



Working Together for Healthy Joints

# Hand Osteoarthritis

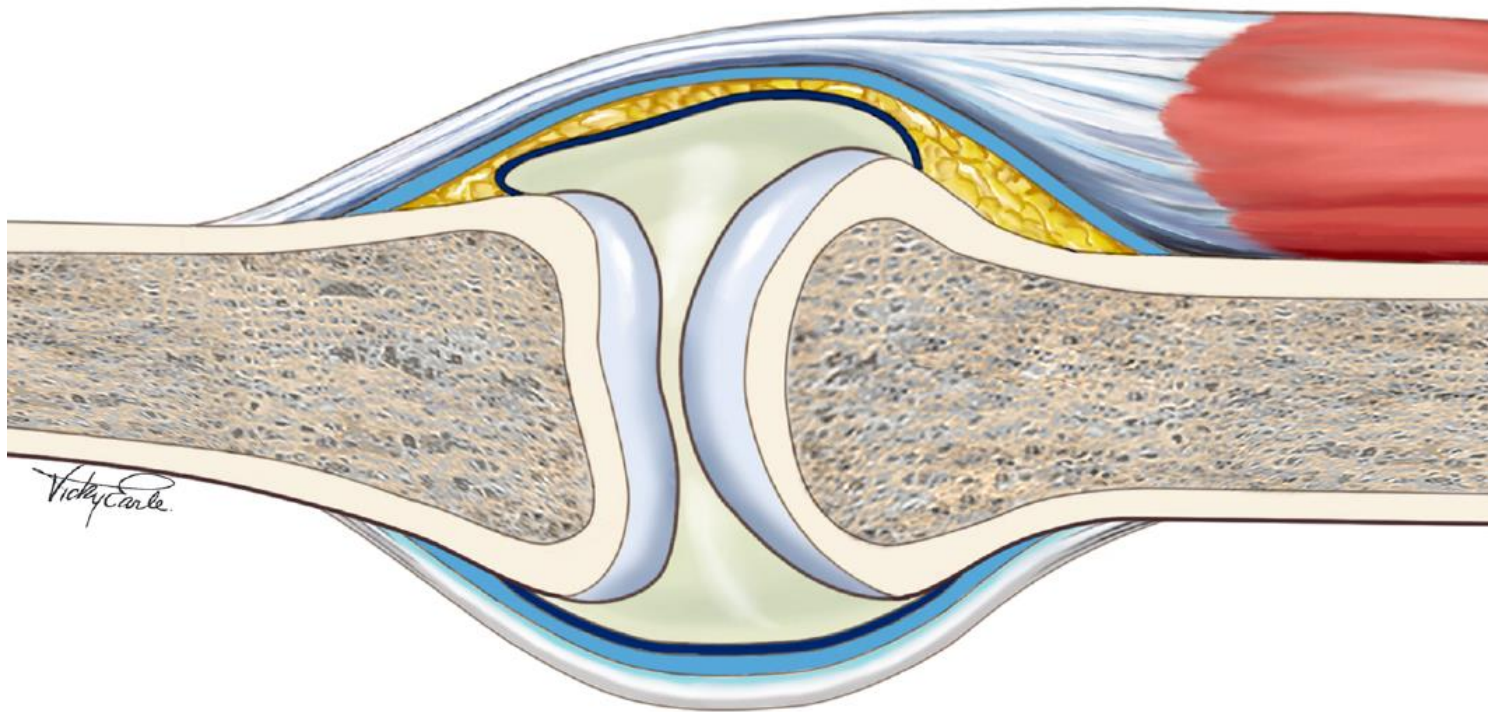
Revised Jan 2020

# Today's Objectives:

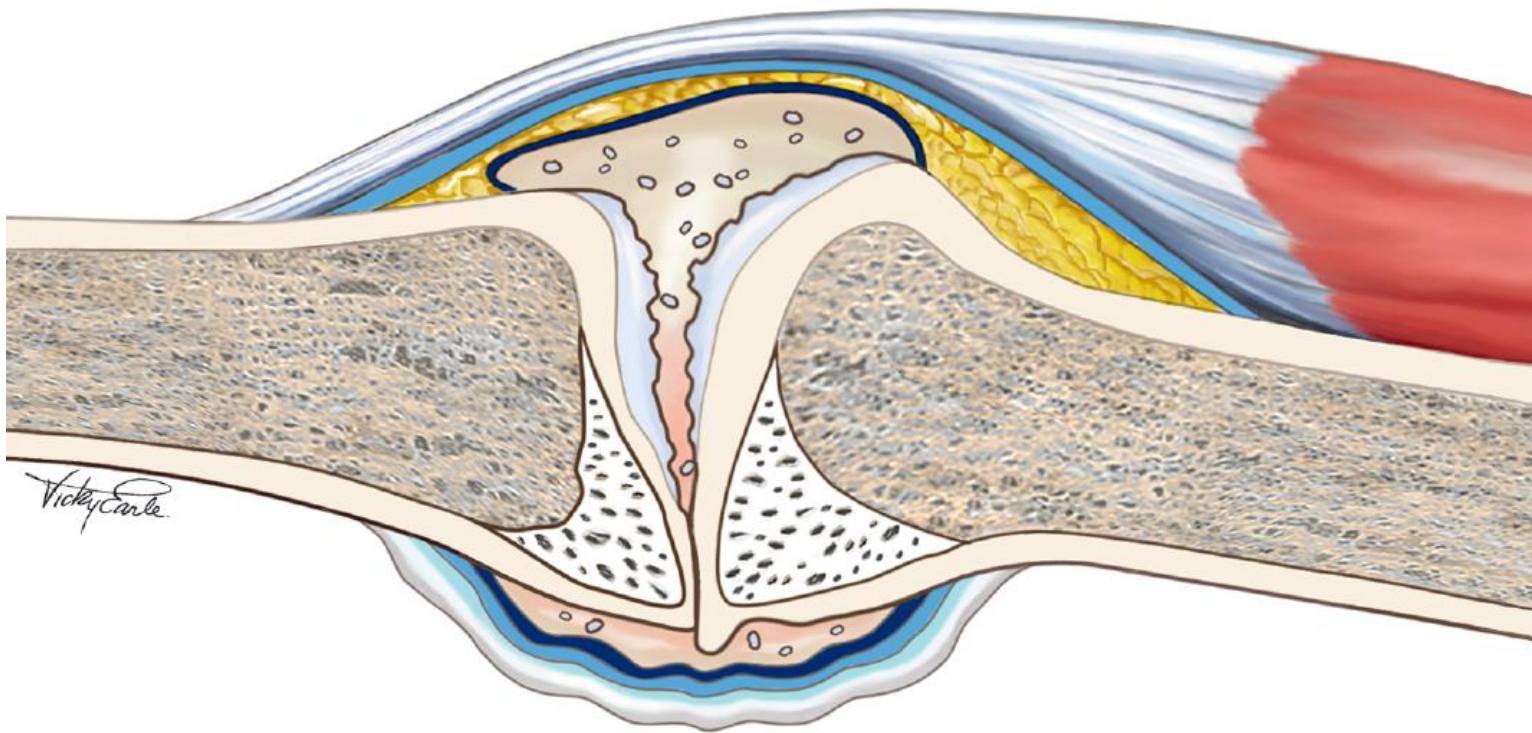


- Describe the signs and symptoms of OA of the hands
- Give examples of ways to protect your hands
- Demonstrate exercises for OA of the hands
- Describe ways to manage hand pain
- Describe other common hand conditions

