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Welcome to *Handshake*, The Hand Center Newsletter!

Dear Friends.

This year, we have all come to discover the simple things in life we take for granted; smiles, hugs, and a handshake to name a few. Handshakes have always been one of the focuses of The Hand Center at OrthoConnecticut. As



specialty-trained, board-certified orthopedic hand surgeons we value the fingers, hand, wrist, and every tendon that makes them work. So, during a time when we are asked to frequently wash our hands, refrain from shaking hands, and use our hands to put our masks on securely, we want you to know that we are here to help you keep each essential extremity functioning properly.

Feel free to reach out with any questions, comments, or concerns.

- The team at The Hand Center at OrthoConnecticut



Snap, Crackle, Pop: The Truth Behind Knuckle Cracking and Arthritis

Knuckle cracking or popping is the act of manipulating a joint to create a sharp popping or cracking sound. This action often helps to relax the muscles around the joint and increase joint mobility ... and often annoys others within earshot.

What makes that popping sound? The knuckles are covered by a joint capsule, which contains synovial fluid that provides lubrication and nutrition to the surrounding bones. The synovial fluid also contains gasses. During the act of joint manipulation, those gasses are released, resulting in that popping sound.

Does knuckle cracking cause arthritis? For more than 60 years, Donald Unger cracked the knuckles of his left hand twice a day and did not or rarely cracked the knuckles on his right hand. Radiographic results revealed no arthritic changes when the left and right hands were compared. As a result of his research, Dr. Unger earned the Ig Nobel Prize in 2009, awarded for "achievements that make people laugh, then think."

HAND SURGERY

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HAND SURGERY

Distal Radius Fracture

The bones of the forearm include the radius and the ulna. The radius is the larger of the two bones, and the end toward the wrist is called the distal end. A fracture of the distal radius occurs when the radius breaks near the wrist.

Causes

The radius is the most commonly broken bone in the arm, and distal radius fractures are very common. The break usually happens when a fall causes you to fall on your outstretched hands. It can also happen in a car accident, a bike accident, or a skiing accident. Osteoporosis (decreased density of the bones) is a factor in as many as 250,000 wrist fractures. Therefore, it has been suggested that if a person suffers a wrist fracture he or she should be screened for osteoporosis, especially if they have other risk factors.

Symptoms and Diagnosis

A broken wrist usually causes immediate (acute) pain, tenderness, bruising, and swelling. Frequently, the wrist hangs in an odd or bent

The radius is the most commonly broken bone in the arm, and distal radius fractures are very common.

way (deformity). The doctor will take an X-ray of the wrist. This is important to understand the extent of the injury. The fracture almost always occurs about 1 inch from the end of the bone. The break can occur in many different ways, however. A fracture that extends into the joint, is called an intra-articular fracture. A fracture that does not extend into the joint is called an extra-articular fracture. (The word "articular" means joint.) When a fractured bone breaks

the skin, it is called an open fracture. When a bone is broken into more than two pieces, it is called a comminuted fracture.

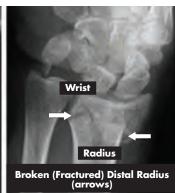
Risk Factors and Prevention

Osteoporosis can cause a relatively minor fall to result in a broken wrist. Many distal radius fractures in people older than 60 years are caused by a fall from a standing position. Although a broken wrist can happen even in healthy bones if the force of the trauma is severe enough, good bone health remains the most important prevention option. Wrist guards may help to prevent some fractures, but they will not prevent them all.

Treatment

If the injury is not very painful and the wrist is not deformed, it may be possible to wait until the following day for treatment. Apply an ice pack to the wrist and elevate the wrist until a doctor is able to examine it. The wrist can be protected with a splint. If the injury is very painful, if the wrist is deformed or numb, or if the fingers are discolored, it is necessary to go to the emergency department or OrthoCare Express.





There are many treatment choices. The choice depends on many factors, such as the nature of the fracture, age and activity level of the patient, and the surgeon's personal preferences. If the broken bone is in a good position, a cast may be applied until the bone heals (usually about 6 weeks). Sometimes, the position of the bone is so much out of place that it cannot be corrected or kept corrected in a cast, which has the potential of interfering with the future functioning of your arm. In this case, surgery may be required.

Prognosis

Most Fractures hurt moderately for a few days to a few weeks. Many patients find that using ice, elevation, and simple, nonprescription medications for pain relief are all that is needed. If pain is severe, patients may need to take a prescription-strength medication, often a narcotic, for a few days. Most surgical incisions must be kept clean and dry for 5 days or until the stitches are removed.

Most patients return to all their former activities. The nature of the injury, the kind of treatment received, and the body's response to the treatment all have an impact on the final prognosis, but some generalizations can be made.

