Winter 2016
Heart Stopping: Cardiologists battle the causes of sudden cardiac death
Vacation Travel Tips
Healthy Winter Ragout and more...

The Forgetting Years
Understanding age-related memory loss
Not all age-related memory loss is the same, and some dementias can be treated with medication. Neurologists and gerontologists at Tufts MC can provide treatment and support for patients and families.

Tufts MC cardiologists battle the causes of sudden cardiac death by providing advanced care and prevention, teamed with public health efforts.

Tests for fetal abnormalities turn up unexpected results in some expectant moms.

Two surgeons found love in New Hampshire, but couldn’t share a life until their passion for patients brought them to Tufts Medical Center.

A five-star award; 30 years of heart transplants.

Meet new Tufts MC specialists ready to work with referring physicians and patients.
Diana Bianchi, MD, Executive Director, Mother Infant Research Institute, has been at the forefront of research that has revolved around noninvasive prenatal screening, creating new tests that are far more accurate and that eliminate the need for many pregnant women to undergo invasive tests such as amniocentesis to determine if their fetuses have a chromosomal abnormality.

However, an unexpected finding has appeared as more women take the tests: in rare instances, the tests have shown signs of DNA imbalance in multiple chromosomes that have been caused by undiagnosed cancers in the mother, while the fetuses were perfectly healthy. Dr. Bianchi published her findings in the Journal of the American Medical Association. It is thought that approximately one in 1,000 pregnant women have cancer.

“The take-home message is that women should be aware of this possibility when they seek testing and receive abnormal prenatal DNA screening results. More research needs to be done to further study this occurrence to help guide physicians on how to counsel women and manage their follow-up care,” Dr. Bianchi says.

Innovation

Atkins, Paleo, South Beach... Has there been a diet invented yet that can withstand a week’s vacation? No matter your eating regimen, it’s likely to be put to the test by your next holiday. Most of us eat and drink more than usual while vacationing, and all that rule bending can make it difficult to get back with the program once we return home. So how can you enjoy your next getaway without permanently sabotaging your diet? It all starts with planning, say Jillian Regan and Melissa Page, senior dieticians at the Weight and Wellness Center at Tufts Medical Center.

Take Stock

▶ Before leaving, stock the kitchen with healthy food options for your first night home. “That way, you can avoid the ‘I’ll order out again tonight’ syndrome,” says Regan. “One day can snowball into the next. Leave vacation with vacation.”

▶ When booking accommodations, choose a room with a mini-fridge and microwave, then buy healthy breakfast and snack options from a local supermarket.

▶ On travel day, pack your own healthful snacks and say “no” to the empty-calorie offerings at the airport and on the plane. “Bring things that provide both protein and fiber so you’ll feel full,” says Page. “Nuts, string cheese, dried fruit, and high-fiber cereals are all great choices.”

▶ When eating at restaurants with large portion sizes, consider skipping an entrée and instead ordering an appetizer, such as a hummus plate or grilled chicken kabob, paired with a salad.

▶ If you do go for an entrée, consider eating just half of it. “In many cases, that’s still plenty of food,” says Regan. “We know that portion sizes have gotten out of control.”

▶ “It’s OK to splurge a little,” Page says, “but try to limit yourself to one treat a day.”

To contact the Tufts MC Weight and Wellness Center, call 866-393-4760.

White Bean Ragout with Greens and Mushrooms

Serves 4

Ingredients
- 2 cups vegetable broth (low sodium)
- 1 white onion, medium, chopped
- 1 tsp rosemary, dried
- 1 tsp thyme, dried
- 1/4 cup white wine (i.e., sauvignon blanc)
- 12 oz mushrooms (button, wild, or a mix)
- 1 15 oz can great northern beans (low sodium), drained and rinsed
- 2 tsp cornstarch
- 1 tsp nutritional yeast*
- 4 cloves garlic, finely chopped
- 1 lb kale or collard greens, chopped
- Kosher salt and cracked black pepper to taste
- Crusty bread*

