Those are some of the unusual things that Marcus Shaffer, MD, has removed from children’s ears and noses. Dr. Shaffer specializes in problems related to a child’s eustachian tube, nose and throat (ENT).

When it comes to children sticking objects in places they don’t belong, noses and mouths are also area targets. “Children swallow coins all the time,” Shaffer said. “Many times, it’s because an older sibling has fed it to them, particularly if they’re under the age of 1 and haven’t developed the ability to grasp yet.”

While one might assume shampooing or even brushing one’s teeth would be more dangerous than children’s small natures, there can be serious medical consequences when children put things in their ears, noses, and mouths that don’t belong there.

“Foreign bodies in the mouth that get into the airway are the biggest problem,” Shaffer said. “Obviously, choking is a serious concern because if it can block the airway. Choking can lead to an “object going down the wrong way” and being inhaled into the lungs (aspirated), which can cause lung inflammation, infection and death.

One of the most dangerous objects anyone can swallow is a lithium battery (also called a button battery). These small, round, shiny batteries are attractive to children and are found in toys, games and common household products like remote controls, watches and cameras.

“Button batteries can get stuck in the throat and cause tissue injury within hours, leading to perforation (a hole in the esophagus) or death if not removed quickly,” Shaffer said. “They can also cause serious nasal injury in a short period of time.”

More than 3,500 incidents of button battery ingestions are reported to the U.S. poison control centers each year according to the American Academy of Pediatrics. The most serious injuries are usually associated with 20 mm diameter batteries, about the size of a nickel, because they are likely to get lodged in a small child’s esophagus. Symptoms may include wheezing, drooling, belly or chest pain, coughing, gagging or choking.

The only way to determine if a button battery has lodged in the esophagus is by having an X-ray. Go to the emergency room immediately if you suspect a child has swallowed a battery or develops symptoms.

The ears and nose normally don’t pose as many risks for complications from foreign objects because most things stuck in the nose can be sneezed or blown out, while most items stuck in the ear can be safely removed without any permanent damage.

So when should you call a doctor or go to the ER?

“If it’s an ear or nose issue, call your ENT first – those things can usually be removed in the office,” Shaffer said. “If you think your child swallowed or possibly aspirated something, go to the emergency room.”

Inside this issue

There are many dangers involved when giving children free reign on their devices. Learn about some popular apps and how they are sometimes used for inappropriate reasons. Page 2

An innovative screening offered at the CAMC Physical Therapy Center now can help identify weaknesses and help prevent injuries before they happen. Page 2

The child life therapy program at CAMC was created to help make the experience less intimidating and more rewarding for children and their families. See how it’s used to help families and children during hospital stays. Page 2

A nurse who had cared for countless stroke patients over the years, and even helped develop the first stroke protocol at CAMC, became a stroke patient herself. Her family knew the signs of stroke. Do you? Page 3

The cutting edge

New technology at CAMC is making one of the most challenging, complex and delicate processes of back surgery more precise and safer than ever before. Page 4

Neighbours taking care of neighbors

For the past 10 years, CAMC Teays Valley Hospital has been a staple in the community. Though small, the hospital provides many specialized services to the area, and is home to the only emergency room in Putnam County.

In 2006, CAMC purchased the former Putnam General Hospital, which was at risk of closing and in great need of repair. During the past decade, CAMC Teays Valley Hospital has transformed in many ways, expanding the number and quality of services provided, and connecting Teays Valley to the expertise of CAMC.

Technology

Providing high-tech care is a priority for CAMC. Soon after opening as CAMC Teays Valley Hospital, the imaging department updated to digital mammography, providing more accurate readings for mammography appointments and saving time in the long run.

The addition of the 64-slice CT scanner allowed for more comprehensive imaging, meaning quicker and more accurate diagnoses. Soon after, the software was upgraded, allowing for low-dose radiation, making it safer for patients while still providing the same quality of images.

The wound clinic purchased two hyperbaric oxygen chambers in 2014, opening up a new level of treatment for patients with slow healing wounds.

