Lee recommends you ask your doctor or pharmacist about ones that have proved effective in clinical trials. As for yogurt, she says, be aware that not every brand contains the beneficial microorganisms.

Unless your doctor says probiotics may help with a specific issue, Lee says a healthy diet is the best way to achieve optimal digestive health.

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**NEW BUILDINGS EXPAND OUR LEGACY**

When the new 1.6-million-square-foot buildings open at The Johns Hopkins Hospital in April 2012, they will offer hotel-style amenities for patients, families and visitors to enhance every aspect of their experience. Designed with the patient in mind, the Sheikh Zayed Tower and The Charlotte R. Bloomberg Children’s Center will feature:

- All private patient rooms, private bathrooms, walk-in showers, and sleep sofas for families.
- A wide range of dining options, including a food court, gourmet market, and other restaurants and shops for different tastes.
- A two-story indoor play area, including a basketball court, for pediatric patients.
- A dramatic art collection featuring national and international artists.
- Artistically landscaped gardens for meditation and reflection.
- Valet parking and a close, convenient parking garage.

To take a virtual tour of the new building or to learn more, visit explorehopkinshospital.org.

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**USE YOUR HEAD ABOUT CONCUSSION RECOVERY**

If your child has had a concussion while playing sports, he or she needs adequate time to recover before returning to the game. How much time, says George Jallo, M.D., a Johns Hopkins pediatric neurosurgeon, depends on the severity of the concussion and whether your child has symptoms, including neck pain, nausea, dizziness, balance problems and sensitivity to light.

“Anyone who has had a concussion should wait at least one week after symptoms have cleared before returning to sports,” he says. “If your child has symptoms like a headache or trouble concentrating, it’s too soon to even return to school.”

Jallo recommends asking your child’s physician for the all-clear to return to school and sports.

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**WOMEN’S HEALTH CONFERENCE**

Join Linda Lee, M.D., and other Johns Hopkins experts at A Woman’s Journey, Johns Hopkins Medicine’s annual women’s health conference, on Nov. 12. For more information, call 410-955-8660 or visit hopkinsmedicine.org/awomansjourney.

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**SAVE THE DATE**

hopkinsmedicine.org/usa | 877-546-1872
Making a Strong Case for Cardiac Rehab

After a heart attack or heart surgery, your hardest working muscle needs to get back in shape.

Stuart Russell, M.D., director of heart failure and transplant at Johns Hopkins, explains why cardiac patients should take advantage of rehabilitative care.

Q: What is cardiac rehabilitation?

Cardiac rehab is a combination of exercise training, muscle/strength training, plus teaching people how to lead heart-healthy lives. It includes dietary education as well as work on either a bike or a treadmill, and weightlifting. Each session is about 30 minutes to an hour. Cardiac rehab saves lives, keeps you out of the hospital and helps you feel better.

Q: Can you tell me more about the benefits?

There is improvement in survival and reduction in heart attacks after rehab. In a study of 21,000-plus patients nationwide, cardiac rehab led to a 17 percent reduction in heart attacks after one year and a 47 percent reduction after two years. Older patients who went to rehab experienced an 88 percent reduction in hospital readmissions versus a 70 percent reduction in readmissions for those who didn’t do cardiac rehab. It improves exercise capacity and leads to a decreased incidence of depression.

Q: How do I sign up?

Ask your doctor for a prescription. At Johns Hopkins, we use monitors that allow us to continuously measure your heart’s electrical activity while you’re exercising. We also test your aerobic capacity, so we can prescribe the right amount of exercise to help you reach fitness goals. Also, if you come to Johns Hopkins, you have the opportunity to participate in research trials that help us improve care. But whether you come to us or go elsewhere, you need to go.

To learn more about cardiac rehab, visit hopkinsmedicine.org/heart/cardiac_rehab. For more information or to make an appointment, call 877-546-1872.
Although it’s perfectly normal for children to worry sometimes, it’s not always harmless. One in 10 children ages 5 to 16 suffers from an anxiety disorder, compared with one in 20 children who has the more widely known attention deficit/hyperactivity disorder (ADHD).