# Healthy Joint



# Severe Osteoarthritis Joint

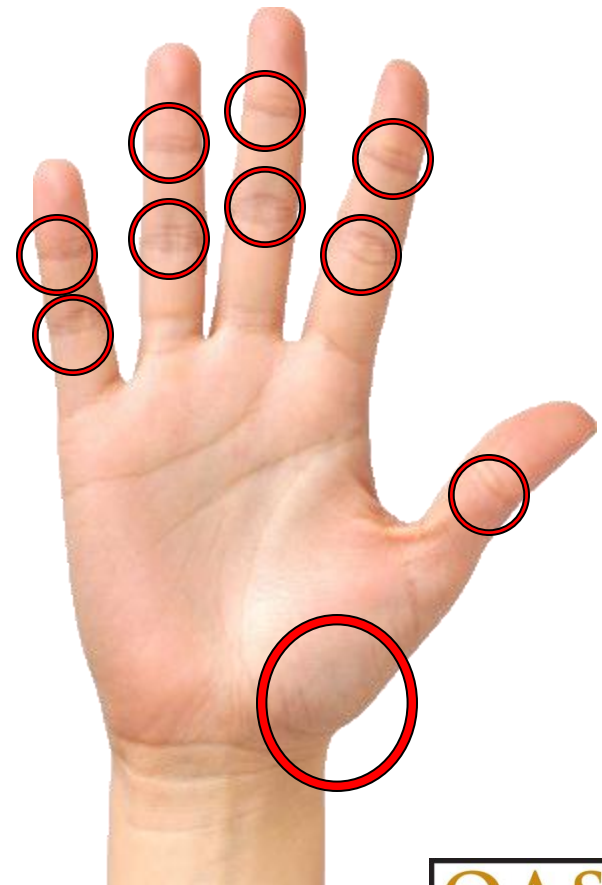


# Osteoarthritis in the hands

→ Most common at the base of the thumb and the small finger joints

→ Causes:

- Injury
- Wear and tear
- Obesity
- Genetics



# Other Arthritis Conditions

## → Rheumatoid Arthritis

- Inflammatory arthritis
- Autoimmune condition – body attacks own joints
- ~1% of the population (1:6 Canadians with OA)
- Mirror image – right hand and left hand will be similar

## → Erosive Osteoarthritis

- Often middle aged women – earliest 36year old
- Fast onset, increased pain and inflammation
- Up to 10% of hand osteoarthritis will be erosive OA
- Often several joints involved – bilateral DIP and PIPs

# Symptoms

- Pain (worse with increased use of hands)
- Stiffness (worse in morning)
- Swelling
- Warmth
- Decreased movement
- “Grinding” sensation in later stages



# Osteoarthritis of the small finger joints PIPs and DIPs



- Osteophytes, swelling
- Heberden node (DIP)
- Bouchard node (PIP)







Normal Hand



Hand with Osteoarthritis



Magnified view of DIPs

# Osteoarthritis of the Thumb – CMC, basal joint



- Inflammation at CMC joint
- Ligaments become loose
- Adductor muscle shortens and pulls the metacarpal, leads to squaring at CMC
- MCP hyperextends to compensate

