Making preparedness a priority

IN RECOGNITION OF September as National Preparedness Month, Paul Biddinger, MD, director of the Center for Disaster Medicine, shares helpful tips on how to be prepared for any emergency at both work and home.

HOW CAN I PREPARE FOR EMERGENCIES AT HOME?
Building a plan is a great first step. Make sure you and your family discuss shelter plans, evacuation routes and create a household communication plan. Also, have an emergency supply kit ready. Make sure you have enough water, food and medications for yourself, family members and pets for at least three days. Consider other items you may need to keep in your kit such as flashlights and battery-powered radios. Be sure to update the kit and review your emergency plan on a regular basis.

HOW CAN I STAY INFORMED IN THE EVENT AN EMERGENCY IS IMPACTING THE MGH?
Make sure you are signed up to receive notifications from the Employee Alert System (EAS). Keep your information up to date in PeopleSoft and make sure your cell phone number is listed in the Partners Phone Directory. You may choose to make your cell phone number confidential, so it is not displayed in the directory.

WHAT IS MY ROLE DURING AN EMERGENCY AT THE MGH?
Every department has an individual emergency plan. Talk with your supervisor about your specific plan before an event happens. During an emergency, report to your supervisor for instructions and stay on-site until you are directed to leave. If you are off-site, wait for instructions. If you are asked to come to the hospital, remember that your MGH ID badge serves as a disaster pass and may be needed to enter the hospital.

WHERE CAN I FIND MORE INFORMATION?
Ready.gov is a great resource with a customizable emergency kit checklist, plan templates – including the one above – and other information. Also, visit the Emergency Preparedness page on Apollo, the MGH intranet.
HubWeek 2019 will feature MGH leaders tackling challenging health and policy issues, and inspiring audiences with their vision for the future.

**A More Inclusive Future:**
Transgender Health, Culture and Policy

Oct. 2, 5:30 – 7 p.m.

An estimated 1.1 million people in the United States identify as transgender or non-binary and face significant health risks and barriers to quality care. Join us for a compelling discussion with Boston experts in transgender health, culture and policy.

Robert Goldstein, MD, PhD | Moderator
he/him/his
Medical director, MGH Transgender Health Program

Dallas Ducar, MSN, PMHNP-BC
she/her/ella
Psychiatric nurse practitioner, MGH Transgender Health Program

Mason Dunn
he/him or they/them
Director of Advocacy, Keshet

Jeremi Carswell, MD
she/her/hers
Director, Boston Children’s Hospital Gender Management Service (GeMMS)

**Bodies in Space:**
The Next Generation of Exploration

Oct. 2, 9:30 – 10:30 a.m.

For more than 50 years, Boston scientists and engineers have been at the forefront of space exploration. Join us for a thought-provoking discussion with scientists from MGH, Harvard and MIT.

Jonny Kim, MD
NASA astronaut and former U.S. Navy SEAL and MGH resident physician

Ariel Ekblaw
Founder & director, MIT Media Lab Space Exploration Initiative

Michael Johnson
Harvard University Center for Astrophysics & Smithsonian, Event Horizon Telescope team

Jeremi Carswell, MD
she/her/hers
Director, Boston Children’s Hospital Gender Management Service (GeMMS)

Visit www.HubWeek.org for tickets and a full HubWeek schedule.

20% Discount Code: MGH-HW-19
Additional 2019 HubWeek Highlights

Fifty speakers throughout three days with dozens of interactive experiences – that’s HubWeek 2019. Attendees will have the opportunity to drive a car powered by a hydrogen fuel cell, dance at a silent disco, wander amid art installations, or play an interactive game to find a cure for a deadly disease.

2019 speakers include:

- J. Stuart Ablon, PhD, director of Think:Kids, and Leslie O’Brien, MSW, LICSW, Aspire Works program manager, will offer a glimpse of the future from their respective fields.

- Chris Burkard, a photographer and filmmaker, will premiere his documentary Under an Arctic Sky, which follows surfers who travel to a remote corner of Iceland to find perfect waves.

- Kristine McDivitt Tompkins, former Patagonia CEO and co-founder and president of Tompkins Conservation, who helped to establish 11 national parks in Argentina and Chile.
Lab on a chip could solve the mysteries of non-alcoholic fatty liver disease

Non-alcoholic fatty liver disease (NAFLD) – the accumulation of liver fat in people who drink little or no alcohol – affects 30-40 percent of adults in the United States, and there are no known treatments. Over time, the accumulation of fat can cause chronic liver problems such as cirrhosis and liver cancer.