*Optional

Instructions
1. Place a large sauté pan over medium heat, add chopped onions and cook until translucent, about 5 minutes.
2. Add 1 cup vegetable broth and cook for another 3–5 minutes. Stir in rosemary, thyme and wine, cooking until liquid is reduced to half. Add a pinch of salt.
3. Turn the heat down to low. Add the mushrooms, stir and cook 5 minutes or until mushrooms release their liquid and begin to be tender. Add the beans and stir.
4. In a small bowl, combine the remaining vegetable broth, cornstarch and nutritional yeast. Pour into the simmering mushrooms and beans, stirring constantly for 30 seconds.
5. Cook 1–2 minutes, allowing mixture to thicken and create a base for the ragout.
6. Add the garlic and greens, cooking until wilted. Season to taste with salt and pepper.
7. Portion into soup bowls and serve with warm crusty bread.

Nutritional Info
(per serving)
- 259 calories
- 2g fat (all from heart-healthy unsaturated fat)
- 15g fiber
- 17g protein
- 348mg sodium
Rich in vitamins A and C; also contains 25% RDA of calcium and iron.

Winter is stew time, but too many rich meat-based stews aren’t good for your weight or your heart health. This hearty vegetarian ragout is rich in vitamins A and C, and it contains a quarter of your recommended daily intake of calcium and iron. You can make it ahead of time and reheat, or cool it to room temperature and freeze. More recipes from your Kitchen Confidant can be found at lisaecaldwell.com.
It accounts for half of all heart disease fatalities, and it is the single largest cause of natural death in the country, yet many of us know little about sudden cardiac death. Commonly referred to as SCD, sudden cardiac death occurs when the electrical system in a person’s heart goes haywire. Seemingly out of the blue, the heart begins to beat rapidly and irregularly, making it unable to pump blood to the rest of the body: cardiac arrest. Within moments the person collapses.

HEART STOPPING:

Cardiologists battle the causes of sudden cardiac death

The person dies because not enough oxygen is getting to the brain and other organs," explains Martin Maron, MD, Director of the Hypertrophic Cardiomyopathy Center at Tufts Medical Center. It’s estimated that SCD results in more than 350,000 deaths per year, or nearly 900 each day in the U.S.

Part of the reason for those high numbers is that less than 8 percent of people survive when they experience cardiac arrest outside the hospital. But it doesn’t have to be that way. "A bystander who knows how to quickly deliver simple and effective CPR can make it two to three times more likely that someone survives," says cardiologist Mark Link, MD, Professor of Medicine at Tufts Medical Center. Dr. Link has helped lead an American Heart Association initiative to get more people trained in CPR, a drive that also resulted in updated CPR guidelines (see page 6). "One of the most important changes is a recommendation of ‘hands-only’ CPR," Dr. Link says. "Not that mouth-to-mouth is bad, but it’s easier and less complex to do hands-only.”

What causes the cardiac arrest that can lead to sudden cardiac death? There are a number of heart diseases and conditions that can make someone susceptible to cardiac arrest. "Coronary disease related to bad diet, lack of exercise, smoking, and so on remains the number one cause of death," Dr. Maron says. So healthy eating and exercise habits can go a long way toward reducing the chances of cardiac arrest, but some risk factors are congenital. Long QT syndrome and Brugada syndrome, for instance, are disorders of the heart’s electrical system that can cause abnormal heart rhythms. And Marfan syndrome predisposes some people to cardiac arrest by causing parts of the heart to stretch and become weak. And then there’s Dr. Maron’s specialty, hypertrophic cardiomyopathy. HCM is a genetic disease in which the heart muscle is thicker than it should be, which can make it difficult to pump blood, especially during exercise.

"HCM tends to develop in puberty," Dr. Maron says. "It affects approximately one out of every 500 people in the general population, and it’s the most common cause of sudden death in young people in the U.S." HCM is also the leading cause of death among athletes. Still, many people live their whole lives with the disorder and never know it. For some, though, the condition results in symptoms such as chest pain, shortness of breath, heart palpitations, and passing out or collapsing. Dr. Maron says that only a small number of patients with HCM will ever experience actual symptoms. “Which patients?” he asks. “That’s what we try to do every day—determine which patients with HCM are actually at risk of sudden death and heart failure.”

