

Johns Hopkins Bayview

# health & wellness

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JOHNS HOPKINS  
MEDICINE

# Mobile App Could Help with Heart Attack Recovery

**N**ationwide, one in five cardiac patients is readmitted to the hospital within 30 days, says Francoise Marvel, M.D., a third-year internal medicine resident and soon-to-be chief resident at Johns Hopkins Bayview. “They leave without the guidance, information and skill-building they need to get a healthy start,” she says.

Dr. Marvel is leading a team of Johns Hopkins physicians, nurses, designers and engineers who are collaborating with Apple on an app designed to empower heart attack patients in their recovery.

The app, called Corrie (“Cor” is Latin for heart), works with Apple Watch and would be the first cardiology app in CareKit, Apple’s new framework for medical applications. Corrie monitors a patient’s heartbeat, blood pressure and exercise, creating a record for patients and their doctors. It also alerts users when it’s time to take medications, and it pings if users have been sitting a long time and would benefit from a walk. Corrie also can be used to schedule follow-up appointments and learn about heart health through animated videos.



*Dr. Marvel (pictured second from the left) collaborates with a multidisciplinary team on a health app for Apple.*

“It’s like a digital health buddy to keep patients on track,” says Marvel.

She began developing the app in 2014 with support from Johns Hopkins Technology Ventures and several grants, including those dedicated to patient safety. The project gained momentum in 2016, when Dr. Marvel teamed with preventive cardiologist and mobile health expert Seth Martin, and with Whiting School of Engineering students Matthias Lee and Gavi Rawson.

For a pilot study, Apple donated 200 Corrie-equipped smartwatches to The Johns Hopkins Hospital and Johns Hopkins Bayview. Cardiac patients at those hospitals now receive the watches the day after they are admitted and keep them for 30 days after discharge. If the pilot shows Corrie can help those patients improve their health and prevent readmissions, the app could be available to cardiac patients at other hospitals within the next year.

*Reprinted with permission from the December 2016 issue of Insight, a Johns Hopkins Medicine publication.*

## Welcome New Physicians

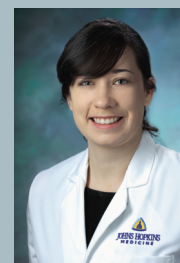


Alisa Coker, M.D.  
Surgeon

**Alisa Coker, M.D.**, joins the Johns Hopkins Center for Bariatric Surgery. She specializes in bariatric surgery, open and minimally invasive hernia surgery, anti-reflux procedures and gallbladder disease.



Ryan Graddy, M.D.  
Primary Care Physician



Megan Buresh, M.D.  
Primary Care Physician

**Ryan Graddy, M.D.**, and **Megan Buresh, M.D.**, have joined the Comprehensive Care Practice. Dr. Graddy specializes in general primary care, addiction, HIV and hepatitis C.

Dr. Buresh specializes in general primary care, women’s health, addiction, HIV and hepatitis C.

To schedule an appointment,  
call 410-550-0409.

To schedule an appointment, call 410-550-2999.



## Tee up for Patient Safety

### 22nd Annual C.R. Bard Golf Tournament

June 26, 2017

Hayfields Country Club

700 Hayfields Road, Hunt Valley, Md.

The annual golf tournament benefits Johns Hopkins Bayview's patient safety programs and initiatives, which reduce preventable harm to patients and improve clinical outcomes. Many of these programs, such as Dr. Marvel's, (see facing page), would not be possible without the support of hospital-funded grants, generous donors and fundraisers.

*For more information or to register, visit [hopkinsmedicine.org/jhbm/golf](http://hopkinsmedicine.org/jhbm/golf).*

### Community Psychiatry Program to Relocate to 5500 Lombard Street

In mid-June, Community Psychiatry will relocate to 5500 E. Lombard Street (directly behind the Johns Hopkins Bayview campus). Patients who receive care in the Mason F. Lord building were notified about the move and will receive treatment at this new location.

- **Programs moving on June 15 and 16** (open to patient on June 19): adult outpatient, child outpatient, Child and Adolescent Psychiatric Rehabilitation Program, Intensive Outpatient Program for Adults (IOPA) and administration
- **Programs moving on June 22 and 23** (open to patients on June 26): Children's Center, Adult Psychiatric Rehabilitation Program, Therapeutic Learning Center, Adolescent Intensive Outpatient Program, Child Mobile Treatment Program and School-Based Mental Health Program

*If you are a current patient in the Community Psychiatry Program and have questions about the move, please contact your mental health provider.*



## Research Update

Mind-Body Therapies to  
Decrease Anxiety in Children

Johns Hopkins Bayview pediatrician and NIH-funded mind-body researcher Erica Sibinga, M.D., is part of an international team that reviewed studies of mind-body therapies for children, including yoga, meditation, hypnosis and guided imagery. Research findings show many of these mind-body therapies are safe and potentially effective in helping children in a number of ways, including with pain and anxiety.