Also in 2014, the hospital installed an MRI system boasting a larger opening for obese and claustrophobic patients, as well as cutting-edge technology, limiting the amount of time a patient has to spend in the machine.

“It’s our goal to stay on top of new technology so we can provide the highest level of care to our patients,” said Randy Hodges, vice president/administrator of CAMC Teays Valley Hospital.

Renovation

In 2009, critical updates were made to the operating rooms, including the addition of high-tech surgical suites featuring high definition equipment for cleaner and more accurate images to help surgeons during procedures.

In 2014 CAMC Teays Valley Hospital opened a new, state-of-the-art intensive care unit, increasing the number of ICU beds from four to 10. This meant that all ICU patients would have private rooms, which reduces infection rates and eases stress for patients.

Future of care

In the future, CAMC Teays Valley Hospital plans to expand service offerings and continue to make improvements to the facility and equipment to ensure that patients receive the highest quality care possible.

“a majority of our employees are members of this community, and we take pride in caring for our neighbors,” Hodges said. “We will continue to invest in this community and provide outstanding care to Putnam County.”

Choking hazards: Keep your child safe

Choking is a common cause of unintentional injury or death in children under age 1, and the danger remains significant until age 5. Objects such as safety pins, small parts from toys and coins cause choking, but food is responsible for most incidents.

High choking risk objects and foods include:

- Unrefrigerated or broken balloons
- Baby powder
- Items from the trash (e.g., eggshells, pop-tops from beverage cans)
- Safety pins
- Coins
- Marbles
- Small balls
- Coins or metal caps
- Small, button-type batteries
- Hard, gooey or sticky candy or vitamins
- Apples
- Grapes
- Popcorn
- Peanuts/nuts
- Hot dogs
- Chunks of peanut butter
- Marshmallows
- Chewings gum
- Strangers
- Seeds
- Raw carrots

Source: American Academy of Pediatrics; Caring for Your Baby and Young Child: Birth to Age 5 (Copyright © 2009 American Academy of Pediatrics)
This concept of the child's program in the hospital setting was introduced in the 1990s as a way to create a more family-oriented experience for children. The program incorporates families into the child's care through play therapy and relationship support with anyone involved in the child's treatment.

"There is a lot of clarity as a result of the program," Bissett said. "The family meets so many people and hears so many things that sometimes the ‘kid lingo’ and play therapy is really helpful to them, especially when they are so overwhelmed.

Parental involvement is a large key to the success of the child life therapy program. Parents can be taught various comfort techniques to help make their child more at ease if his or other equipment are being used.

"We definitely want the parents to be present," Bissett said. "Instead of walking out of the room – which can add stress to the child – we can help them comfort the child, which can provide comfort to them, as well."

The program also offers pet therapy and a play room full of DVDs, toys and coloring books as part of the healing process and recovery for children.

"All of our therapy dogs are registered, and the handler works through the CAMC Volunteer Services program," Bissett said. "We just want as much normalcy for children as we can while they are here.

For more information about the child life therapy program or to donate to the children’s play room at CAMC Women and Children’s Hospital, call (304) 388-2596 or visit camc.org/ChildLifeTherapy.

Screening helps athletes reduce injury risk

Increasing your physical activity, whether on the football field, golf course or in the gym, can open the door for injuries to occur. An innovative screening offered at the CAMC Physical Therapy Center now can help identify weaknesses and help prevent injuries before they happen.

The Functional Movement System (FMS) screening is a quick, easy test that can determine your potential risk of injury due to limited or altered movement patterns that traditional physical exams often overlook.

Many local high school and college athletes, have taken advantage of the screening, but it can help physically active people of all ages.

"This screening benefits the healthy, active and unhealthy populations, and even individuals that are injured because it identifies potential problems and corrects them before other injuries occur," said Barry Stover, physical therapist at the CAMC Physical Therapy Center who is specially certified in FMS.