MGH researchers have developed a “lab on a chip” that can model different severity levels of NAFLD using one sample of tissue. The chip will help researchers learn more about the causes of the disease and test new treatments.

The study was led by Beyza Butoglu, PhD, and O. Berk Usta, PhD, from the Center for Engineering in Medicine.

Diabetes treatment goals flatline despite new drugs and efforts to extend care

Diabetes is the seventh leading cause of death in the United States, but the rate of individuals achieving treatment targets for the disease has not improved since 2005.

An MGH research team used data from Centers for Disease Control to analyze diabetes care from diagnosis and prevention to achievement of treatment targets. They found less than 25 percent of Americans achieved their treatment targets by controlling their blood sugar, blood pressure and not smoking tobacco.

The results demonstrate the need to develop new strategies for improving care and reducing barriers to treatment such as a lack of health insurance and the high cost of drugs, the researchers say.

The study was led by Pooyan Kazemian, PhD, of the Medical Practice Evaluation Center, and Deborah Wexler, MD, MSc, of the Diabetes Unit.

Imaging tool provides a look at cell functioning in cystic fibrosis patients

A groundbreaking new imaging tool developed by MGH researchers has made it possible – for the first time – to observe differences in the nasal passages of patients with cystic fibrosis (CF) at a cellular level.

The imaging tool, a catheter 2mm in size, uses a technology called optical coherence tomography to show images at a resolution of 1 micrometer – a 50th the size of a single human hair – and can be administered to patients without sedation.

A hallmark symptom of CF is the inability to effectively process mucus through the body. Using this tool, researchers found that the mucus of CF patients was dehydrated, causing it to move more slowly and impacting the speed of the cilia – the brushlike structures on airway cells that transport mucus.

The team also found that the mucus of CF patients contained more inflammatory cells and discovered patches of airway that had been completely eroded. The tool can be used to learn more about how CF affects the airway cells and to gauge the effectiveness of new treatments.

Guillermo Tearney, MD, PhD, investigator in the Wellman Center for Photomedicine, co-led the study.

---

Packing a lunch that packs a punch

**AS THE SCHOOL YEAR BEGINS,** Stephanie Harshman, PhD, RD, LD, research fellow in the Neuroendocrine Division and clinical dietitian at MassGeneral Hospital for Children, offers simple back-to-school snack hacks.

**WHAT SHOULD PARENTS KEEP IN MIND WHEN PACKING A SCHOOL LUNCH?**

Lunches should provide a nutritional balance that covers the major food groups: grains, protein, fruits and vegetables. Most importantly, parents should avoid prepackaged foods like yogurt tubes and some granola bars that may be easy to pack but are low in fiber and high in added sugars. Though many deli meats tend to be high in saturated fat and salt, there are some more lean and low sodium options that can be used.

Parents should be creative in their lunch preparation to add excitement to the lunch box – for example, use cookie cutters to slice fruits, vegetables and sandwiches into fun shapes. Also, creating a lunch packing station where kids can help provides a learning opportunity and allows them to feel good about their healthy choices.

**CAN A PARENT PACK THE SAME LUNCH FOR CHILDREN OF DIFFERENT AGES?**

The general nutrition requirements are the same for children older than 1 year and for adults. Meals, including lunches, should focus on a variety of fruits and vegetables. At least one half of all grains should be whole grain and solid fats, added sugars and salt should be minimized.

**WHAT IS THE BEST DRINK OPTION?**

Most kids don’t need anything other than water. The exciting advertisements and marketing around sports drinks, natural fruit juices, and energy drinks make them a desired, yet unhealthy choice for kids as they are often packed with added sugars. Parents can instead add sliced citrus fruit, frozen berries – they act as flavorful ice cubes – or cucumber to water to add flavor and limit sugar. Let your child choose their fruit or vegetable addition to get them excited about their healthy drink.

**MANY ADOLESCENTS ARE HEADING TO THE FIELD AFTER CLASS. WHAT SNACKS SHOULD THEY FUEL UP ON BEFOREHAND?**

Fiber, proteins and carbohydrates are key. They will keep kids satisfied and provide that extra energy boost. Cheese sticks, apple slices and dried cranberries are quick, healthy snacks that can sustain young athletes until dinner. Processed foods should be avoided.