



Weill Cornell Medicine

Neurological Surgery

Cervical Collar Trial for Suspected Cranio-Cervical Instability

What is a collar trial?

The collar trial is used as a way to closely mimic the stability afforded by cranio-cervical instrumentation and fusion surgery which aligns and stabilizes the cervical spine to the skull by wearing a rigid brace on your neck.

Why a collar trial?

Cranio-cervical instrumentation and fusion surgery may be recommended for patients for whom instability caused by connective tissue disease or spinal trauma has resulting in clinical symptoms such as head, neck or upper back pain, neurologic symptoms from compression of cranial nerves or symptoms from compression of the brainstem. The goal of the trial, when recommended, is first to assess which symptoms may improve with the collar. This can give both your surgeon some framework for setting up realistic expectations for what symptoms may improve with surgery, and you, the patient, an idea of what the reduction in mobility feels like and whether your improvement in symptoms is worth the emotional and physical cost of going through surgery and recovery for that symptom resolution.

How does it work?

- The collar we typically prescribe is the Miami J collar because it accurately mimics the occipito-cervical fusion while also providing a good deal of adjustability and cushioning for comfort. Some patients prefer the Aspen collar which is also acceptable. Soft collars or poorly fitted hard collars are unacceptable for the purposes of this trial, though some patients may find that these improve symptoms occasionally.
- You will need a prescription for the collar and have it fitted by an orthotist to ensure adequate fit in which the orthotist will balance stability with comfort.
- In order for a collar trial to provide maximal benefit to the patient and medical team, we strongly recommend that a diary of symptoms is created and logged at least once a day:
 - For the week prior to initiating the trial, write down all of the symptoms you experience (headaches, numbness, etc.) and rate each symptom from 1-10 with “1” being mild pain and “10” being severe pain.
 - Every evening rate each symptom on the same “1-10” scale for the entire day.
- **Collar Instructions**
 - The collar should be worn for a minimum of 6 weeks to recreate the experience and benefits of fusion, which will be permanent, without the surgery! The trial tries to address symptoms that may have been present for years, therefore a few days of immobilization may not result in the optimal trial outcome and cause a “false negative,”



Weill Cornell Medicine

Neurological Surgery

- where we may believe the trial was unsuccessful simply because the collar was not worn enough, was poorly fitted, or discontinued prematurely.
- Collar should be worn 23 out of 24 hours in the day including while you are sleeping, but we do not recommend that you wear the collar in the shower unless you have a second “wet/dirty” collar that can be swapped out.

Caveats and realistic expectations

The collar trial is simply our preferred method of assessing the degree of instability that may be present while offering a chance for patients to feel for themselves what that stability might afford them in terms of symptom relief and also the limitations it may create in their motion. Neither is completely accurate and this test is not a guarantee that surgery will exactly re-create the outcome of the trial. Deciding whether or not to pursue a crano-cervical fusion is a very complicated decision and the collar trial is one part of that decision making process between you, your family, and your entire health care team.

Other options

Invasive cervical traction through the application of Gardner-Wells tongs.

Some physicians advocate traction – the direct pulling on the skull with a weights and pulley system to use as a clinical tool in deciding if crano-cervical fusion surgery may be beneficial. A clinical and physical response to the application of increasing amounts cervical traction is performed while in the hospital. This is a surgical procedure performed under light anesthesia. The advantages of this are that the results can be translated into the operating room, where the traction may be incorporated into the final positioning of the skull prior to tightening the fusion construct. The disadvantages include that this requires anesthesia, is a comparatively short test, and does not take into account the patient experience of being ambulatory and functional while in a cervical collar. There are advantages and disadvantages of both, which should be discussed with your surgeon.

Local Orthotics Location:

Eschen Prosthetics & Orthotics Labs locations at:

Main Office: 510 East 73rd Street, Suite 201A, New York, NY 10021

Phone Number: 212 606 1262

Hospital for Special Surgery: 535 East 70th Street, Room 2W-159, New York, NY 10021

Phone Number: 212 606-1662.

Directions: Take elevators to 2nd floor. Turn left and to the end of the corridor (there will be a sign on the wall saying “Virginia F. and William R. Salomon Rehabilitations Center.” Make left and in about 20 yards on your left, you will see the sign saying 2W- 159 Prosthetics & Orthotics.

Find an orthotics provider closer to home:

Visit The American Board for Certification of Orthotics · Prosthetics · Pedorthics:

<https://www.abcop.org/> and look for an orthotics provider in the directory