THE UNIVERSITY OF TOLEDO MEDICAL CENTER
ORTHOPAEDIC MONTHLY

NEW ORTHOPAEDIC CENTER WILL PROVIDE FRACTURE CARE FOR ALL AGE GROUPS

If you’ve got children, you are well aware that accidents are bound to happen. Whether they’re mimicking their hero on the athletic field or simply playing on their swing set in the backyard, accidents happen and can quickly become a parent’s worst nightmare. Fortunately for your child and your nerves, The University of Toledo Medical Center’s Orthopaedic Department sees patients right away if it’s urgent, or within 24 hours otherwise. With the opening of the new orthopaedic center in September, patient care has never been more convenient or comprehensive.

With kids participating in many physical activities these days, fractures have become quite common. Symptoms for fractures may include: pain, swelling and deformity in the injured area; difficulty moving the injured limb; and warmth, bruising or redness around the injured area. Because children’s bones have an amazing healing capacity, treatments are often much different for children than adults. This healing ability allows surgeons to offer more non-operative treatments. It is important, however, to monitor fractures closely because children’s bones contain growth plates that can develop significant long-term problems if not handled properly. Often, pediatric fractures can be treated with a combination of splints and casts, while some may require surgery. The goal of the treatment is to control pain, promote healing, prevent complications and restore the normal use of the fractured area.

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BONY INJURIES DON’T STOP KIDS FROM GROWING, EXCELLING

It was Taylor Weghorst’s first day of school. He was six years old. After being cooped up in the classroom all day, it was finally his time to roam free. With his dad looking on, Taylor set to showcase some new skills he had honed on the monkey bars. Like any other kid, Taylor was trying to impress his dad with his newfound talent and may have been a little overzealous. As he approached the apparatus, Taylor clung on as he had innumerable times before. This time, however, Taylor wasn’t able to muster his inner Curious George-like talent that had enabled him to swing from bar to bar before. With one slip, Taylor found himself on the ground in an extreme amount of pain.
Taylor’s father, Scott, immediately decided to take his son to The University of Toledo Medical Center. Since UTMC provides its patients with specialized orthopaedic services, Weghorst knew it was his best option. With a complete orthopaedic team on staff, Weghorst was able to get his son examined quickly.

The ensuing examination showed that Taylor had fractured his left radius and ulna. Both forearm bones, the radius comprises the outside of the limb extending from the elbow to the thumb side of the wrist, while the ulna runs parallel on the medial side of the forearm. According to Weghorst, the examination showed reason for concern because of the severity of the injury.

Fortunately for Taylor, however, an orthopaedic team member emerged shortly after the procedure started with good news. Because the surgeons were able to manipulate the fracture to an almost perfect degree, they were able to achieve treatment without adding hardware. According to Weghorst, his son was so inspired by the orthopaedic team that he decided to set some lofty future goals.

“My son decided he wanted to become a doctor after that,” Weghorst said. “For Halloween we ordered him a medical coat, a briefcase and a fake portable telephone. We’ve kept close contact since then and have brought Taylor over several times to visit.”
YOUR CHILD’S BACKPACK MAY BE CAUSING BACK PAINS

With school just around the corner, the time is rapidly approaching for your kids to abandon the playground and return to the classroom. With society’s emphasis on receiving a sound education, children are being given a heavy workload now more than ever. This has translated into more books and accessories, greatly contributing to the normalcy and reliance on carrying backpacks. Despite their usefulness, backpacks can cause back pain if overloaded or worn improperly.

To understand how heavy backpacks contribute to back pain, it’s important to look at the composition of the back. Your child’s spine is composed of 33 bones called vertebrae with discs between them that act as natural shock absorbers. When a heavy backpack is incorrectly placed over your child’s shoulders, the weight’s force can pull your child backwards. Usually, children counteract this force by arching or bending forward at the hips causing the spine to compress unnaturally, contributing to neck, shoulder and back pain.