The FMS is a set of movement patterns that are evaluated by a physical therapist to identify imbalances and potential movement patterns in the body so they can be corrected before overuse and injuries occur. The tests expose the individual to functional movements where weaknesses and right/-left imbalances become more noticeable. Throughout the screening, participants are scored on a scale of reach movement. After the test, the physical therapist explains the results and recommends the best course of action if potential injuries or problems are identified.

This could range from specific corrective exercises to do at home to visiting a specialist to determine if further interventions, such as physical therapy, can help.

Participants who are given corrective exercises to work on at home are retested after completing the regimen.

"Every participant we have tested so far has increased their score," Stover said.

The FMS screening costs $50. Current patients can have the fee billed to insurance. The introduction and initial exam lasts approximately one hour.

For more information or to schedule an appointment, call (304) 388-4900 or visit camc.org/PT.
“When our patients walk out the door, we want them to know that they’re not Hopkins said.

In addition, CAMC employs dozens of case coordinators, social workers and nurse navigators who concerns once they have been discharged.

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“After patients are discharged from the hospital, we have an automated calling system that allows

standard because we want our patients to continue to receive the highest level of care possible.”

Patients with more complicated or severe cases may be assigned a home health agency or begin

managed to avoid complications and prevent it from worsening. Controlling risk factors, like

As with many chronic conditions, there is no cure for CHF. It is a condition that must be properly managed to avoid complications and prevent it from worsening. Controlling risk factors, like smoking, obesity and high blood pressure, and taking certain medications can be a life-long endeavor for most heart failure patients.

After his discharge, Laughlin was referred to the CAMC Congestive Heart Failure Clinic, an outpatient program led by trained medical staff that specializes in CHF treatment.

“They did a great job of explaining what was going on and what I needed to do,” Laughlin said.

“They taught us how to manage medications and make changes if necessary, and about changing our diet to limit salt and eat better. Having that guidance was really helpful.”

The CHF Clinic is just one example of the many programs and resources CAMC provides to its patients once they are discharged to continue their care.

“It’s our goal to ensure that once patients leave the hospital, they have the education and tools they need to manage their health, which can be difficult with chronic diseases,” said Diane Whelan, RN, who works in end-of-life and hospice care at CAMC.

“We know hospital stays and health care stresses are stressful and confusing,” said Cheryl Hopkins, care transitions coordinator at CAMC. “We never want patients to leave with questions about what to do to continue getting the care they need.”

“Transition of care is something that we place as a very high priority with our patients,” Hopkins said.

“As patients leave, we don’t just send them on their way. Our goal is to continue to help them as they move along the continuum of care.”

Less severe patients may be directed to outpatient care clinic and facilities to help manage their symptoms. In addition to the CHF Clinic, CAMC also offers education and resources to help manage chronic diseases through the CAMC Family Medicine Center, Outpatient Diabetes Education Program, pulmonary and cardiac rehabilitation programs and many more.

Patients with more complicated or severe cases may be assigned a home health agency or begin palliative or hospice care (see sidebar).

“For long-term care, we can connect patients to vendors who provide the services and resources they need – from medical supplies to hospice care,” Hopkins said. “We hold our vendors to a very high standard because we want our patients to continue to receive the highest level of care possible.”

“But patients are discharged from the hospital, we have an automated calling system that allows us to confirm discharge instructions, ensure prescriptions are filled and allow patients to request a call-back if they need additional help,” Hopkins said.

“For patients cared for by our hospitalists while in the hospital, we make follow-up appointments with their primary care providers,” said Lisa Randolph, CAMC call center supervisor. “This helps ensure that the patient’s doctor knows what’s happening and can continue the care that was started in the hospital.”

The CAMC call center also has licensed practical nurses in-house to answer questions if patients have concerns once they have been discharged.

In addition, CAMC employs dozens of case coordinators, social workers and nurse navigators who work with patients and their caregivers to provide education about their conditions and guide them through discharge planning and care. Many recently check in with their patients with phone calls to ensure there are no complications and can contact a physician if problems arise.