To help figure that out, Tufts Medical Center provides referring cardiologists with a number of important tools. Tufts MC specialists can perform a cardiac MRI to provide better heart imaging than is often possible with echocardiograms available to many general cardiologists, and they can conduct genetic testing that is not available everywhere. Finally, Tufts MC is a leader in providing patients with implantable cardioverter defibrillators, or ICDs.

An ICD is a small device that is implanted under the skin and then monitors a patient’s heart. When the ICD detects that the heart is beating abnormally, it sends an electric shock to get things back on track and keep the blood flowing. “The ICD is one of the most impactful developments in medicine over the past 50 years,” Dr. Maron says.
Tufts Medical Center is also a national resource for another cause of sudden cardiac death which is unrelated to genetics or lifestyle issues. Commotio cordis is the term for cardiac arrest that results from a young athlete being struck in a precise area of the chest, with a precise amount of force, at a precise moment of the cardiac cycle. It often involves a baseball player getting hit with a baseball, but lacrosse, hockey, softball and karate are other sports in which children have died after sustaining a blow to the chest. As many as 20 incidents are reported each year in the country, but it is widely believed that many occurrences go unreported.

Dr. Link, whose research has contributed much of what is known about commotio cordis, says that CPR can be effective when a child becomes unresponsive after sustaining a blow to the chest. “But a significant problem, historically, has been that coaches, parents and bystanders have not understood the severity of the problem,” he says. “Blows that can turn out to be life-threatening don’t always look serious when they occur.” That has begun to change, however. Dr. Link says that officials involved in youth athletics are much more aware of the problem today. “We’re now seeing a commotio cordis survival rate of up to 60 percent,” he says. “That’s because of improved recognition and improved resuscitation.”

Still, Dr. Link says more can be done. His research has found that the hardness of a ball has a significant effect on how likely it is to trigger cardiac arrest. In laboratory testing, Dr. Link has found that the softest balls can trigger cardiac arrest 11 percent of the time, compared with about 20 percent of the time for balls of intermediate hardness, and 69 percent of the time for standard baseballs. Given these results, Dr. Link says, a switch to softer “safety” baseballs in youth leagues could reduce the risk of sudden death on the playing field. And there’s another equipment change he advocates. “The available chest protectors don’t actually do that much,” he says, pointing out that nearly 20 percent of commotio cordis victims—from baseball and hockey to lacrosse and football—were wearing chest-protection equipment at the time. “The problems with the chest protectors available now are related to materials and hardness,” Dr. Link says. “We’re doing work here at Tufts using some novel materials to try and make a better chest protector.”

Whatever the underlying causes of sudden cardiac death—problems with diet and exercise; genetics; problems with the chest protectors available now—are related to materials and hardness, Dr. Link says. “We’re doing work here at Tufts using some novel materials to try and make a better chest protector.”

To contact The CardioVascular Center, call 866-430-1660.
Not long ago, Richard Dupee, MD began working with the family of an elderly man who’d been diagnosed with Alzheimer’s. Though profound in its effects, Alzheimer’s is a disease with a long windup—its symptoms can be quite mild at first, and it’s not uncommon for patients to survive for 15 to 20 years after the diagnosis. So the family was shocked when the man’s condition began to deteriorate rapidly. “They couldn’t understand why he was getting worse so quickly,” says Dr. Dupee, Chief of Geriatrics Service at Tufts Medical Center. “Then they got the devastating news that their father didn’t have Alzheimer’s at all.”

“Everybody associates dementia with a memory decline, but it’s not always just memory.”

—Tinatin Chabrashvili, MD

Additional testing revealed that the patient was actually suffering from a disorder called Lewy body, which is characterized by a stooped posture and slow thinking and responding, and which typically results in death much more quickly than Alzheimer’s.

The patient’s family was encountering a difficult and often bewildering reality about memory-based disorders: they can be complex to diagnose, challenging to manage, and fickle, like memories themselves.

