

## CARPAL TUNNEL SYNDROME

### Background

This case definition was developed by the Armed Forces Health Surveillance Center (AFHSC) for the purpose of epidemiological surveillance of a condition important to military-associated populations.

### Clinical Description

Carpal Tunnel Syndrome (CTS) is a pathologic condition involving compression of the median nerve as it passes through the wrist. Compression of the median nerve causes symptoms such as pain, numbness, weakness, and paresthesia in the hand and wrist. Pain may radiate up the arm.<sup>1</sup> Causes of CTS involve many factors including congenital predisposition, injury or trauma, specific endocrine conditions, repetitive movements, awkward positioning, and repeated use of vibrating machinery.<sup>2</sup>

### Case Definition and Incidence Rules

For surveillance purposes, a case of carpal tunnel syndrome is defined as:

- *Two outpatient medical encounters* with a defining diagnosis of carpal tunnel syndrome (see ICD9 and ICD10 code lists below), with the diagnosis appearing *at least once* in the *primary* diagnostic position.

#### *Incidence rules:*

For individuals who meet the case definition:

- The incidence date is considered the date of the first outpatient medical encounter that includes a defining diagnosis of carpal tunnel syndrome.
- An individual is considered an incident case only *once per lifetime*.

#### *Exclusions:*

- None

<sup>1</sup> National Institute of Neurological Disorders and Stroke. See: [http://www.ninds.nih.gov/disorders/carpal\\_tunnel/carpal\\_tunnel.htm](http://www.ninds.nih.gov/disorders/carpal_tunnel/carpal_tunnel.htm); assessed July 2015.

<sup>2</sup> Silverstein BA, Fine LJ, Armstrong TJ. Occupational factors and carpal tunnel syndrome. *Am J Ind Med.* 1987; 11:343-58.



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**Codes**


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The following ICD9 and ICD10 codes are included in the case definition:

Condition	ICD-10-CM Codes	ICD-9-CM Codes
Carpal Tunnel Syndrome	G56.0 (carpal tunnel syndrome)	354.0 (carpal tunnel syndrome)
	- G56.00 (carpal tunnel syndrome, <i>unspecified</i> upper limb)	
	- G56.01 (carpal tunnel syndrome, <i>right</i> upper limb)	
	- G56.02 (carpal tunnel syndrome, <i>left</i> upper limb)	

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**Development and Revisions**


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- In July of 2015 the case definition was updated to include ICD10 codes.
- This case definition was developed in July of 2011 by a preventive medicine resident for a MSMR article on carpal tunnel syndrome.<sup>3</sup>

*Case Definition and Incidence Rule Rationale*

- To increase specificity ICD10 code descriptions include laterality. Investigators wishing to ascertain and distinguish incident left diagnoses or procedures from those on the right may want to consider an incidence rule that specifies *one event per side per lifetime*. The *once per lifetime* incidence rule used in this case definition is based on the ICD9 coding system and will be reevaluated when ICD10 data is available.

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**Reports**


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None

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**Review**


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Jul 2015	Case definition reviewed and updated by the AFHSC Surveillance Methods and Standards (SMS) working group.
Sep 2011	Case definition reviewed and adopted by the Surveillance Methods and Standards (SMS) working group.
Jul 2011	Case definition developed and reviewed by AFHSC MSMR staff.

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**Comments**


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None

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<sup>3</sup> Armed Forces Health Surveillance Center. Carpal Tunnel Syndrome, Active Component, U.S. Armed Forces, 2000-2010. *Medical Surveillance Monthly Report (MSMR)*. 2011 Jul; Vol 18(7): 12-15.