- Most patients will be able to resume light activities, such as swimming or exercising the lower body in the gym, a month or two after the cast is taken off or after surgery.
- Most patients can resume vigorous physical activities, such as skiing or football, between 3 and 6 months after the injury.
- Almost all patients will have some stiffness in the wrist, which will generally lessen in the months after the cast is taken off or after surgery. Improvement will continue for at least 2 years.
- Full recovery should be expected to take at least a year. Some residual stiffness or ache is to be expected for 2 years. Stiffness may be permanent, especially for high-energy injuries (such as motorcycle crashes), in patients older than 50 years, or in patients who have some osteoarthritis. However, the stiffness is usually minor and may not affect the overall function of the arm.

For more information, visit http://orthoinfo.aaos.org. Reproduced with permission from OrthInfo. © American Academy of Orthopedic Surgeons. www.aaos.org.









HAND THERAPY

Insights Into Endoscopic Carpal Tunnel Release Surgery



Pain, numbness, and tingling in your hand may be caused by carpal tunnel syndrome. A fairly common problem, it happens when the area around the main nerve from the wrist to your hand is too tight. The nerve is called the median nerve, and the small space in your wrist where it passes is called the carpal tunnel. The pain associated with this can be debilitating as proper movement of our hands and fingers enable us to perform simple, daily activities. Fortunately, minimally invasive surgical techniques allow for relief, including the restoring of normal sensation to the hands and fingers, and return to normal movement.

An effective surgical procedure for carpal tunnel syndrome is performed by using endoscopy to relieve pressure on the median nerve in the wrist, thus alleviating the pain of carpal tunnel syndrome. The endoscopic technique, performed on an outpatient basis, creates less pain and scarring than traditional open surgery and allows for a quicker recovery.

Here's How It Works

To begin, the wrist and hand are numbed with anesthesia. The surgeon makes one or more openings in the skin to allow for the endoscope, a tiny video camera device, and tiny surgical instruments to enter. The surgeon treats a band of tissue called the transverse carpal ligament, which spans the carpal bones of the hand forming a space known as the carpal tunnel. The surgeon divides this ligament to make room in this tunnel, which effectively takes pressure off the median nerve. When the surgery is complete, the wrist and hand are placed in a splint to inhibit motion and allow for healing. As this is performed on an outpatient basis, patients are monitored for a brief time in the post-op area, before going home.

If you have unexplained pain in your hand or wrist, consult with your OrthoConnecticut hand specialist for a proper diagnosis and treatment plan.

LINKS:

- New England Hand Society www.nehand.org
- American Association for Hand Surgery www.handsurgery.org
- The American Society for Surgery of the Hand www.assh.org
- American Society of Hand Therapists www.asht.org
- Hand Therapy Certification Commission www.htcc.org

CHECK THIS OUT...

The Bio-Mechanical Prosthetic Finger (BPF) is a unique prosthesis developed by a gentleman who sustained a finger amputation. Unlike most prosthetic fingers, the BPF has articulating joints to allow grasping and pinching.

Check out the website:

http://rcmenterprise.com/









DID YOU KNOW?

The skin on the palm side of our hand is very unique.

- It grows no hair.
- It does not have the ability to tan.
- It is tough and durable, but also sensitive enough to discriminate between a quarter and a nickel in your pocket.
- The skin is anchored to the bone through an intermediate layer of fascia, which prevents the skin from sliding around like a rubber glove.
- Fingerprints provide friction to allow us to grasp and hold onto objects.



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FINGER TIPS

Upper Extremity Winter Sport Injuries: Tips and Tricks to Stay on the Slopes

Snow, holidays, and winter sports make winter an exciting time of year for many of us. Skiing and snowboarding are among the most popular winter sports and upper extremity injuries are

common. If proper precautions are taken, you can reduce your chances of injury and make the winter sporting season more enjoyable. Here are some tips to help keep you on the slopes this season.

Skiing Injury: Skier's Thumb

Skier's thumb is the most common upper extremity skiing injury. This injury occurs when a skier falls while holding their ski pole. The pole places stress on the ligament in the thumb often resulting in a ligament sprain or tear. Both sprains and tears require medical attention and will often end your ski season early.

The best strategies to prevent skier's thumb include using ski poles without platforms or saber handles, avoiding restraining devices (wrist straps), and releasing your poles during your fall.

Snowboarding Injuries: Wrist Injuries

Snowboarding continues to be one of the more popular winter sports. In fact, it is one of the fastest growing winter sports of the past

decade. With both feet strapped into a snowboard, falling on your hands is a natural protective reaction. Although this protective reaction helps to prevent a head injury, wrist injuries have become commonplace. Fractures and wrist ligament injuries can often require surgery that includes the insertion of pins, plates, and/or screws, and often necessitates months of therapy to return to normal activity.

Wrist guards (or gloves with built-in wrist guards) may decrease the risk of sustaining a wrist injury while snowboarding.

If you sustain an injury to your thumb or wrist while skiing or snowboarding, immediate ice, compression, and immobilization is the best treatment. Follow up with a Hand Surgeon for the most comprehensive evaluation and best treatment options to help expedite your recovery.

More information can be found at the American Society for Surgery of the Hand. http://www.assh.org/Public/HandConditions/Pages/SkiandSnowboardInjuries.aspx