“To us, quality care extends well beyond the walls of our hospitals,” Hopkins said.

“When our patients walk out the door, we want them to know that they’re not on their own. We’re still here to provide education, support and guidance.”

For more information, visit camc.org.

Quality care continues even after patients leave hospital

Ronald Laughlin, 82, has lived in Charleston for more than 60 years. About 10 years ago during a hospital stay at CAMC, he was diagnosed with congestive heart failure (CHF).

“When I was young, my grandfather worked in the hospital. I was interested in how they cared for my grandfather and that sparked my interest in becoming a nurse practitioner,” said Dr. Samantha Mann, a CAMC emergency room physician who treated Laughlin.

Laughlin was one of the first patients to be treated by Mann after she completed a fellowship in hospitalist medicine.

“Dr. Mann was wonderful, she treated me and followed up with me to make sure I was doing well,” Laughlin said.

“For many patients, I was able to answer any questions they had or provide additional education,” Mann said.

Laughlin said he would recommend CAMC to anyone who needs care.

“CAMC is a great place to be treated,” Laughlin said.

Camc.org
The Cutting Edge

The leading edge of back care: new imaging technology for spine surgery

During back surgery, one of the most challenging moments is when the surgeon carefully aligns his surgical instruments to the precise area where screws, rods or implants must be placed. Now, new technology at CAMC is making this complex and delicate process more precise and safer than ever before.

The O-arm® Surgical 3-D Imaging System allows neurosurgeons and orthopedic spine surgeons to view highly detailed, real-time images of the spine during surgery. The 3-D images are displayed on a large monitor, allowing the surgeon to see exactly where to place surgical instruments and implants while carefully maneuvering around spinal nerves and nearby organs. This helps preserve healthy tissue and shorten the length of surgery. As a result, patients typically experience less invasive surgeries, faster recovery times and improved outcomes.

"First and foremost, this technology improves patient safety," said Charles Shuff, MD, orthopedic spine surgeon. "We can see structures more detailed than before, and by improving our visualization we can be more certain of our placement of implants like screws and rods."

The O-arm® is a portable imaging device that forms a ring around the patient's body. It rotates to perform a 15- to 20-second scan that generates a 3-D computer model of the patient's spine. During surgery, these images provide real-time verification of the location of surgical tools and implants to within a millimeter's accuracy.

The O-arm® is a significant improvement over the use of fluoroscopy (a type of medical imaging that shows a portable X-ray image on a monitor) commonly used for examining the spine during surgery.

"The O-arm® works similarly to fluoroscopy in that it takes two-dimensional images," Shuff said. "But the distinction is once those images are obtained, we can format these pictures in anatomical planes in a 360-degree application. I can see the anatomy of the spine moving from front to back. I can see it from side to side. I can see it from top to bottom. You don't get that in two-dimensional fluoroscopy."

The addition of the O-arm® greatly expands CAMC's neurosurgery and orthopedic spine surgery capabilities.

"Upper cervical spine surgery is fairly complex, and this technology allows us to perform more complicated surgeries in our region," Shuff said.

Patients who need spinal instrumentation, such as screws, rods, plates or implants, may benefit from CAMC's O-arm® technology. For more information, call Neurological Associates at (304) 344-3551.

Complex urologic surgery changes life for local teen

"For as long as I've been alive, I've had this problem," said Madison Townsend, 13, speaking of her life-long struggle with urinary incontinence. "I thought it was just accidents or something I was doing, but I knew it wasn't my fault."

Her whole life, Madison had been boasted about being leaky. It happened at home and school, day and night. No matter what she or her family did — cutting caffeine, limiting fluid intake, using the bathroom multiple times per day — the problem persisted.

"I would try to just constantly have a hoody or a jacket to tie around my waist to cover it up so I wouldn't get made fun of for it," Madison said. "I would try to hide it and change clothes, but nothing was ever working and it was constant."

Her mother, April, did what she could to help her daughter, including visiting multiple doctors.

