

The Five Ws of Hand and Upper Extremity Injuries

By Chet Deshmukh, MBA, OTR/L, CPC, CHDA

Our hands are remarkable. Of the human body's 206 bones, more than a quarter of them—58—are found in our hands. Perhaps more significant is the number of joints in our hands. When two bones articulate (meet each other) they form a joint. There are approximately 50 joints on the right hand and 50 on the left hand. And, as a general rule, each joint permits movement along at least one axis. Some joints—such as the small bones of the wrist—have very little movement, while others permit movement in more than one direction.

We use these wonderfully complex hands for many tasks—from light, delicate tasks to lifting, pushing, and pulling very heavy objects. Second only to our facial expressions, our hands support our ability to communicate with others. We use our hands for sign language or to play musical instruments.

But the very range and flexibility of our hands' capabilities are a source of injury: the variations in movement coupled by the many stressors we place on our hands can lead to injuries and disorders that need attention and care.

Technological advances in surgical methods have resulted in microsurgery and minimally invasive procedures to facilitate early recovery. While these breakthroughs in technology continue to support the recovery process, we are still exposed to the risks of surgical intervention.

Happily, many health care providers and payers are recognizing that alternatives to surgery can result in substantial benefits if the problems are addressed in the early stages. Patients with many diagnoses (*see box*) can be managed conservatively without



Mr. Deshmukh in a training session with other clinical healthcare professionals.

Mr. Deshmukh uses therapeutic ultrasound to deliver thermal energy for pain relief and healing of the forearm muscles.



WHEN SHOULD YOU SEEK TREATMENT?

The short answer is: as soon as possible. In most cases, it is cost-effective and more rewarding to start therapy while the body is able to recover naturally. For early recovery and to prevent irreversible changes,

ask your primary care physician or your orthopedic specialist for a referral to an occupational therapist who specializes in the management of hand and upper extremity injuries;

Your therapist will perform a thorough assessment of the strength, range of motion, dexterity, and sensation in your hand and upper extremity. He or she will coordinate with your physician to keep them informed of your progress and facilitate return to work if you were injured at work. In the case of a worker's compensation injury, you want to play an active role in your recovery process. Ask your case manager to help you find a therapy clinic that specializes in hand injuries.

WHERE TO SEEK TREATMENT?

Occupational therapy is available at outpatient clinics that specialize in the hand and upper extremities. Medicare has increased coverage for occupational therapy to \$1,880 for the rest of this year which means you can get coverage for services provided by an occupational therapist in an outpatient therapy facility.

It is never too late to schedule your first evaluation. Start taking care of your hands. Don't wait or let the window of opportunity go by. Most surgeons don't like performing surgery unless they have to!

We accept Workers Compensation Insurance, Medicare and other policies. Call us to learn more or sign-up for one of our free education sessions. **h&h**

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the need for expensive surgical procedures that may still involve risk of secondary complications.

For those with such hand injuries the following five Ws—who, what, why, when, and where—provide a guide for understanding the benefits of occupational therapy—both as an effective alternative to hand surgery, and a key component in recovering from surgery.

WHO IS A CANDIDATE FOR THERAPY RATHER THAN SURGERY?

The decision to employ therapy or seek surgery is generally determined by clinical evaluations by your therapist and your physician.

Our body has natural healing powers for the repair and recovery of injured tissues such as the skin, muscles, ligaments, and tendons. Occupational therapies

support this healing process in many cases when surgery is not necessary.

When we suffer a traumatic injury that results in damage to bones, blood vessels, nerves or severe trauma to tendons, the only way to address the problem is through surgical intervention. However, surgery can fix only the physical damage from the trauma. You will need to begin therapy soon after surgery to help gain lost movement, increase strength, improve sensation, and facilitate fine motor coordination in the hand.

WHAT TREATMENTS ARE USED TO MANAGE HAND DISORDERS?

Treatment for hand and upper extremity injuries may involve use of Physical Agent Modalities (PAM) such as hot packs and cold packs, therapeutic ultrasound equipment to deliver localized deep heat or to break up scar tissue, iontophoresis to deliver pain medications, and custom splints and braces to help support or assist movement of the joints.

WHY OCCUPATIONAL THERAPY?

Occupational therapy is a non-invasive, safe approach to healing. In most cases, therapy will facilitate early recovery of injured tissue and help you develop proper body posture, alignment, and function. Most work-related injuries that occur from being at a desk all day long and working on computers can be treated before the problems result in permanent damage.

And therapy is not just for certain age groups or professions. We treat hand injuries in children, young adults, and adults. Musicians, athletes, and professional sports players are one area of specialty. We understand movement and how the body recovers. We also understand how important it is for a musician to be able to play that melody or for a gymnast to be able to perform a complex maneuver. We focus on improving handwriting in children and for joint protection for active gardeners who may have some arthritis in their joints.

DIAGNOSES AND PROBLEMS MOST COMMONLY TREATED IN THE OUTPATIENT CLINIC

- Carpal tunnel syndrome
- Repetitive stress injuries from sports
- Tendonitis and ligament injuries in athletes
- Fractures and dislocations
- Nerve injuries and sensory disorders
- Trigger fingers and trigger thumb
- Rheumatoid arthritis and osteoarthritis
- Tennis elbow and golf-related injuries
- Rotator-cuff and shoulder injuries
- Pain, tingling and numbness
- Limitation in range of motion
- Weakness and loss of strength

For more information, contact:
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