



Hand Care Associates



# ORTHOPÆDICS

Warrenville • Wheaton • Carol Stream • Naperville • Bartlett • Winfield • 630-225-BONE (2663) • [www.OADortho.com](http://www.OADortho.com)



## Oh, my aching hands! Exploring hand surgery options at OAD

How important are your hands? Imagine how radically different a day would be if your sense of touch, ability to move your fingers, or even the presence of your entire hand were taken from you. How would you feed yourself? Could you clothe yourself? Drive to work? Have a job to go to?

Hands can even read for the blind and speak for the mute. All these uses take a toll, however. Hands and fingers are continually subjected to excess trauma and the rages of degeneration. In fact, few people survive an active lifetime without some significant injury or degenerative insult to one or both of their hands.

The need to address problems with the hand and a curiosity for understanding the intricacies of its function led to the development of medical and surgical subspecialties focusing on the hands. Techniques such as replantation of amputated limbs, transfer of complete body parts from one area to another to correct traumatic defects (such as toe-to-thumb), and the precise anatomic repair of divided nerves and arteries were unheard of when the American Society for Surgery of the Hand was founded in 1946.

Today such procedures comprise only a few of the full range of surgical options available, thanks in large part to the advent of the operating microscope, which can magnify small vessels and nerves up to 40 times their original size (enlarging, for example, a 0.5 millimeter vessel to appear 2 centimeters in diameter). The ability to magnify and repair tiny structures

within the hand also stimulated the creation of specialized instruments and techniques to prevent collateral damage to fragile tissues.

Medical and surgical options extending to the hand now encompass such diverse problems as congenital deficiencies, trauma, tumors, nerve compression, and more. OAD's Hand Care Associates can expertly address all the following problems:

### **Congenital Abnormalities:**

The earliest problems for which hand surgery might be considered are birth defects. The most common hand issues in infants are syndactyly (fused fingers) and polydactyly (extra fingers).

### **Acute Trauma:**

Hands and fingers, like other limbs, can be injured, mutilated, or even amputated. When such acute trauma occurs, the critical surgical decision concerns predicting final usefulness or degree of permanent pain after restoring blood flow to an injured or amputated part. Many ill-advised replantations or reconstructive surgeries have left throbbing, useless limbs where prosthetic devices would have functioned more effectively and painlessly. For this reason, not all patients are appropriate candidates for replantation or reconstruction.

### **Fractures:**

Fractures are among the most common (or at least the most frequent) problems faced by hand and upper



## ORTHOPÆDICS

extremity surgeons. The types and locations of fractures, from open and comminuted (multiple fragmented) to subtle and nearly invisible, are as varied as the individuals who sustain them and the causes of injury.

From the elbow to the fingertips, specific techniques have been developed to assure the earliest possible return to normal alignment and joint function. Casting or splinting alone can successfully treat many fractures. More significant or unstable injuries require surgical fixation to maintain correction and to allow early return of motion to adjacent joints. When fractures extend into a joint, the combination of surgical fixation and intense post-operative therapy are often critical to successfully recovering normal use.

### **Benign Tumor Removal:**

Many benign tumors of the hand and wrist are pain-free but interfere with precision movements or power activities. Among the most common are ganglia (lumps) on the wrist and hand. In many cases, these benign degenerative cysts, which often appear as firm masses, do not cause discomfort. Some even subside spontaneously. However, when pain persists or the cyst limits necessary function, it's a good idea to remove it.

### **Nerve Compression Relief:**

Many adult patients are bothered by numbness or a "loss of circulation" sensation in the thumb, index, and middle fingers, especially at night or when they get up in the morning.

There are many sources for these symptoms, but by far the most common is compression of the median nerve at the wrist where it passes through the carpal tunnel. When this diagnosis has been established and more conservative treatment fails, relief can be achieved by releasing the constriction surgically. Doctors can accomplish this endoscopically or through limited incisions.



### **Arthritis:**

In adult hand surgery, few procedures produce as much satisfaction as successful reconstruction of painful arthritic deformities. Over the years, reconstructive hand surgery has been refined more and more as understanding of the precise biomechanical bases for deformity has increased.

Procedures popular only a few years ago have been discarded on the basis of inadequate restoration of normal forces in the hand. In many instances, the appropriate "procedure" is nonsurgical, and so all patients should have adequate medical management before considering surgery. In

other cases, however, tendon transfers, muscle releases, joint replacement, or fusion may be necessary to balance or stabilize a hand.

As these examples suggest, hand surgery encompasses a broad spectrum of problems in all age groups. Surgical solutions provide a strong weapon in combating the disabilities of deformity and pain, but they do not stand alone. To achieve maximum results, patients must have appropriate preoperative medical care, postoperative therapy, and medical follow-up.

The physicians at Hand Care Associates have the requisite training, skill, and, most important, the judgment to care for your hand or upper extremity problems from initial consultation to rehabilitation with precision and understanding.

*OAD Orthopaedics is a multi-specialty orthopaedic practice, with convenient office locations in Warrenville, Wheaton, Carol Stream, Naperville, Bartlett and Winfield. OAD's specialists provide surgical and non-surgical, conservative expertise in all areas of orthopaedics including shoulder, hip & knee problems; sports medicine; total joint replacement, reconstruction & revision; hand/upper extremity; spine and neck conditions; physiatry; foot and ankle/podiatry; and workers' compensation. In addition, on-site diagnostic testing/MRI, physical, occupational, industrial and specialized hand therapy services are available at OAD Orthopaedics' state-of-the-art facilities. For appointments and information, call (630) 225-BONE (2663) and visit online at [www.OADortho.com](http://www.OADortho.com).*

*As featured in...*

The  
**Sun**  
Health