"I felt frustrated as a parent going to all these doctors and not being able to find the answer, so I just tried to figure out what I could do to take care of her," April said. "It's just not something any child should have to go through."

Unwilling to accept this as a way of life, Madison and her family continued pursuing answers.

"When I was 11, I said, 'We need to see a new doctor because something is obviously not right because it's nothing I'm doing,'" she said.

Madison was referred to Ramanathapura Haricharan, MD, with CAMC Pediatric Surgery.

"While we do get a lot of referrals for bedwetting and incontinence, this was the first case like Madison’s that I’d seen since arriving at CAMC," Haricharan said. After running a series of tests, Haricharan was able to see for the first time what was causing Madison’s problem.

A normal kidney has one ureter that drains urine into the bladder. However, Madison had a duplex kidney, where one kidney has two separate ureters. In her case, one ureter drained normally into her bladder, but the second ureter was not connected to the bladder. The extra tube, called an ectopic ureter, was causing urine to bypass the bladder and constantly drain out of the body.

"After hearing the diagnosis, I was really relieved," Madison said. "I was like, ‘Well I was right!’"

To treat this condition, Haricharan performed CAMC’s first laparoscopic ureteroureterostomy, a procedure to reoute the ectopic ureter and connect it to the bladder using the normal ureter on the same side. Laparoscopic surgery is performed through a small incision using cameras and special equipment, which allows for quicker recovery, shorter hospital stays, and smaller scars than open surgery.

After a four-day stay at the hospital, Madison went home, and for the first time in her life, was in complete control. "She was dry the next day," Haricharan said.

"The procedure had a direct impact from day one."

Over a year later, Madison continues to see Haricharan for follow-up appointments, but she has had no serious problems.

"I can't believe it's been a year since her surgery because I don't think about it anymore, and neither does she," April said. "You never want something to be wrong with your child, but we were actually relieved to find out there was something and we could fix it. It's fixed. It's done. It's behind us."

Madison and her family are grateful to Haricharan for diagnosing her condition and providing compassionate care.

"It was getting the right physician that cared enough to take the time to find out, to not say, 'She's just peeing herself,'" April said. "Dr. Haricharan took a lot of time to draw it out and explain to us what was going on and what options we had as far as fixing the problem.""

"Like Madison, there may be patients out there who may not even be aware they have this problem," Haricharan said. "But they need to know that we’re here and they don’t need to lose all hope."

Madison hopes that by sharing her experience others suffering from unexpectedly incontinence may also find help. "If anybody else out there has this, I'd like for them to know that they're not alone and they don't have to suffer."

For more information, call CAMC Pediatric Surgery at (304) 388-1770.

Medical explorers

If you have a son or daughter who is at least 14 years old, in high school and may be interested in health care careers, please visit our Medical Explorers website below:

www.camc.org/MedicalExplorers

cem3.camcinstitute.org/moodle/login/index.php

Interested students must register online between April 26 and Oct. 13. Students also will be required to watch a HIFMA video before this meeting. Forms will be available at the meeting for students to sign verifying they have watched the HIFMA video. Parents are welcome to attend, but not required.

If students have questions after viewing the website, contact Debby Schrader at (304) 388-3376.

Meetings:

Monthly on 2nd Thursday 6 – 7 p.m.

Dr. Matthew Walker, orthopedic spine surgeon, uses the new O-arm® Surgical Imaging System at CAMC to perform complex back surgery. While the patient is in the operating room, the O-arm® device obtains 3-D images of the patient’s back. The images are then displayed on a monitor, which allows Walker to see with pinpoint accuracy and enhanced visualization where to place his surgical instruments while carefully maneuvering around delicate spinal nerves and nearby organs.

Patient benefits of O-arm® 3-D Imaging include:

• Safer, more accurate placement of spinal instruments for improved surgical outcomes
• Less time in surgery
• Reduced risk of the need for follow-up surgery
• Less radiation exposure from imaging

The kick-off meeting is Thursday, Oct. 13 in the WOU building auditorium.