General anxiety disorder (GAD) is a diagnosable illness in children. “These are the kids who are the worriers,” says Golda Ginsburg, Ph.D., a professor and child psychologist at Johns Hopkins. “They worry about safety, making friends, school performance. It’s chronic, severe and difficult to control.” Ginsburg says these children seek a lot of reassurance, but reassurance doesn’t reduce the anxiety.

Untreated anxiety can cause developmental problems in children because it often interferes with sleep, prevents them from going places, and affects their interaction with others.

GAD is far more common in children than panic disorder, which occurs when a child has panic symptoms such as a racing heartbeat, difficulty breathing and a feeling of loss of control. And experts know GAD can run in families. “All anxiety disorders have a biological and environmental component,” Ginsburg says.

That’s one reason Johns Hopkins researchers are focusing on stopping anxiety before it starts by studying the children of parents who have been diagnosed with the disorder. Prevention is key, Ginsburg says.

“If it’s at the disorder level,” she adds, “then treatment is needed.”

To treat children suffering from anxiety, doctors generally will use cognitive behavioral therapy or medication, or both. A 2008 study by Johns Hopkins researchers showed that combination therapy was most effective, with 80 percent of combination-treated children showing improvement; in a more recent study, however, symptoms improved but in many cases the illness didn’t go away entirely.

If you are struggling with anxiety and are concerned that your child could suffer from it, too, Johns Hopkins is seeking participants for a clinical trial on prevention strategies for childhood anxiety. Call 443-287-4349 or email caps@jhmi.edu for more details.

How Do I Know If My Child Has Anxiety?

Pay attention to three clues that your child may have higher-than-normal levels of anxiety or worry:

1. Severity. How out of proportion is the worry to the problem?

2. Frequency. How often does your child worry? Is it every day and repeatedly without diminishing?

3. Interference and avoidance. Is worrying impairing your child’s life in a significant way, causing significant distress and keeping him or her from enjoying activities or going places?
A YEAR AGO, a newly minted physician in his residency at Johns Hopkins found himself at the bedside of an older patient whose chart included a long list of problems. In addition to heart disease, diabetes and several other serious illnesses, the patient was depressed and hadn’t walked in six months because of weakness and arthritis.

The resident confessed to the attending physician that, given the patient’s advanced age, it seemed like a hopeless case, and that it made little sense to consider adding to the many treatments the patient had already received. In most hospitals, the attending physician might well have agreed. But this physician was Danelle Cayea, M.D., director of education for Johns Hopkins’ Division of Geriatric Medicine and Gerontology, and a strong believer that even older patients who have a range of thorny conditions can sometimes be helped in a big way by the right medical care.

Cayea prompted the intern to look into treating the patient’s depression, add in an intensive regimen of physical therapy, and consider how the patient’s many medications could be streamlined and adjusted.

The intern eventually was rewarded by seeing the patient walking around, feeling better and smiling again. “That young physician learned that a patient’s problems shouldn’t simply be chalked up to old age and left untreated,” Cayea says. “There’s a lot we can do for many of them.”

Unique Challenges
Opening other doctors’ eyes to the possibilities of helping older adults regain and keep their health is just one part of the far-reaching mission of the Division of Geriatric Medicine and Gerontology, under the leadership of Johns Hopkins physician and researcher Samuel Durso, M.D. If the geriatrics division’s goals are ambitious, Durso says, it’s because the challenges are epic.

Aging patients, he notes, often face what seems like a grab bag of extraordinary challenges, including suffering from multiple major diseases and both physical and cognitive impairment. What’s more, he adds, treating them involves coordinating care among multiple practitioners, institutions and family members, trying to
sort out the dozen or more potentially interacting drugs that these patients take, and overcoming resistance from patients themselves that symptoms are “part of aging.”

The sheer numbers of older patients who have these sticky problems suggest that the health care system badly needs to place more focus on geriatrics. “Older adults already make up the largest population of chronically ill people and a large proportion of those who are hospitalized,” Durso says, “and those numbers are growing.”

Addressing the Cascade into Frailty
Geriatrics is a field that was in many ways born at Johns Hopkins, and with a full-time faculty of more than 30 people, the geriatrics division is now working to extend the field’s impact and benefits on several fronts. One of these fronts is conducting lab research to identify medical conditions that may be unique to older adults, finding the root causes of these conditions, and coming up with ways to translate these insights into new drugs, better care pathways and other interventions.