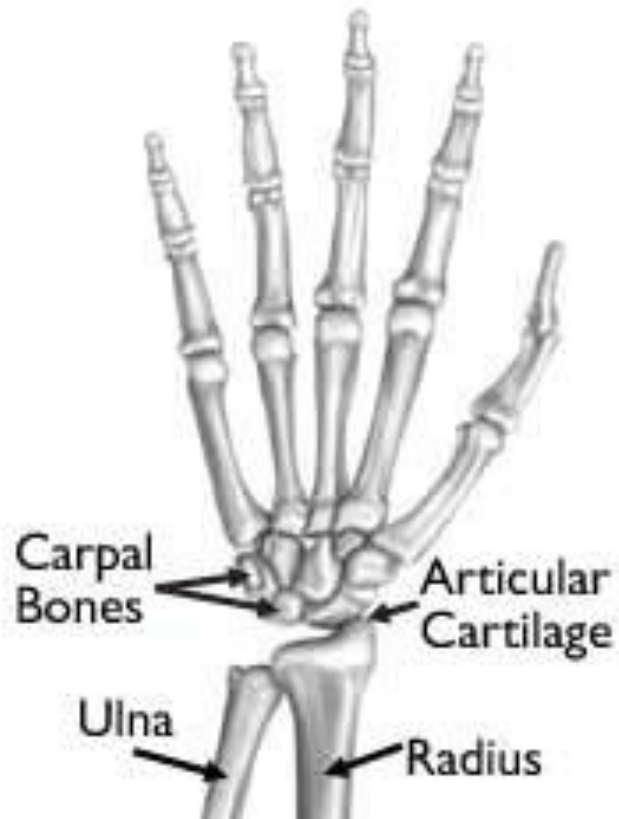


Normal CMC joint



CMC joint with osteoarthritis

# Osteoarthritis of the Wrist



# Treatment Goals

- Reduce pain
- Maintain daily function
- Slow progression of joint damage

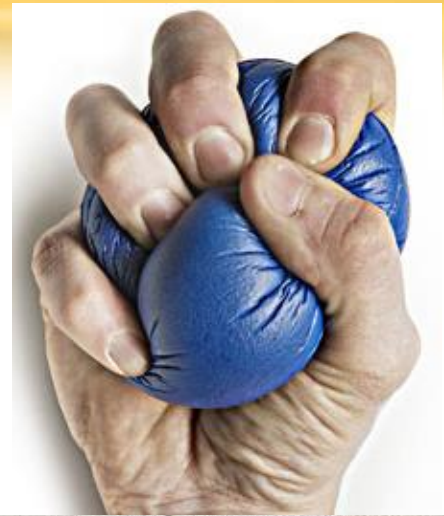


# Strategies

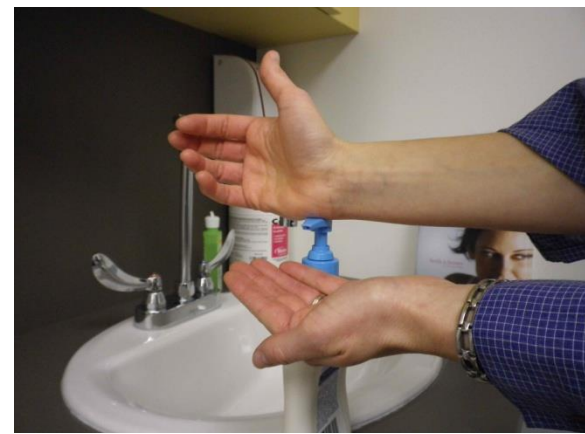
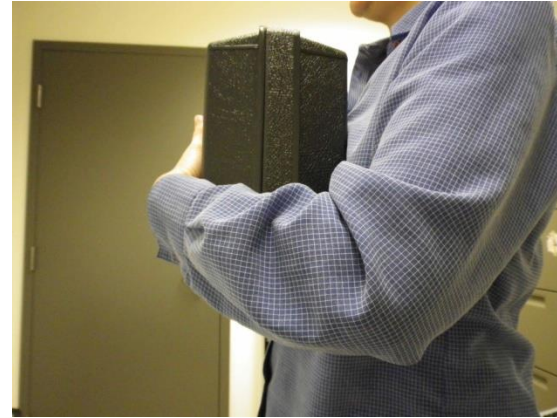
- Joint protection
- Medication
- Exercise
- Healthy body weight

# What Hurts the Hands?

- Tight gripping, squeezing & pinching
- Pinching with the thumb against the hand (lateral pinch)
  - Especially osteoarthritis
- Positions where the fingers are pushed toward the baby finger (ulnar drift)
  - Especially rheumatoid arthritis



# Use your bigger joints



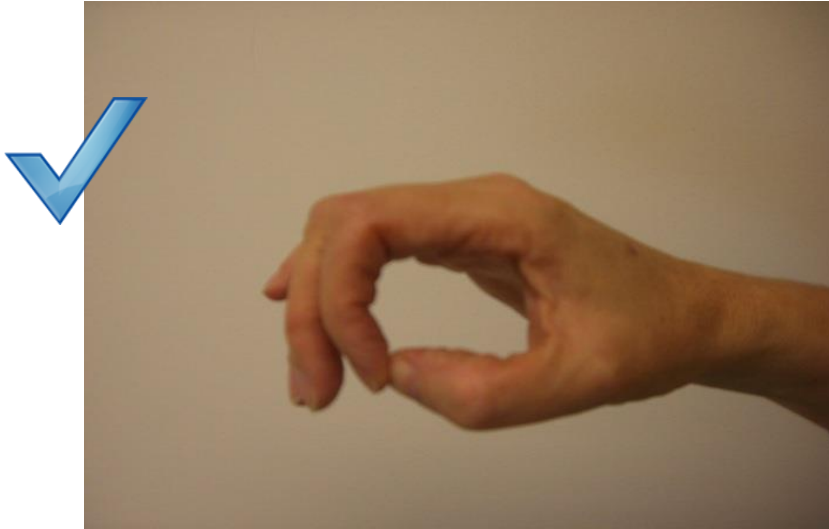


# Plan Ahead

- Take regular breaks (every 20-30 minutes)
- Use bigger joints to complete tasks
- Alternate heavy and light tasks
- Rest before you are tired or in pain
- Use neutral wrist/hand postures
- Use adaptive equipment
- Use splints as needed



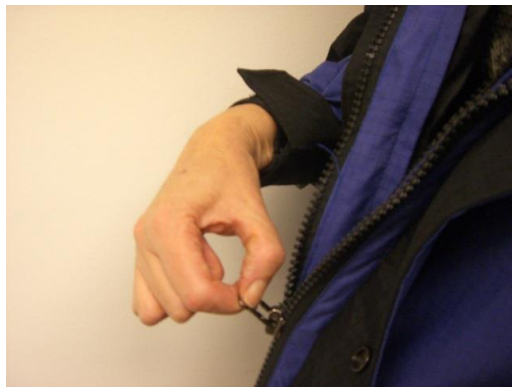
# Change your grip – “O” is OK!