It’s easy to mistake Lewy body for Alzheimer’s, for instance, because both diseases fall under the broad category of dementias. There are other types of dementias, too, and many patients suffer from a “mixed pathology,” meaning they have more than one cause of dementia at the same time. And if all of that weren’t complicated enough, there are even patients who display dementia-like symptoms that aren’t related to dementia at all. “Dementia is a very broad umbrella,” Dr. Dupee explains, “with a number of different categories.”

The treating physician’s job is to figure out precisely which of those categories apply to a specific patient in order to provide the best care. Dementia can be caused by a neurodegenerative disease for which there is no cure, but prescription drugs can prolong self-sufficiency. “These drugs may not do much for cognition,” Dr. Dupee says, “but they do help maintain function—the ability to stay home, to do some of the self-care; these medications can maintain that functioning for a significant amount of time.”

That’s important because dementia can take an enormous emotional toll on a patient’s family. “Everybody associates dementia with a memory decline, but it’s not always just memory,” says Tinatin Chabrashvili, MD, a neurologist who is a neurologist who is

Alzheimer’s patients aren’t the only ones who suffer with the disease. “It’s devastating for the family, especially for the spouse, who becomes the primary caregiver,” says neurologist Tinatin Chabrashvili, MD. Richard Dupee, MD says it’s critical that family members seek support services when caring for a loved one who has Alzheimer’s. “There is extreme caregiver burnout,” Dr. Dupee says. “About 50 percent of working caregivers lose their jobs over it.” Dr. Dupee encourages caregivers to contact the Alzheimer’s Association of Massachusetts/New Hampshire at alz.org/manh for helpful resources.
the director of the Dementia Clinic at Tufts Medical Center. Dementia patients are prone to seemingly random behavioral issues, emotional outbursts, and fits of anger and agitation. “It’s a problem the whole family is facing,” Dr. Chabrashvili says. “Spouses, children, and even grandchildren. Especially early on, before a definitive diagnosis has been made, they may not understand the sudden change in personality.”

The Dementia Clinic helps families and referring physicians diagnose dementias, including the specific ones that a patient may be suffering from. “If there’s a significant change that cannot be explained by so-called normal aging, it may be appropriate to refer,” Dr. Chabrashvili says. She explains that a person’s cognition—or thinking and reasoning ability—tends to continue to improve up to age 45 or 50, and then to remain stable up to age 65 or 70. A drop in cognition prior to that age range could indicate dementia.

Then again, a slip in memory or cognition can be perfectly normal for people in their older years. Thomas Laudate, PhD, a clinical neuropsychologist at Tufts Medical Center, says that when it comes to holding onto information and manipulating it in the short term, most of us will show a decline in later years. “So don’t panic!” Dr. Laudate says. “There is a lot of stuff that we encounter that is normal—we’re not computers.”

But what is something to worry about? Dr. Laudate says someone who has a pattern of asking the same question over and over, without realizing it, could be suffering from dementia, as could someone who, say, puts her shoes in the refrigerator, gets lost in a familiar area, or frequently bumps into doorways. Even someone who displays these symptoms may not have dementia.

Dr. Laudate says everything from a low vitamin B-12 level to thyroid problems to depression can be the actual underlying issue. Figuring out what’s going on with a patient, then, can be like solving a puzzle. “You have people with multiple concerns, and any one of them could be causing the problem,” Dr. Laudate says. “It’s very hard for a primary care doctor to determine all of these factors in a 15- to 20-minute appointment— that’s why we’re here.”

After a patient is referred to him, Dr. Laudate does a series of tests to check memory, motor skills and executive functioning, which includes problem solving, attention, focus and language. “I work to disambiguate all of the symptoms, and consider it all from the psychology side of things and the medical side of things.”

Sometimes the patient isn’t suffering from dementia at all. Other times, the testing can lead to an emotionally painful diagnosis. Dr. Dupee recalls the family who’d believed that their father had Alzheimer’s, only to learn that it was actually Lewy body dementia, which typically leads to death twice as quickly as Alzheimer’s. “It was devastating for them to learn that he actually had Lewy body dementia,” Dr. Dupee says. “But what’s important is that now they understand why his condition worsened so quickly, and [they] can plan based upon accurate information.”

To contact Dr. Dupee call 866-535-7743. To contact Drs. Chabrashvili and Laudate call 866-549-9065.

