

# STRRETCH

July, 2007

Volume 1, Issue 9

**Jacksonville  
Orthopaedic  
Institute  
Rehabilitation**

**San Marco  
858-7045**

**Beaches  
247-3324**

**Point Meadows  
564-9594**

**South  
288-9491**

**Westside/Riverside  
389-8570**

**University  
733-9948**

## **Individual Highlights:**

|                         |     |
|-------------------------|-----|
| Neck Pain               | 1   |
| Sports Drink/Water      | 2   |
| Hand Joint Replacement  | 3   |
| Cubital Tunnel Syndrome | 4-5 |
| Water on the Knee       | 6-7 |
| Child Weight Training   | 8   |

## **Neck Pain at the Workstation**

**By: Ehren Allen, PT**

As a physical therapist, one of the most common diagnoses that I treat is neck pain. In this age of computers, there is an increased prevalence of this complaint. If you work at a computer for a portion of the day, or surf the web for leisure, chances are that you are pre-disposing yourself to neck pain.

Neck pain may stem from the repetitive stress of sitting with poor posture, sitting in a chair that is not properly adjusted to your dimensions, or having your computer set up in a position that requires altering your body position to use it.

Here are a few suggestions that may decrease your risk of work station related neck pain.

1. *Sit in a chair that provides lumbar support.* Proper neck posture starts with proper low back and pelvic position. If your chair does not provide lumbar support, place a towel roll in the curve of your low back.
2. *Place you monitor straight in front of you and raise it to eye level.* This will decrease the chance of placing your neck in a compromising position for an extended period of time and decrease abnormal repetitive stress on neck structures.
3. *Place your keyboard and mouse on a low slide out tray.* This will decrease the excessive stresses that come holding the arms up and in front of the body. You may also try placing your key board in your lap.
4. *Take frequent breaks.* Stand up and walk around every 15 to 20 minutes. Turn you head from side to side and squeeze your shoulder blades together a few times. This will help loosen your muscles and force you to adjust your posture which has likely shifted.



Ehren Allen recently obtained his Manual Therapy Certification (COMT)

# Sports Drink vs. Water

By: Robby Hoenshel MPT, ATC

Dehydration occurs when the body is depleted of fluids causing elevated core body temperature, strain on the cardiovascular system, and increased sweat dissipation. As you become dehydrated you expose your body to increased risk of heat illness. Recommendations are to replace the amount of fluid lost during the activity by weighing before and after the activity or event. So do you replace the fluid lost with water or sports drinks?

The rule was always to replace with water if the activity that was performed was one of anaerobic nature and to use sports drinks if the activity was aerobic. You are not to rely on thirst alone to replace fluids as the thirst indicator becomes weaker as you age. A recommendation of daily water intake was established as 130 oz. for males and 95 oz. for females. Water, while replacing the fluid needs does not replace the sodium that is excreted while sweating. Water will also quench the sensation of thirst before the body achieves the proper fluid balance / re-hydration. Sports drinks with proper amounts of sodium will encourage more drinking and allow a better opportunity for the body to reach proper fluid and electrolyte homeostasis.

If you want to drink more then you are more likely to achieve the recommended fluid and electrolyte levels that your body desires. Those individuals that sweat during activity should probably replenish their fluids with a sports drink so that they can replace the sodium and electrolyte content of their bodies. Improving hydration, providing energy, and decreasing the chance of heat illness are just some of the benefits of staying hydrated during and after activity.

There is no wrong answer to the question of which you should drink, although those individuals who sweat should strongly consider a sports drink as a means of replacing their fluid loss. As long as you replace the proper amount of fluid that is lost during activity and maintain proper hydration, you will decrease the chance of injury and help stay on top of your game so that you can continue to perform at your highest level.

References: [www.gssiweb.com](http://www.gssiweb.com)

## “Joint Replacements for the Hand”

By: DeAtra Clark, OTR/L, CHT

Joint replacements for the hand were first developed by Alfred Swanson M.D. in 1962. This procedure is most commonly used for patients with rheumatoid arthritis but, can also be used with degenerative process or post traumatic injury. A silicone implant is used that is a flexible hinge that acts as a spacer in the joint.



The procedure is described as a bone resection + implant + encapsulation = joint function. The surgeon removes the diseased bone of the joint, inserts the implant, and reconstructs the ligaments and tendons around the joint and the body builds scar around the implant. The implant has received wide acceptance as the preferred method for reconstruction of finger joints.

As humans we put many demands on the joints of our hands. We need stability to hold onto our hair brush, we need mobility to tie our shoes, and we don't want to live in daily pain. Joint replacements for the hand can provide both the stability and mobility needed for daily function and also be pain free.

