

Superior Canal Dehiscence

Authors: Melissa S. Bloom, PT, DPT and Sara MacDowell, PT, DPT

FACT SHEET



Vestibular Rehabilitation
Special Interest Group



What is Superior Canal Dehiscence (SCD)?

SCD is a syndrome caused by an abnormal opening of the bone on top of the superior canal of the inner ear. The opening lets sound and pressure changes influence the inner ear. This means that you may have vertigo or imbalance around loud noises or when performing an activity that causes a pressure change inside of the ear. Other symptoms may include hearing your own body sounds such as hearing your heartbeat, loud footsteps, or even movement of your eyes. The following activities may bring on symptoms: lifting (every day items or weights), straining, bending over, popping ears, nose blowing, air travel, elevators, scuba diving, loud noises, coughing, and sneezing.

How is a Diagnosis Made?

Your ENT will take a history of your symptoms and then likely will complete a hearing test (audiogram). More specialized testing, called a VEMP, as well as tests that change the pressure in your ears may be performed in the office as well. You may be sent out for a CT scan and possibly an MRI to get an image of the ear.

What is the Treatment for SCD?

SCD will probably not heal by itself, so you will have two choices: surgery or avoiding the activities that make you dizzy. Avoiding certain activities can be a good option, unless you are debilitated by your symptoms. In that case, surgical plugging of the canal may decrease or get rid of your symptoms. Medicine can reduce symptoms; however this is usually not as helpful. Special ear plugs may also help with your symptoms. You should talk with your physician about medical and surgical options available to you.

How can Physical Therapy (PT) Help?

Since SCD is caused by a bone problem, PT cannot heal SCD, or stop the associated dizziness and vertigo. PT can improve your balance, unsteadiness, and difficulties with walking. A physical therapist can also advise you about ways to avoid activities that bring on your vertigo and dizziness. If you do have a canal plugging surgery, then PT may be useful to help address possible dizziness or imbalance following the surgery.

References:

Chilvers G, McKay-Davies I. Recent advances in superior semicircular canal dehiscence syndrome. *J Laryngol Otol.* 2015 Mar; 129(3):217-25.

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1111 North Fairfax Street
Alexandria, VA 22314-1488
Phone: 800-999-2782,
Ext 3237
Fax: 703-706-8578
Email: neuropt@apta.org
www.neuropt.org