

# Recognizing Hypothenar Hammer Syndrome

Are your fingers white,  
painful, numb, sensitive  
to touch and to cold?  
**See your doctor  
right away!**



# Recognizing Hypothenar Hammer Syndrome

This prevention pamphlet is for **workers who use portable vibrating tools or certain manual tools**, and for employers and the occupational health and safety committees in their organizations.

Please display the enclosed poster in your workplace (page 7)



## Source

A. Turcot, M. Dumitrescu, M. Fortier, P. Marcotte, V. Bernier, *Vibrations mains-bras – Caractérisation du syndrome du marteau hypothénarien chez les travailleurs utilisant des outils manuels*, report R-862, Institut de recherche Robert-Sauvé en santé et en sécurité du travail, Montréal, 2015, 134 pages.

## Comments

Do you have any comments or suggestions about this pamphlet? Contact [webmestre@irsst.qc.ca](mailto:webmestre@irsst.qc.ca)

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# Hypothenar Hammer Syndrome A Great Unknown

Hypothenar Hammer Syndrome is an insidious disease that can be easily confused with others that also cause the fingers to blanch. Two other diseases sharing that symptom are hand-arm vibration syndrome (another occupational disease) and Raynaud's disease (which is hereditary).



Although it is rare, single or repetitive trauma to the palm of the hand may lead to the occurrence of the syndrome.

## Are You at Risk?

Workers may develop hypothenar hammer syndrome in the following situations:



When using percussive tools that cause **vibrations in the palm** of the hand



When using tools that are **gripped tightly in the palm** of the hand



When using their hands to **pound, twist, tighten or push**

## Definition

Hypothenar hammer syndrome is an injury of the ulnar artery that reduces blood supply to the fingers, especially the third, fourth and fifth fingers (see illustration).

This rare traumatic injury may occur when workers repetitively use the heel of their hand as a hammer to pound and flatten or to press or twist objects. In some cases, a single acute episode in which the palm of the hand was used as a hammer can cause the syndrome. The use of vibrating tools, or tools that exert pressure on or repetitively strike the palm can also cause the disease.



## High-risk Activities and Tools

Factory workers, machinists, metal workers, construction workers, miners, mechanics, forestry workers, gardeners, landscapers, farmers, and students in training for these occupations are those who are most likely to be affected by hypthenar hammer syndrome.

The **occupational activities** that cause trauma in the hand, repetitively or from a single event, and that could lead to this syndrome include the following:



Among the **tools** that contribute to the appearance of hypthenar hammer syndrome are electrical or pneumatic vibrating tools, brush cutters/trimmers, milling machines, grinding machines, jackhammers and saws, hammers, wrenches, pliers, scissors and presses of every kind.



## Your Hand Is Not a Hammer

Never use the palm of your hand as a hammer to strike a tool or an object, and don't use excessive force to grip objects such as impact wrenches, pliers, scissors, presses of every kind, or gearshifts.



## The Importance of Consulting a Health Professional

Workers will often see a doctor only after feeling intense pain in their hands or fingers after acute trauma, or if their fingers have turned white. Unfortunately, months, even years can go by before the first symptoms appear and workers think they need to seek medical care.

So that the problem can be accurately and rapidly diagnosed, it is essential to let your doctor know what types of work and tasks you do. That makes it possible for her or him to ask you the right questions about your symptoms and to prescribe the appropriate tests.

Afterward, you can file a claim with the Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST).



## Above All, Prevention Is Key

There is no cure for hypothenar hammer syndrome, so it is much better to prevent it from occurring in the first place. The following are some recommendations for employers, workers, supervisors and health and safety committees.

- Suggest and encourage work methods that will avert acute or repetitive trauma.
- Switch tasks regularly or rest your hands.
- To make the job easier, use properly maintained tools that are adapted to the task.

### DON'T WAIT!

It's in your best interest to consult a physician as soon as you notice symptoms, or if you suspect something is wrong. Be sure to explain the type of work you do and the tools you use. You could even show the doctor a copy of this poster to ask if you have hypothenar hammer syndrome.

# Recognizing Hypothenar Hammer Syndrome



## Are you at risk?

You could develop hypothenar hammer syndrome if you use:

- ▶ percussive tools that cause **vibrations** in your palm
- ▶ tools that you **grip tightly** in your palm
- ▶ your hands to **pound, twist, tighten** or **push**



## Be alert to the following symptoms:

- ▶ White or blue, stiff and painful fingers
- ▶ Hypersensitivity to cold
- ▶ Decrease in muscle strength in your hand
- ▶ A palpable mass in the palm of your hand
- ▶ Pins and needles or numbness in your fingers

**You have these symptoms?  
See your doctor right away!**

To learn more, consult prevention pamphlet RF-959 at [www.irsst.qc.ca](http://www.irsst.qc.ca)

## How do you prevent it?

- ▶ Avoid using the palm of your hand as a hammer to strike a tool or an object.
- ▶ Avoid using excessive force to grip objects such as impact wrenches, pliers, scissors, presses of every kind, or gearshifts.
- ▶ Use work methods to avoid acute or repetitive trauma.
- ▶ Switch tasks regularly or rest your hands.
- ▶ Use properly maintained tools that are adapted to the task.