→ Avoid pinch grip; use “C” or “O”

→ Do not put a lot of force through the thumb





# Adapted Equipment

- Use levers & friction
- Wider handles decrease grip strength required – build up handles with foam tubing
- Neutral wrist posture



Photo source: [www.oxo.com](http://www.oxo.com)

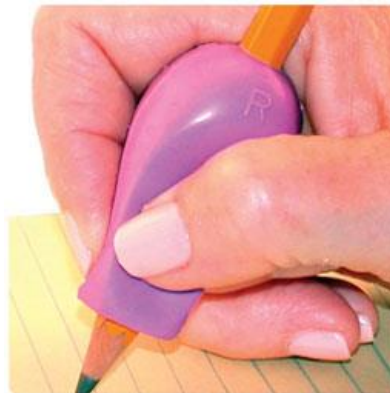


Photo source: Patterson Medical



# Adaptive Equipment



Multi-function Slicers



# Gardening Tools



Four times the gripping surface of conventional handles, with room for both hands.



# Splints

## Why?

- Manage pain, stiffness and swelling
- Improve function
- Reduce or prevent deformity



# Thumb Splints

## → Soft (neoprene)

- Must support the CMC
- Available over-the-counter



## → Hard

- For heavier activities
- Custom fit



MetaGrip



# Fingers

- Silver ring splints
  - Strong, expensive, custom-fit
- Plastic Oval-8 splints
  - Breakable, less expensive
  - Available over-the-counter but should be fit by a therapist
- Buddy taping (tape or buddy loops)– supports painful joints



# Wrist

→ Light support

- Wraps, Tape

→ Working splints

- Can also support thumb joint
- Available OTC, softer material with velcro and moldable bar
- Custom made with leather or plastic for increased support



# Splinting Savvy

- Splints should not cause numbness, sore skin or increased pain
- A custom splint may help:
  - Symptoms are not improving
  - Heavy job/leisure activity
  - Significant swelling/pain
- Consider seeing a hand therapist



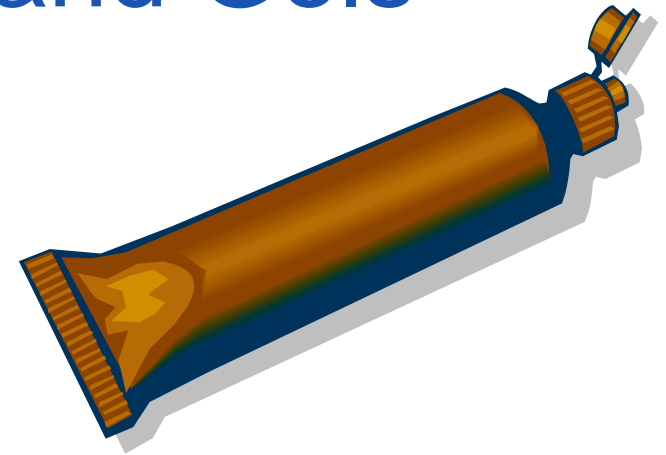
# Exercise

# Pain Management

## – Topical Creams and Gels

### → Capsaicin

- counter-irritant
- OTC – e.g. Lakota, Zostrix
- Trial 3x/daily for 2 weeks



### → Anti-inflammatory Creams/Gels

- OTC – Voltaren Emulgel 1%
- Prescription – Diclofenac gel/liquid (3,5,10%)
- Apply 3-4x day

# Cannabis for Pain Control



- Useful in a cream or salve
- Can be applied directly to the affected joint or area
- Look for products high in CBD (pain control) low in THC
- Start small
- Persistent and consistent
- [www.canada.ca](http://www.canada.ca) for info