Dr. Sibinga contributed to the *American Academy of Pediatrics Clinical Report*, designed to inform health care professionals about mind-body therapies and to

help them guide pediatric patients and their parents when considering use of these therapies to improve children's concentration, decrease pain, control discomfort and ease anxiety.

*The Johns Hopkins Bayview campus is home to \$100 million in Johns Hopkins University School of Medicine research and \$213 million in National Institutes of Health research. Some areas of research focus include aging, dementia, addiction, drug abuse, obesity and metabolism, allergy and immunology, thoracic oncology, frailty, sleep, burns and much more.*

## Camp Superkids for Children with Asthma

Camp Superkids is an annual week-long, residential summer camp for children with asthma, ages 7 ½ to 12. Children come from all over the mid-Atlantic region to enjoy a camp designed especially for them, with their asthma in mind. Set for July 9 to 14, 2017, at Summit Grove Camp in New Freedom, Pa., Camp Superkids provides a full range of traditional camp activities such as swimming, arts and crafts, archery, Zumba, and outdoor confidence and teambuilding skills.

Some camp scholarships are available for those who qualify. Camper applications are available online at [hopkinsmedicine.org/jhbm/campsuperkids](http://hopkinsmedicine.org/jhbm/campsuperkids).



Find us on Facebook by searching for "Camp Superkids - camp for children with asthma."

For more information, email [campsuperkids@gmail.com](mailto:campsuperkids@gmail.com) or call 410-550-0374.

# A Woman's Intuition

Heart assessment helps patient avoid unnecessary surgery

Looking back on it now, MaryJo Musselman laughs as she tells the story of learning she might need heart surgery. She remains remarkably warm and positive no matter what she's talking about, from growing up in western Pennsylvania to meeting her husband of two decades in a New Jersey shore bar, or raising her children while battling leukemia.

Musselman was first diagnosed with leukemia 18 years ago, and began coming down to Johns Hopkins from her home in Toms River, New Jersey, for regular treatment while still bookkeeping for her husband's fitness and personal training gym. In what little spare time she had left, she remained actively involved with a national group of community service-minded fitness professionals, helping to build a community garden in Phoenix, Arizona.

## A Second Opinion

Several years ago, after an electrocardiogram revealed an unknown abnormality in her heart rhythm, Musselman visited a Toms River cardiologist for a cardiac stress test to check her heart's fitness. She was uneasy that despite a passing test and no family history of heart disease, her doctor wanted to perform surgery that would require inserting a line from her leg up to her heart and place her on heart medication regardless of the outcome. She made an appointment at the Women's Cardiovascular Health Center at

Pamela Ouyang, M.D.  
Director, Johns Hopkins  
Women's Cardiovascular  
Health Center



Johns Hopkins Bayview Medical Center for a second opinion.

As soon as Musselman met Pamela Ouyang, M.D., she felt at ease. She particularly appreciated Dr. Ouyang's clear communication. "I love her! She's calm, she's got a sense of humor, and I never feel rushed," she says. After performing some non-invasive tests and a thorough assessment, Dr. Ouyang confirmed that Musselman's heart was in good shape and did not require surgery. Musselman remembers, "When your doctor is thrilled, you're thrilled. I feel like I've been gifted life."

*MaryJo Musselman returned to her hobbies worry-free after avoiding heart surgery.*



For more information or to make an appointment at the Women's Cardiovascular Health Center, call 410-550-5191.



### The Next Step

With her clean bill of heart health, Musselman was able to begin exercising again. “Eighteen years ago I didn’t know if I’d be here one year later, but now I can plan for the rest of my life. My body is ready to go, and so am I,” she says.

She and her husband plan to move to Arizona to continue their work and community outreach. Until then, she says she won’t go anywhere else for care, and makes the three-hour drive for her occasional follow-up appointments. “You have to make the best decision you can

make, and say, ‘I’m worth going to Johns Hopkins,’” she declares. “My life is worth it and I’m grateful every day I get to make that trip.”

—*Martin Fisher*



**Watch  
Musselman  
tell her  
story at**

[hopkinsmedicine.org/jhbmcl/patientstories](https://hopkinsmedicine.org/jhbmcl/patientstories).

## Women’s Heart Health: A Whole-Body Approach

Although many women are very conscious of heart health and risk factors like high blood pressure or high cholesterol, they may not be aware of the specific heart health risks that women face. Several conditions that disproportionately affect women, such as depression, lupus and rheumatoid arthritis, put them at higher risk of heart disease. In addition, women’s lower testosterone levels make heart arrhythmias more likely.

