

Head Shoulders, Knees and Toes: Neurological Presentations and Serious Mimics Pearls For Practice

Numb Hand - Is it Always Carpal Tunnel Syndrome?

Dr. Wendy Johnston & Dr. Daniel Fok

Red flags carpal tunnel syndrome (CTS) is something else

- Acute or sudden onset
- Persistent numbness or tingling
- Progression - not episodic with nocturnal exacerbation or predilection
- Weakness of hand muscles or outside the numb hand
- Proximal weakness
- Fine finger dexterity (doing up buttons, turning key, opening jars, zipping up jacket)
 - Difficulty with putting things back in high cupboard, lifting grocery bags
- Functional decline is a priority for assessment, including CTS (surgical referral)
- Autonomic symptoms (bowel/bladder symptoms)
 - Orthostatic symptoms
 - Erectile dysfunction
 - Severe constipation
- Constitutional symptoms
 - Weight loss
 - Night sweats
- Rash (think vasculitis)
- Radicular pain
- Speech or swallowing changes

Patients can have many diagnoses.

The patient may be there because of carpal tunnel symptoms, but you may notice other symptoms like atrophy or gait changes, pay attention, even if the symptoms aren't really bothering the patient.

What are some possible causes of hand symptoms?

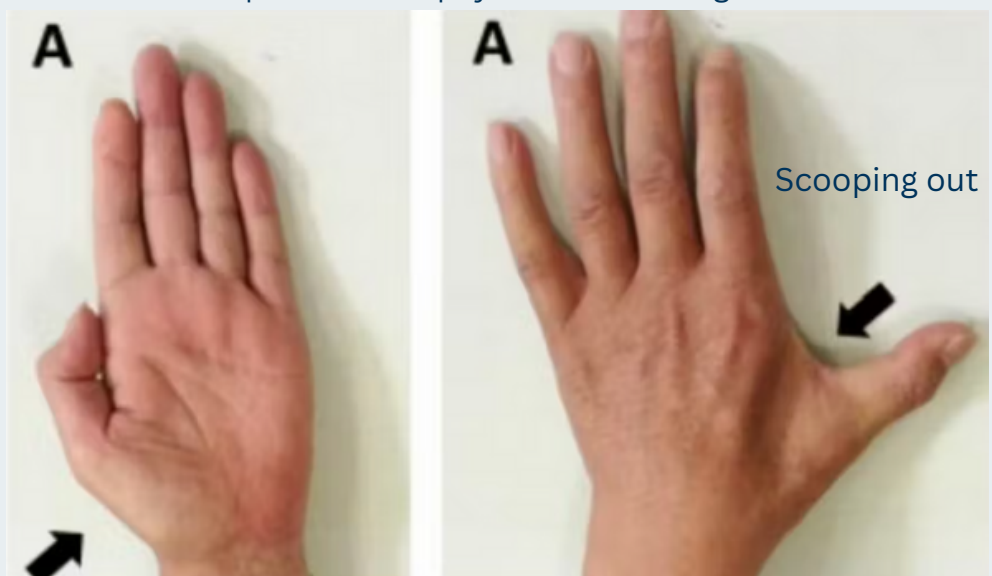
Muskuloskeletal/Rheumatologic

- Osteoarthritis
- De Quervain Tenosynovitis
- Inflammatory Arthritis
- Mechanical wrist pain without neuropathic symptoms

Neurological

- Stroke
- Cervical myelopathy
- Syringomyelia
- Parkinson's Disease
- Other rare neuropathies

Split hand atrophy can be a red flag



Flattening of the thenar surface

Zheng C, Zhu Y, Shao M, et al.. Neurophysiol Clin. 2019 Nov;49(5):391-404. doi: 10.1016/j.neucli.2019.09.001.

Head Shoulders, Knees and Toes: Neurological Presentations and Serious Mimics

Pearls For Practice

Numb Hand - Is It Always Carpal Tunnel Syndrome?

What does “numb” mean?

Dig in and find out what the patient means (i.e. “I can’t use it”, “It doesn’t do what I tell it”, “numb”, “tingling”, “burning”, “decreased sensation”). Don’t assume “numb” means sensory change!

What are the required exams?

- Focused motor exam of the hand: okay thumb sign, try to break thumb on finger (index, pinky)
- Testing - more motor functional decline - check cranial nerve screen too
- Motor examination - upper and lower extremities
- Reflexes
- Sensory examination - compare side to side, you are looking for significant differences
- Coordination and Gait - watch balance and gait, with numb hand, is hand slowed? Do they have tremor? On finger to nose, are they accurate in their movements?
- Neurological examination - look at head, neck do they appear normal? Any speech swallowing changes, look for spasticity, picking up or moving the arm - does it have spasticity, split hand atrophy and fasciculations (with weakness) can be worrisome. Look at reflexes
- Brisk reflexes isolated with weakness and fasciculations are worrisome for ALS.

Things to include in your referral to get your patient triaged appropriately

- In addition to consult question (eg “r/o carpal tunnel”)
- **Explicitly state**
 - Weakness
 - Sensory symptoms or signs
 - Upper motor neuron signs
 - Muscle wasting
 - Bowel or bladder symptoms
 - Speech /swallowing difficulty
 - Progression of any of the above

The **Provincial Carpal Tunnel Syndrome (CTS) Primary Care Clinical Pathway** is live on [Alberta’s Pathway Hub](#).

- The provider resource can be found under the tabs for Plastic Surgery, New Pathways (last 3 months), and soon, under Orthopedics.
- The patient pathway “**Your journey with Carpal Tunnel Syndrome (Carpal Tunnel Syndrome Patient Pathway)**”, is also available on [MyHealth Alberta](#).



Daniel Fok, FRCPC, CSCN (EMG): daniel.fok@albertahealthservices.ca

Wendy Johnston, MD, FRCPC, ABEM: wendy.johnston@ahs.ca



Consider using [MyL3Plan](#), a free online tool developed by the Office of Lifelong Learning (L3) that can be used to meet and support the 3 activities/action plans required by the PPIP-CPSA and earn up to 36 Mainpro+ certified credits. by completing the following cycles:

- Practice-driven quality improvement using objective data (CQI)
- Personal Development (PD)
- Standards of Practice Quality Improvement (SOP).

[Learn more here!](#)