They met at Dartmouth Hitchcock Medical Center, where Dr. Chen was a medical student and Dr. Chatterjee, who goes by Sunny, was in the General Surgery/Plastic Surgery residency program. When Chen graduated and began a residency at Lahey Clinic in Burlington, Mass., Chatterjee would drive down for weekend visits. Even after they were married in 2013, they lived apart while Chatterjee completed a Breast Surgical Oncology Fellowship at the University of Pennsylvania. When they finally both joined Tufts MC, Chen as a colorectal surgeon and Chatterjee as a plastic and reconstructive surgeon and breast surgical oncologist, they did so in true bookshop fashion, starting on the same day.

Dr. Chabrashvili does a series of tests to check memory, motor skills and executive functioning, which includes problem solving, attention, focus and language. "I work to disambiguate all of the symptoms, and consider it all from the psychology side of things and the medical side of things." Sometimes the patient isn’t suffering from dementia at all. Other times, the testing can lead to an emotionally painful diagnosis. Dr. Dupee recalls the family who’ believed that their father had Alzheimer’s, only to learn that it was actually Lewy body dementia, which typically leads to death twice as quickly as Alzheimer’s. “It was devastating for them to learn that he actually had Lewy body dementia,” Dr. Dupee says. “But what’s important is that now they understand why his condition worsened so quickly, and [they] can plan based upon accurate information.”

To contact Dr. Dupee call 866-535-7743. To contact Drs. Chabrashvili and Laudate call 866-549-9065.

Abhishek Chatterjee, MD
While training to be a plastic surgeon, I had an opportunity to work with breast cancer patients. I realized these patients could benefit from having one surgeon who could perform their reconstructive and cancer surgeries. Subsequently, I decided to specialize in both to simplify the breast cancer treatment journey for my patients.

For example, having a single surgeon makes it simpler to schedule pre-surgical consultations, subsequent surgery and follow-up treatments. I value being part of the breast cancer treatment process from the beginning and continuing through the many years of follow-up that the patient needs after her surgery.

On another note, my parents are primary care physicians and have taught me to recognize the importance of including the referring physician as part of the treatment team. Good communication and keeping the primary care physician informed about their patient’s treatment is essential.

Lilian Chen, MD
When I tell people I am a colorectal surgeon, the first question they ask is, ‘Why on earth did you pick this field?’ I usually laugh at the question. It’s a great field and I love my job. I’m glad that patients have enough confidence in me to share the most intimate details of their medical health. Many patients are embarrassed when they come to see me, but it is important to talk about these topics.

I see patients with anorectal problems including abscesses, fissures, and hemorrhoids as well as patients with colorectal issues including diverticulitis, inflammatory bowel disease and colon cancer. I offer minimally invasive treatments for colorectal problems including laparoscopic and robotic surgery. My department works closely with our gastroenterology and urogynecology departments to help treat pelvic floor disorders including fecal incontinence. I’ve been fortunate to learn and practice at world-class institutions.

Growing up in New York’s Chinatown made me aware of the language and cultural differences within the Chinese community. I’m fluent in Mandarin and Cantonese, and I hope to use these skills to help our Chinese patients, including raising awareness and screening options for colorectal cancer. I am hoping that I can make a difference here.”

To contact Dr. Chen, call 866-566-0537. To contact Dr. Chatterjee, call 866-785-9122.
Tufts MC’s quality, safety win national recognition

Tufts Medical Center has received the prestigious Bernard A. Birnbaum, MD, Quality Leadership Award from the University HealthSystem Consortium (UHC). The award is given to top-performing academic medical centers in UHC’s rigorous annual review of quality, efficiency and patient-safety data.

The award is based on an in-depth study of an academic medical center’s performance, including mortality, effectiveness, safety, equity, patient-centeredness and efficiency. One hundred and two academic medical centers across the nation participated in UHC’s 2015 study, and only 13 received the five-star ranking and Quality Leadership Award. Tufts Medical Center was the only hospital in New England to receive the award.

“This award is incredibly meaningful for our clinicians, patients and referring physicians, because it tells us that our quality ranks among the best of our peer academic medical center institutions,” says Michael Wagner, MD, President and CEO of Tufts Medical Center.