Front and center among the research initiatives is a drive to figure out what’s behind the general decline in strength and resiliency that affects older adults over time, a decline often marked by weight loss, trouble walking, weakness and susceptibility to infection and other disorders. It’s a syndrome called frailty, and it remains a sharp mystery why it affects some older people much earlier than others.

“If you look at a group of 80-year-olds, it’s difficult to explain why some still have energy to exercise and baby-sit and go to the store, while others can’t get up off the couch,” Cayea says. “Disease and lifestyle play a role, but it looks as if there may be a specific biological mechanism, and that gives us hope that we can develop ways to head off that decline.”

What Can Be Done Right Now
Although this sort of research is likely to pay off down the road, Johns Hopkins is equally determined to affect the way care is delivered to older adults today. For starters, the faculty is working to help doctors do a better job of treating the older patients they see in the hospital. The biggest single challenge, says Michele Bellantoni, M.D., clinical director of the Division of Geriatric Medicine and Gerontology, is trying to cope with the multiple chronic diseases that afflict many of these patients.

“Managing one of the conditions often impacts another,” Bellantoni says. “That means we need to fine-tune the treatments to prevent making any of the conditions worse.”

She notes, for example, that after she recently placed one diabetes patient on a healthier diet, she also had to reduce the dosage of the woman’s blood-sugar-lowering medication lest the diet leave her with too little blood sugar. Then the patient began having tremors suggesting early Parkinson’s disease, leading to a medication to slow its progress. But that medication affected the patient’s blood pressure, requiring a dosage adjustment to the medication she was taking for that problem.

And so it goes for many such patients. Even a routine follow-up exam after hospitalization needs to be a lot less routine when older adults are involved, Bellantoni notes. She has her exams start in the waiting room, where she says patients may
HOSPITAL CARE at HOME

Great medical care doesn’t have to be limited to hospitals or doctors’ offices. The Johns Hopkins Division of Geriatric Medicine and Gerontology is looking at several new models of care that meet older patients’ needs with minimum disruption to their environments and lifestyles. Some of the projects involve alternatives to nursing homes, including bringing health care practitioners to patients’ homes for exams, and transporting people several times a week from their homes to elder-care centers that provide social activities and access to health services.

But the most ambitious program seeks to provide patients who require the sort of acute care normally provided in a hospital a chance to receive that care right in their homes. Even serious illnesses such as congestive heart failure and pneumonia are being treated at home, with the care sometimes including sophisticated monitors, intravenous drips and blood tests. Nurses typically come by the patient’s home two times a day, and every few days a doctor stops in—a significant expense, to be sure, but a fraction of the cost of hospital care.

“This is one of the most novel and potentially important innovations in health care delivery,” says Samuel Durso, M.D., director of the geriatrics division. “We’re actually seeing patients come out with better results by skipping the hospital.”

Highly Individualized Care

Part of the trick is to be ready to go beyond the standard rule book when it comes to treating specific disorders, Durso says.

“Having multiple chronic conditions means that no single problem is treated the way you’d treat it for someone who just has that one condition,” he explains. “Every older person’s care has to become highly individualized, based on good judgment and experience.” He adds that taking patients off some of the many drugs they’re on can provide more benefit than adding a new drug, because of side effects and drug interactions.

Cayea notes that doctors frequently have to work harder to explain treatments in the right terms to older patients, or else they may not adhere to them. “They may not care that it lowers their blood pressure,” she says, “but they may care that it will make them feel well enough to make it to church on Sunday or to climb the steps to their home.”

Johns Hopkins is also forging new alliances to raise the quality of care of older adults. It has linked up with psychiatrists and neurologists to create a geropsychiatric specialty for evaluating memory disorders, which often coexist with emotional and neurological disorders in older patients. And a new geriatric orthopedic service helps patients who have hip fractures get into surgery as quickly as possible, which helps reduce medical complications.

A Passion for Preventing Problems

Meanwhile, geriatricians’ strong emphasis on prevention seeks to make changes in patients’ lives before they get to the point where they need aggressive treatment. Eating healthier foods and exercising at any age makes people less likely to succumb to a cascade of problems as they age, Durso notes. For example, patients who don’t walk around much lose leg strength, putting them at greater risk of falls and hip fractures, which further reduces their mobility.

