

Coping with Carpal Tunnel Syndrome and Arthritis

Tuesday afternoon 1:00 pm

Where: Grand Gallery (main level) Room C

Moderator: Ned Stoller, Director of AgrAbility, Easter Seals, MI

- 1:00 pm Carpal Tunnel Syndrome: Overworking the #1 Tool in the Farmer's Toolbox
- Amber Wolfe, AgrAbility Project Coordinator, Heartland Region, Arthritis Foundation -- An overview of Carpal Tunnel Syndrome (CTS) of the hand and wrist: The session will consist of a brief presentation on CTS and will include several real-life 3-D models of hand joints for the participants to explore. Hands-on activities will be used to simulate the difficulties and pain associated with CTS and helpful tools will be discussed.
 1. Participants will identify the common symptoms and causes of CTS
 2. Participants will be provided with examples of agricultural tasks that are associated with CTS
 3. Participants will gain knowledge regarding treatment methods of CTS
 4. Participants will explore assistive technologies and tools to help with CTS pain
- 1:25 pm Reducing Arthritis Pain for Fruit & Vegetable Growers
- Ned Stoller, Director of AgrAbility, Easter Seals, MI -- The session will consist of a brief PowerPoint presentation on Arthritis and methods of modifying methods, tools and equipment to relieve arthritis pain on the job. The session will include demonstrations of adaptive tools with information on where to purchase and how to fund such assistive technology:
 1. Participants will learn alternative working methods to reduce arthritis pain
 2. Participants will observe assistive technology demonstrations and tools to reduce arthritis pain
 3. Participants will learn about funding assistance to help pay for adaptive tools and equipment
- 1:50 pm Session Ends

Carpal Tunnel Syndrome: Overworking the #1 Tool in the Farmer's Toolbox

Amber Wolfe, AgrAbility Project Coordinator
Heartland Region, Arthritis Foundation

Carpal Tunnel Overview

The median nerve, along with ligaments and tendons pass through a narrow space in your wrist called the carpal tunnel. Once the nerve is irritated in these close quarters you will begin to experience symptoms such as numbness of the hand or certain fingers, pain, tingling or "pins and needles" and eventually a reduction in strength in the hand.

Sometimes it can become difficult to pick up a coffee cup or grasp a pen. When the nerve passing through the carpal tunnel is irritated, you may experience hand numbness that is severe enough to awaken you at night.

Causes

The jury is out on the exact cause of carpal tunnel syndrome because it varies from one person to the next. Some causes include a congenitally small carpal tunnel, swelling in the wrist area following injury, fluid retention especially during pregnancy, repetitive wrist motion or cocking the wrist at an uncomfortable angle.

Some medical conditions including diabetes and rheumatoid arthritis or changes in weight may also bring on symptoms. Carpal tunnel syndrome can run in families and it can also result from unidentified triggers.

Progression

Carpal tunnel symptoms can wax and wane; more than one third of sufferers find that their symptoms disappear, only to reappear again at a later date. If you have bilateral carpal tunnel--or symptoms in both wrists--you are more likely to experience ongoing problems.

Almost 50 percent of pregnant women experience symptoms that usually resolve after giving birth. Often treatment is not required, but if the symptoms reappear or worsen, it can indicate a more severe damage to the median nerve as it passes through the carpal tunnel. There are steps you can take to manage your condition.

Wrist Splints or Braces

There are two categories of carpal tunnel splints or braces. If you are working with a health care professional, he may order custom splints for you. Often the splints are fabricated by physical or occupational therapists. The benefit of the custom splint is that it is made to fit your hand and wrist precisely.

The splint is usually made of a hard, durable material and fastens to the hand and wrist using Velcro straps. Once a custom splint is fabricated, it can be further modified should there be areas of discomfort. Custom braces may wear better due to the type of construction, but they are usually of rigid construction. If you need a brace that allows more wrist mobility, be sure to discuss this with the therapist before the brace is made.

Your health insurance may cover the cost of the splint or brace if it is required for your treatment or therapy. Check with your health insurance provider prior to fitting the brace to determine what your out-of-pocket expenses will be, Cost could be a factor in your choice of brace.

The second type of brace or wrist splint can be purchased over the counter. Some brand names include Ace, Futuro, Ossur, OTC, Rolyan, Sportaid, IMAK and Prolite to name a few. These braces come in set sizes, so it's best to shop at a retailer who will allow you to try on the brace prior to purchase. This is the best way to find a brand that provides a good fit and determine which brace is most comfortable for you.

For daily use when you are at work, some prefer a soft wrist brace because it is comfortable and allows for more flexion of the wrist. For nighttime use, it may be best to choose a rigid brace or splint that aligns your wrist in a neutral position. This helps reduce irritation and inflammation of the median nerve.

The best splint or brace is the one you wear consistently because it is comfortable and it successfully reduces your symptoms. You may need to try more than one type of brace to find the one best for you.

Assistive Technology To Decrease Pain of Carpal Tunnel and Arthritis

Repetitive tasks done by fruit, vegetable and greenhouse growers may irritate the carpal tunnel and be very painful for workers with rheumatoid arthritis. Such tasks may include transplanting seedlings from flats into growing pots, pruning fruit trees and vines, picking produce, weeding with hand tools, operating power tools and driving tractors. There are three non-surgical strategies for dealing with carpal tunnel and arthritis pain in the hands: a) splints & braces, b) alternating motions & stretches, and c) adaptive tools or equipment.

Alternative motions & stretches:

- Wear the prescribed brace all the time
- Adapt movements and patterns and habits to accommodate the brace – it is forcing you to not move in painful, exacerbating ways
- Keep the wrist in neutral position
- Rest and stretch the hands for 1 minute every half hour
- Trade positions every half hour – it will seem slower, but then will save you more time at the end of the day when you would otherwise be incapacitated

Adaptive Tools:

- Transplanting – angle up the flats to keep wrist neutral
- Pruning – use powered pruners - \$3000 for pain & carpal tunnel surgery or powered pruners?
- Harvesting – sweet corn use power pruner, -save your hands for most critical work – sensory & grip like picking tomatoes
- Hand Tools – fat handles, 90 degree handles
- Power Tools – anti vibration gloves, tool balancers
- Tractors – anti vibration gloves

References

- FamilyDoctor.org: Carpal Tunnel Syndrome
- PubMed: Carpal Tunnel Syndrome - Can It Be a Work-Related Condition?
- PubMed: Multiperspective Follow-Up of Untreated Carpal Tunnel Syndrome: A Multicenter Study
- PubMed: Multicenter Study on Carpal Tunnel Syndrome and Pregnancy Incidence and Natural Course
- National Institute of Neurological Disorders and Stroke: Carpal Tunnel Syndrome Fact Sheet