The rehabilitation process for both the MP and the PIP joints of the hand can take up to three months. The patient wears a dynamic splint on the hand for eight to ten weeks. A dynamic splint is a splint that has moving parts which allow the joint to be exercised hourly. A static or still splint is provided for night use. Occupational therapy works with the patient to achieve a balance at the replaced joint of stability and mobility through splinting and exercise.

Following a joint replacement education in joint protection techniques is critical. Joint protection can also help prevent needing a joint replacement. These techniques include:

- 1) Maintaining muscle strength and joint range of motion.
- 2) Working to avoid positions of deformity.
- 3) Always use the strongest joint for the job.
- 4) Avoid holding your hands in the same position for a long time.

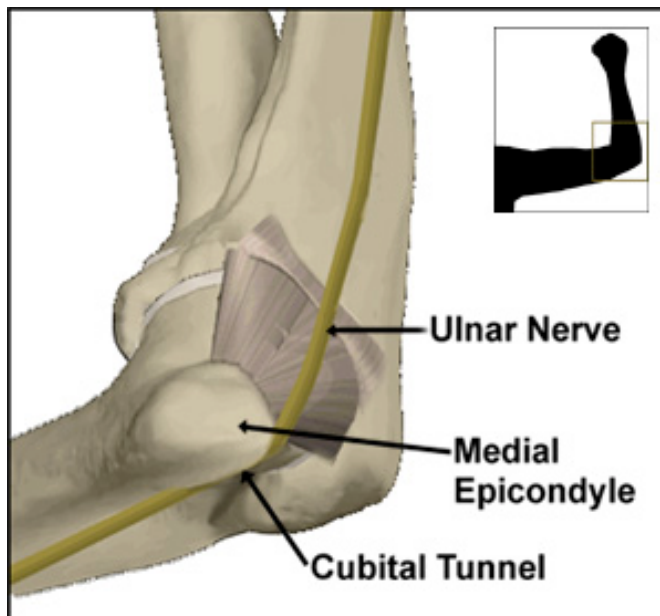


## Cubital Tunnel Syndrome

The cubital tunnel is behind your "funny bone" on the inside of your elbow. Behind the funny bone (medial epicondyle), the tunnel is formed a bone surrounded by muscles and ligaments. The ulnar nerve passes through the cubital tunnel on its way from the arm to the forearm and hand.

### What is Cubital Tunnel Syndrome?

Cubital tunnel syndrome is pressure on the ulnar nerve behind the funny bone causing numbness and tingling in the ring and small fingers of the hand.



### What Causes Cubital Tunnel Syndrome?

In normal individuals, bending the elbow causes the ulnar nerve to stretch several millimeters. When this is done for activities that require repeated bending and straightening of the elbow, the nerve becomes inflamed. In some patients, the nerve shifts and can snap over the prominence of the medial epicondyle bone, which stretches and irritates the nerve. Leaning on the elbow or maintaining the elbows in a bent position for a long period of time (talking on the phone, sleeping), may cause repetitive pressure and irritation on the nerve. Direct trauma (fall, fracture) by the cubital tunnel may also damage the ulnar nerve.

## Symptoms

- Numbness or tingling in the ring and little fingers (early symptom)
- Loss of finger or hand strength (later symptom)
- Inability to straighten fingers
- Sharp, sudden pain when elbow is tapped or touched

## Making a Diagnosis

Following a physical examination:

The following tests can be performed to confirm cubital tunnel syndrome:

- Nerve conduction study measures the speed of the nerve signals running through the ulnar nerve
- Electromyogram (EMG) testing reveals problems with the muscles in your arm and hand
- Radiographs (x-rays) can rule out fractures, arthritis, or other problems that may cause your symptoms

## Treatment

- Rest: stopping the activity that is causing the symptoms
- PT/OT to resolve impairments and return patient to function
- Medications to decrease inflammation
- Switching to headset-style phone
- Using pads under elbow
- Sleeping with your arm straight
- Wearing a special elbow splint at night
- Surgery (ulnar nerve transposition) if conservative measures fail. This shifts the ulnar nerve from the back to the front of the cubital tunnel. Surgery also may remove part of the medial epicondyle bone. This can release the nerve from the tunnel.