One Johns Hopkins program put a group of older people in elementary school classrooms 15 hours a week to help tutor children. “Preliminary evidence has shown improvement across a range of functions for these people,” Durso says. “And the kids are doing better in school, too.”

Bellantoni notes that Johns Hopkins’ passion for improving older patients’ health doesn’t mean there is no room to acknowledge the inevitability of death. In fact, the faculty takes a strong interest in helping those who have come to the natural end of their lives to do so with dignity and comfort.

“After we’ve done all we can to physically rehabilitate patients and help them live a good life,” she says, “we try to establish the sort of rapport with them and their families that allows us to help them prepare for a good death.” But foremost on the faculty’s minds, she adds, is embodying the hope that medical care can provide to patients whose problems so often prove to be treatable.

“We’re passionate about the care we provide,” Bellantoni says, “and we want to share that passion so that people don’t equate geriatrics with pessimism.”
A Leg Up on Vein Disorders

Sue Hu finally finds relief for a wound that wouldn’t heal

I didn’t know exactly what was wrong. But I’d developed a deep, painful wound on my right foot. It made getting around difficult, and the discomfort even kept me awake at night.

I was diagnosed with a venous ulcer. A dermatologist sent me to a vein clinic, where they performed minor surgery. But the procedures performed were incomplete, so I developed another ulcer.

That’s when my dermatologist said, “You need a higher level of care. I think you should go to Johns Hopkins.” Those were her exact words.

So I went to the Johns Hopkins Vein Center. That’s where all the pieces of the puzzle came together and I learned the extent of my venous insufficiency. I met Jennifer Heller, M.D., who reviewed the treatment options with me and answered all my questions. It was really important to me to have a specialist I could have a dialogue with. We talked about what was best for me, and we went forward with it.

For three months, I wore a bandage from my knee to my toes, which was changed every week at the vein center. I also wore a special boot that helped me heal and provided support. About halfway through my treatment, they performed minor surgery to repair the vein that had been causing the problem.

Later, they told me I’d need to wear support stockings most of the time from now on. That’s something no one had said before I came to Johns Hopkins. I’m an advocate for my own health, and this is the kind of information I want. It’s about improving quality of life.

I would not want to have to go through this again, so I’m glad to have the good news that my ulcer is healed.
It’s understandable that people don’t like to talk about their fecal incontinence. But they should say something: Dialogue with a physician opens the possibilities to treatment, including one recently approved by the U.S. Food and Drug Administration (FDA).

Fecal incontinence occurs when a faulty rectum or sphincter muscle causes loss of bowel control. One standard therapy, a surgical procedure to tighten the sphincter, isn’t ideal, considering the fairly high rates of infection and discomfort, says Susan Gearhart, M.D., a colorectal surgeon at Johns Hopkins. Collagen injections are also used, but they’re not a permanent solution.

The newly FDA-approved treatment for fecal incontinence, called sacral nerve stimulation, has been used for about 10 years to help people with urinary incontinence. A device about the size of a silver dollar is implanted in the upper buttocks and delivers tiny electrical pulses that stimulate the nerves related to the rectal and sphincter muscles.

Johns Hopkins is one of very few institutions nationwide currently offering this therapy. Especially for patients who have tried other treatments unsuccessfully, it’s an option well worth exploring. Johns Hopkins employs a team of urogynecologists, urologists, colorectal surgeons and gastroenterologists.

“If you decide to undergo this type of therapy, you need a team like we have with experience in this apparatus,” Gearhart says. “It’s important for people with fecal incontinence to come forward. It’s nothing to be ashamed of, and we have better options than ever to help.”

For more information, appointments or consultations, call 877-546-1872.

CAUSE AND EFFECT

- Nearly 18 million adults in the U.S. experience fecal incontinence.
- Fecal incontinence is more common in older adults and slightly more common in women.
- Primary causes include nerve damage from strenuous defecation and injuries to the sphincter muscle during childbirth.
- There are two kinds of fecal incontinence: Urgo incontinence is the sudden need to have a bowel movement. Passive incontinence is loss of bowel control.
- Treatment options depend on the type of fecal incontinence. An ultrasound of the inside of the anus is one method used to evaluate a patient’s fecal control.
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