To provide women the best care possible, the Women’s Cardiovascular Health Center unites expert cardiologists from the Johns Hopkins Heart & Vascular Institute with fitness, nutrition and mental health experts. This whole-body approach to women’s heart health includes risk evaluation, disease management and treatment, and lifestyle management.

# A New Weapon Against Lung Cancer

Immunotherapy shows promise in fighting off top cancer killer

“You have lung cancer.” These four words usually bring paralyzing dread, and for good reason. Lung cancer is the most devastating of cancers, killing more Americans each year than breast cancer, colon cancer and ovarian cancer combined. But researchers and clinicians are hoping immunotherapy can help make lung cancer a not-so-devastating diagnosis.

## Discovering New Hope

Immunotherapy is a way of treating disease or infection using the body’s own immune system. In a recent international study led by Julie Brahmer, M.D., director of the Sidney Kimmel Cancer Center at Johns Hopkins Bayview Medical Center, targeted immunotherapy decreased the risk of death or disease progression in lung cancer patients by 50 percent more than standard chemotherapy. In the same study, patients undergoing immunotherapy experienced a four-month greater increase in progression-free survival than those undergoing chemotherapy.

Julie Brahmer, M.D.  
Director,  
Sidney Kimmel  
Cancer Center



These are promising results in a clinical trial built on the discovery that certain immunotherapy drugs respond to certain proteins excreted by cancer cells—in this case, PD-L1 proteins abundant in stage 4 non-small cell lung cancer tumors.

Across the board, immunotherapy was successful in stopping immune system T cells from bonding with cancer cells carrying PD-L1 proteins on their surface, allowing the T cells to target cancer cells and destroy them.

“This tells us that there are patients who should greatly benefit from getting anti-PD-L1 therapy before chemotherapy,” explains Dr. Brahmer.

## Battling a Complex Fight

What makes the fight against lung cancer such a complex battle is the usual need for immediate and aggressive treatment. Most lung cancer is caught at an advanced stage, requiring high-dose chemotherapy that can cause debilitating side effects for patients already in a weakened state. “It’s often for that reason that half of people with lung cancer die within a year of their diagnosis,” says Dr. Brahmer. “It just becomes too much for the body to take at once.”

This has caused experts to look for new ways to tackle the disease. In recent years, the approach has shifted toward more targeted treatments designed to fight specific cancer mutations, such as advanced non-small cell lung cancer. It was a closer look at this specific mutation that led to the discovery of the PD-L1 protein being excreted from certain lung cancer tumors and bonding with T cells to take down the immune system.

Dr. Brahmer explains that about a quarter of those with advanced non-small cell lung cancer have high levels of the PD-L1 protein in their tumor cells. “We wanted to use immunotherapy to treat these individuals in hopes that it would target and block the PD-L1 protein from being able to compromise T cells and the immune system.”

The immunotherapy was indeed able to slow or stop further tumor growth, without the same side effects as chemotherapy. Patients then were able to shrink or eliminate the tumors with follow-up chemo or radiation.

“We showed that immunotherapy can benefit some patients early in their treatment. Our hope is that when we determine the best combinations of immunotherapy and targeted anticancer drugs, these patients may never need chemotherapy,” says Dr. Brahmer.

## Looking Ahead

Since the treatment is still new and costs are high, Dr. Brahmer is working to determine what types of patients are more likely to benefit from immunotherapy alone. She also plans to more closely study how it can benefit those with lung cancer mutations with lower levels of the PD-L1 protein.

“We don’t want to oversell this, but for someone like me who has worked for years in the field, this is a big deal,” she says. “I have patients who have been receiving immunotherapy treatments for several years. They’ve been able to continue with longer and better lives.”

—Jessica McQuay



**Watch** Medical oncologist Julie Brahmer, M.D., explain how immunotherapy works as a tool in treating lung

cancer at [hopkinsmedicine.org/jhbmcl/research](http://hopkinsmedicine.org/jhbmcl/research).



To request an appointment with the Johns Hopkins Lung Cancer program, call 410-955-LUNG (5864).

# No More Painful Reminders

Scar revision treatments help cancer patient move on with her life

**W**hen Caroline Zeman, 35, had surgery to remove a soft tissue tumor from the middle of her chest, the last thing on her mind was the unattractive, painful scar she would be left with.

“I was more concerned about being cancer-free than I was about how my chest would look,” she says.

After five surgeries—three to remove the tumor and two to reconstruct the hole that was left behind—Zeman developed a large scar that was bumpy, tight and painful. Daily activities were difficult to perform and cuddling with her young son was extremely uncomfortable.