The best way to thwart lower back pain is by not allowing your children to overload their backpacks. According to the American Academy of Orthopaedic Surgeons, children should limit their backpack weight to between 10 and 15 percent of their body weight. Backpacks weighing more than this are too heavy to maintain a standing posture. This weight causes children to lean forward, affecting the natural curve in the lumbar and lower back regions. According to Dr. Nabil Ebraheim, UT professor and chair of orthopaedic surgery, overloading backpacks can cause a variety of problems.

“Kids these days think backpacks are moving libraries,” Dr. Ebraheim said. “Carrying heavy weights far distances to school and between classes without breaks can cause a variety of back problems. Kids need to feel healthy so they can keep up with their schoolwork.”

Another problem with backpack use is wearing them improperly. Here, a common problem is wearing backpacks over only one shoulder. This uneven distribution of weight causes children to compensate by leaning to one side. The frequent imbalance causes muscle strain. The problem can be exacerbated if backpacks have tight or narrow straps, as they can interfere with circulation and nerves.

There are, however, some simple ways to prevent your child from developing back pain. First, it’s important to monitor the weight of children’s backpacks to ensure they are not overloading them. Second, purchase a backpack with wide, padded straps to distribute the load over the shoulders evenly. Backpacks that have waist and additional shoulder straps may also prove beneficial in transferring the load to the hips and preventing slouching. Lastly, it’s important to concentrate the bulk of the weight closest to your child’s body in the middle of the back. This will help your child achieve better posture and balance, while preventing possible falls.

THE IMPORTANCE OF SCOLIOSIS SCREENING FOR ADOLESCENTS

Many can remember bending over at the waist in grade school and wondering what exactly the doctor was checking for. At that point in our lives, however, we were likely more concerned with whether Mom packed crunchy or creamy peanut butter on our sandwiches than trying to understand what the doctors were investigating. But what is scoliosis and why is it so important to be screened during grade school? Simply stated, scoliosis is an abnormal curvature of the spine. While everyone’s spine has natural curves, the X-Ray of an individual with scoliosis looks more like a “C” or an “S” than a straight line. Scoliosis, which can occur in the upper back, lower back or sometimes in the neck, is the most common spinal deformity affecting adolescents 10-16 years old. About 85 percent of scoliosis cases occur during adolescence and have no known cause (idiopathic scoliosis).

The most common way to screen for scoliosis is the forward bend test, also known as the Adam’s Test. First, a child will stand straight with their feet together so doctors can check to continued on page 4
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see if the shoulders, shoulder blades and hips are level and if the spine is straight. The child will then bend forward with arms extended. Here, doctors are looking for an elevation of one side of the back caused by an asymmetry of the back or chest wall. If a curve is found, an X-ray is often needed to determine the degree of spine curvature.

There are several factors that determine the physician’s course of action from here. First, physicians will monitor the curve with frequent X-rays. If the curve progresses rapidly or progresses past 20 degrees, the case will usually be referred to a specialist. Specialists then evaluate skeletal maturity, curve magnitude and curve location to determine the future course of action. According to Dr. Nabil Ebraheim, UT professor and chair of orthopaedic surgery, if the curve continues to progress rapidly or is above 30 degrees, treatment becomes necessary.

“It’s important to determine the skeletal maturity of the patient,” Dr. Ebraheim said. “Once skeletal maturity has been reached, small curves below certain degrees do not progress. If skeletal maturity has not been reached, however, large curves can continue to grow in young children. Furthermore, adult patients with back pain improve 90 percent of the time within six weeks, but for children it’s different. Children with back pain should be studied thoroughly to find underlying issues.”

A brace is typically the first line of defense for scoliosis cases. While a brace does not fix the curve or make the spine straight, it can help stunt further curve progression. The type of brace and when it must be worn depends on the curve and location. Some must be worn most of the day and night, while some may only need to be worn while sleeping. If the curve is between 45 and 50 degrees and does not respond to bracing, surgery is needed. During surgery, hardware is placed to straighten the spine with bone graft added to fuse the spine in the correct position. Fortunately, only about 10 percent of children with scoliosis require corrective treatment.