## Resources:

1. [www.healthpages.org/AHP/LIBRARY/HLTHTOP/CTD/cubtun.htm](http://www.healthpages.org/AHP/LIBRARY/HLTHTOP/CTD/cubtun.htm)
2. [www.indianahandcenter.com/medical\\_cubital.html](http://www.indianahandcenter.com/medical_cubital.html)
3. [www.handsurgeon.com/cubital.html](http://www.handsurgeon.com/cubital.html)
4. [www.e-hand.com/hw/hw007.htm](http://www.e-hand.com/hw/hw007.htm)



## Water on the Knee

By: Justin Bland, M.Ed., ATC

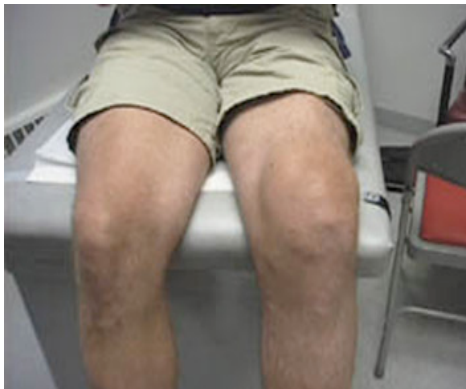
Have you ever woken up with a swollen body part? It is not uncommon for areas of swelling to appear without you noticing. Well that water on your body part is not water at all. So what exactly is that stuff. That stuff is swelling or inflammation, and is usually the result of some type of trauma (small or large) to an area on the body. This swelling can be a result of the body reacting to exercise, falling down, twisting an ankle or even an infection.

### SO WHATS IN THE WATER?

The (Water) is actually a variety of dead tissue cells and blood often due to an injury to the local area. When any soft tissue (tendons, muscles, ligaments) or bone is injured it alters the local cellular metabolism and stimulates the body to produce an inflammatory response. This inflammation can generally be recognized as redness, swelling, tenderness to touch, and warmth.

### WHY IS THE INFLAMMATION THERE?

After any injury or trauma, the human body signals what is known as an inflammatory response to heal the injury area. The body sequences a complex physiologic cascade of events to promote healing. This healing involves white blood cells (WBC), red blood cells (RBC), and a large number and variety of chemical mediators to complete this healing task. This inflammatory response begins immediately following any injury and can last up to a week for a major trauma. The cellular reaction is a way for the body to protect itself, localize the damaged tissues, and set the stage for repair to begin.



[www.sportsdoc.umn.edu/.../visuals%20main.htm](http://www.sportsdoc.umn.edu/.../visuals%20main.htm)

### HOW DO I GET RID OF THE INFLAMMATION?

The common and current basic guideline to follow to help the inflammatory process consists of rest, ice, compression, and elevation (R-I-C-E). The practice of R-I-C-E can help promote the inflammatory process to aid in quicker healing. So after any injury it may be best to try and stay off or limit the use of that body part. He ice can help decrease the amount of swelling and help with pain relief. The compression aspect can be any type of elastic wrap or sleeve which applies pressure to the injury area thereby helping the body re-absorb the swelling. Elevating the injured body part above the heart will also help promote the decrease in the swelling. Another effective pro-inflammatory method is the use of non-steroidal anti-inflammatory medications (NSAIDS). Be sure to ask you physician for appropriate medications for you specifically.

## **SHOULD I USE HEAT OR ICE?**

In the event of new inflammation to any area of the body ice may be the safest method. Ice can be effective to decrease inflammation by cooling the injured tissue and slowing local circulation. This may help prevent further swelling initially after an injury. Introducing heat to an area of inflammation will further increase circulation and swelling, and may make the injury more painful.

## **References:**

*Therapeutic Modalities for Allied Health Professionals.* William E. Prentice. McGraw-Hill Companies Inc. 1998

[www.sportsdoc.umn.edu/.../visuals%20main.htm](http://www.sportsdoc.umn.edu/.../visuals%20main.htm)



## **When Should a Child Start to Strength Train with Weights?**

By: Jared Ernest PT

There is fair amount of confusion and uncertainty regarding the issue of young people (12 yrs and younger) training with weights and resisted movements. Many parents receive information that it is actually damaging to their child's bone growth and development. However this is more a myth than fact. Strength training when properly instructed and performed has many positive benefits for a young individual to include athletic performance

### How to Get Started

Children that are healthy can start regular exercise at the age of 5-6 years. This initial training should consist of body weight movement such as chin-ups, pushups sit-ups etc with focus on good form. Depending on child's strength and co-ordination modification to these movements may be required. Also at this time your child should be performing callisthenic type movements such as jumping jacks, leg kicks etc. These benefit your child from a stand point of muscular endurance and co-ordination.

As your child ages and develops the ability to perform movements with his/her body weight than a more traditional strength training routine can be introduced. This program should be basic to encompass the major muscle groups of the developing child/adolescent. Examples would be a chest press, lat row, leg extension etc. these movements should be performed with light weights and high number of repetitions

### Reaping the Benefits

A stronger child usually enjoys a more successful outcome with the sports they play to include less injuries. A healthy, physically fit child translates into a healthy, physically fit adult. It is never too early to instill the values of exercise into your child's psychic. Also it is a wonderful way for families to spend time together

### Finishing Strong

Properly demonstrated and performed there is not a reason your child should not be involved with building the muscles of his/her body. Physical therapists and athletic trainers at JOI Rehabilitation are well trained to develop a program for your child not only to assist with sports but general health and fitness.