# Heat and Cold

## → Contrast Baths

- Hot water for 30-45s
- Ice water for 15s
- Repeat for 10-15min

## → Paraffin wax bath

- Dip ~7 times
- Wrap hand in plastic bag, then towel
- Keep on for 10-15min



# Compression Gloves

- Decrease hand/wrist swelling
- Decrease pain and stiffness
- Provide warmth





# Digi Sleeve and Coban

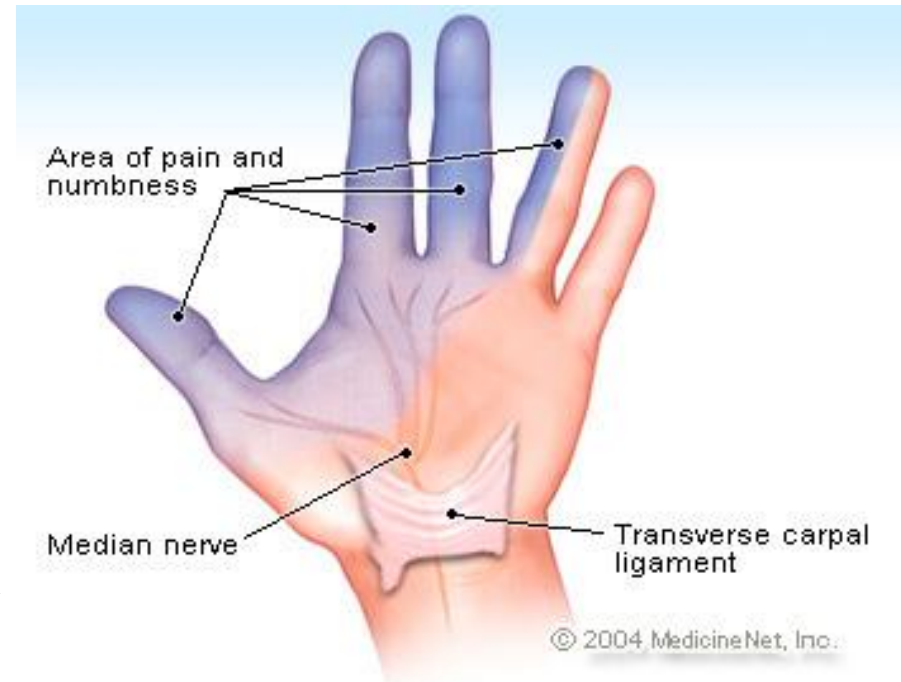
→ Decrease finger swelling and pain



# Other Hand Conditions

## → Carpal Tunnel Syndrome

- Numbness of the thumb, index, long and half of the ring finger
- Weak grip, poor fine motor control
- Treatment: change activities, NSAIDs, splints, hot/cold, exercise, steroid injection, surgery



**See a Hand Therapist if ongoing symptoms**

# Other Hand Conditions (cntd)

## Dupuytren's Contracture

- Thickening of connective tissue under skin
- Often years to develop
- Typically effects the palm & fingers

### CAUSES:

- Over 50
- Men more common than women
- People of Northern European descent ("Vikings disease")
- TREATMENT: Injections or surgical release if needed



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# Other Hand Conditions (cntd)

## → DeQuervain's tenosynovitis

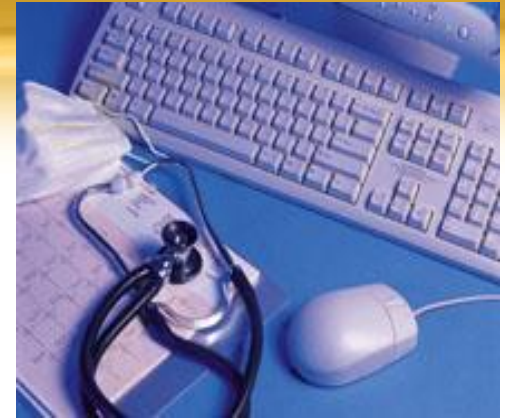
- Pain, swelling over thumb side of the wrist aggravated by motion
- Treatment: splint, NSAIDs, steroid injection

## → Trigger finger/thumb

- Catching, snapping, locking of flexor tendon
- Treatment: splint, change activities, steroid injection, surgery

**See a Hand Therapist if ongoing symptoms**

# Additional Resources



→ [oasis.vch.ca](http://oasis.vch.ca)

→ The Arthritis Society – [www.arthritis.ca/bc](http://www.arthritis.ca/bc)

→ BC Health Guide – [www.bchealthguide.org](http://www.bchealthguide.org)

→ Arthritis Products

- Local pharmacy or medical supply store
- Kitchen and home stores

# Questions?



"At least your arthritis didn't prevent you from opening that jar of pickles!"