UHC’s annual Quality and Accountability Study is designed to help academic medical centers adapt their processes to ensure high performance in quality and safety in all the ways they care for patients. UHC member hospitals and health systems submit their data in an effort to benchmark their quality efforts and learn from each other.

Tufts MC’s heart transplant program: 30 years of excellence

Tufts Medical Center celebrated a significant milestone in 2015: 30 years of providing heart transplants. Since 1985, more than 370 cardiac transplantations have taken place at Tufts MC. Our program and our faculty are nationally and internationally renowned in the field. We are known for developing state-of-the-art therapies for heart failure and providing high-quality, personalized care with outstanding outcomes. Our multidisciplinary team has been deeply involved in creating national standards for patient care during heart failure treatment. Especially heartwarming for us was having so many patients, even from the early days of our program, present for our celebration event in October.

Some of our many notable milestones include:

- **2003** We opened New England’s first advanced heart failure intermediate care facility, an innovative 54-bed unit located inside Tufts Medical Center.
- **2009** We were the first center in New England to implant the HeartWare Left Ventricular Assist Device (LVAD) as a bridge to transplantation.
- **2014** Our program implanted 56 durable LVADs, making us the highest-volume LVAD center in the region.
- **2015** Over a five-year period (2010–2014) Tufts MC performed 94 heart transplants, the most in the region.

New Physicians at Tufts Medical Center

**CANCER**
Anita Kumar, MD  
Medical Oncologist  
Clinical Specialties: Acute leukemia, myelodysplastic syndromes, myeloproliferative disorders  
Board Certifications: Internal Medicine, Medical Oncology  
Phone: 617-636-6227

**DERMATOLOGY**
Catherine DiGiorgio, MD  
Dermatologist  
Clinical Specialties: Medical and cosmetic dermatology  
Board Certifications: Dermatology  
Phone: 617-636-0156

**GASTROENTEROLOGY**
Mark J. Sterling, MD  
Advanced Endoscopist  
Clinical Specialties: Endoscopic retrograde cholangiopancreatography (ERCP) and endoscopic ultrasound (EUS), pancreatobiliary endoscopy including EUS-guided biopsy, direct cholangioscopy and laser lithotripsy, deep small bowel enteroscopy including management of obscure gastrointestinal (GI) bleeding, GI kineal stenting, endoscopic mucosal resection  
Board Certifications: Internal Medicine, Gastroenterology  
Phone: 617-636-5833

**NEUROLOGY**
Karen Rembold, MD  
Neurologist  
Clinical Specialties: Neuromuscular disease, electromyography (EMG)  
Board Certifications: Neurology  
Phone: 617-636-4948

**OB/GYN**
Craig Best, MD  
President and CEO, Tufts Medical Center Physicians Organization; Obstetrician and Gynecologist  
Clinical Specialties: General gynecology, gynecological surgery, urogynecology  
Board Certifications: Obstetrics and Gynecology  
Phone: 617-636-2229

**ORTHOPEDIC**
Peter Dewire, MD  
Orthopedic Surgeon  
Clinical Specialties: Foot, ankle, lower extremity  
Board Certifications: Internal Medicine, Orthopaedic Surgery  
Phone: 617-636-5269

**SURGERY**
Frederick Y. Chen, MD, PhD  
Chief Cardiac Surgeon  
Clinical Specialties: Surgical treatment of acquired heart disease, surgical repair of valvular heart disease, minimally invasive surgery, arrhythmia surgery, heart transplantation, circulatory assist devices  
Board Certifications: Thoracic Surgery  
Phone: 617-636-5590

Payam Salehi, MD, PhD  
Vascular Surgeon  
Clinical Specialties: Complex aortic surgery, thoracic outlet syndrome, cerebrovascular disease, vascular and endovascular surgery, venous surgery, complex wound care  
Board Certifications: General Surgery, Vascular Surgery (Board eligible)  
Phone: 617-636-5019
Tufts Medical Center is the only academic medical center in New England to earn the prestigious 2015 quality award from the University Health System Consortium.