She thought she'd have to live with the scar for the rest of her life—until she was referred to the Scar Revision Clinic at Johns Hopkins Bayview.

Julie Caffrey, D.O.  
Acute and reconstructive  
burn surgeon



## Finding Relief

The Scar Revision Clinic provides relief for severe scarring through compression, silicone and laser treatments. Although it can't erase the scar completely, treatment can improve



*Caroline Zeman feels like she can be a better mom to her son after her laser scar treatments.*

the appearance, reduce pain and improve movement by making the surrounding skin softer and more elastic.

After reviewing her options with Julie Caffrey, D.O., acute and reconstructive burn surgeon, Zeman opted to have laser treatments, which resulted in a flatter, softer and less painful scar.

“It's not just about the way a scar looks. It's how the patient feels,” says Dr. Caffrey.

## Making a Difference

Zeman has had eight laser treatments and has seen a big improvement in how her scar looks. She experiences very little pain, making it much easier to do one of her favorite things—cuddle with her son.

“One of the main reasons I sought treatment was to reduce the scar tissue enough so that I'd be able to feel if the tumor returned. Not only has the treatment relieved my concerns of the cancer coming back, it's also made my day-to-day life so much easier,” she says. “I feel like I'm a better mom and wife because of it.”

—Meghan Rossbach

## Scar Treatment Options

**Compression garments** apply pressure and reduce blood flow to the scarred area, which can reduce the thickness and minimize the appearance of your scar. Garments also can relieve the itching, burning and pain.

**Silicone sheets** act like an extra layer of healthy skin on your scar. The silicone hydrates and softens the scar tissue, which can improve its appearance or, in some cases, cause it to fade.

**Laser therapy** uses state-of-the-art technology to improve the elasticity of skin. Scars react by gradually flattening and softening. Dark scars tend to lose some of their pigment and, in many cases, lighten up to better match the surrounding skin. Many scars also become less red, swollen and itchy.

**Surgery** may be necessary depending on how complex the scar is. Options may include excision (cutting out the scar), revision and/or tissue expansion.

## Benefits of Laser Therapy

“We typically use a combination of treatments to improve the appearance or function of a scar,” says Dr. Caffrey. “However, laser therapy is the most effective for deeper, thicker scars.”

### The benefits of laser treatment include:

- Outpatient procedure. General anesthesia or light sedation is used, allowing patients to go home the same day as their treatment.
- Faster recovery time. Patients usually experience less swelling and pain, and fewer complications than with traditional procedures. Patients can typically return to their normal activities within three to five days of treatment.
- Accuracy. Lasers are more precise than traditional surgical tools and can reduce the appearance of a scar by up to 70 percent.



For more information or to schedule an appointment in the Scar Revision Clinic, call 443-997-9466.



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# Ask the Expert: Pediatric Headaches



**H**eadaches are a common reason children seek medical care. Christopher Oakley, M.D., director of Johns Hopkins Pediatric Headache Center, answers some common questions about the causes, symptoms, remedies and treatment of pediatric headaches.

## What causes headaches in children?

Any child can develop headaches. Although the exact cause is unknown, there are risk factors that make headaches more likely: brain chemistry, genetics, ethnic background, gender, chronic neurologic or psychiatric concerns, chronic medical illness, head trauma and lifestyle.

## What are the symptoms of pediatric headaches?

Pediatric headache symptoms vary based on the type of headache. The majority of headaches in children are either a general headache, tension-type headache, migraine or post-traumatic headache. Head or neck pain may be accompanied by light or sound sensitivity, nausea, vomiting, dizziness or vertigo. Other symptoms may include facial flushing, warmth, sweating, tearing, pupil changes, runny nose or increased saliva.

## When should a parent seek medical attention?

A parent should seek medical attention whenever they are concerned about their child's headaches. A parent's intuition is usually right, even if it turns out that there is no major underlying problem. Contact a doctor immediately if your child experi-

ences new or extreme headaches, a rapid progression of headaches and symptoms (especially vomiting), overnight headaches that awaken

the child, neurological changes, or if the headaches develop at a very young age.

## What are some remedies to treat pediatric headaches?

The most effective treatment is a multi-tier approach beginning with simple lifestyle adjustments such as getting good sleep, staying hydrated, eating healthy and exercising. These steps can be accompanied by alternative therapies such as cognitive behavior therapy, biofeedback, physical therapy and acupuncture. Additionally, daily preventive vitamins and supplements may be recommended. Daily prescriptions of antidepressants, antiepileptics, antihistamines and antihypertensives may also be considered, but used with caution.

—Sarah Ciociola

**Christopher Oakley, M.D.**  
Director, Johns Hopkins  
Pediatric Headache Center



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To request an appointment with Dr. Oakley, call 410-955-4259.