



Protocol for Pneumatic Cervical Traction

Excerpted and condensed from Chapter 25, Spinal Traction techniques section of the Sixth Edition of Downer's Physical Therapy Procedures

Therapeutic Modalities

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Cervical Traction Contraindications

Uncontrolled hypotension or hypertension
Positive Vertebral Artery Insufficiency Test
Spinal fusion or laminectomy
Recent abdominal surgery, Hiatal hernia
Active infection/malignancy, Skin lesions
Acute spine pain or strain/sprain
Joint hypermobility, severe osteoporosis
Claustrophobia, Pregnancy

Cervical Traction Indications

Pain/Muscle spasm, spasticity
Decreased ranged of motion
Sub acute or chronic strains and sprains
Tissue healing
Herniated Nucleus Pulposus (HNP)
Degenerative joint an/or disc disease
Zygapophyseal facet joint dysfunction

Cervical Traction Goals

Distract vertebral bodies
Distract and/or glide facet joints
Stretch spinal muscles and soft tissue
Widen the intervertebral foramen
Increase tissue extensibility
Increase relaxation/sedation

Consideration for Traction Treatment

- A. Stage of the injury
 1. Acute: within 24 to 48 hrs after injury
 2. Subacute: within 2 to 48 days after injury
 3. Chronic: longer than 14 days after injury

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Desired treatment goals may be one or more of the following:

1. Promote healing
2. Decrease pain
3. Decrease swelling
4. Increase range of motion
5. Increase strength
6. Increase function

Appropriate modality choice is based on the following:

1. Consider all contraindications for treatment modalities and past medical history first, in order to safely and effectively prescribe treatment.
2. Through objective and subjective evaluation, determine what modalities would be appropriate given the stage of healing and desired goal of treatment.
3. Evaluate the advantages and disadvantages of the modality you have deemed appropriate and safe at this point.
4. Know the treatment parameters for this modality and consider the length of treatment.
5. Finally, consider third-party payment for the modality you have selected. It's become a recent occurrence that a modality if utilized in excess, is frequently denied payment.
 - a. If you know this in advance, advise the client that insurance may not cover the full cost of treatment, even though you have determined it to be the most effective. This is part of INFORMED CONSENT.
 - b. Many states have adopted "Optimal Recovery Guidelines" (ORGs) that place limits on the number of modality treatments given in a particular diagnosis. Numerous third-party insurance companies have adopted these as well. Please become familiar with these guidelines in order to avoid any nasty surprises on bills to your clients.

Central Procedure Code (CPT) for Pneumatic Cervical Traction is 97122 or 97012

- A. This code is necessary to receive third-party payment for treatment.

Preparations for Pneumatic Cervical Traction Treatment

A. Select the type of traction to be used:

1. Dynamic traction is continuous traction applied while the patient is actively performing neck exercises.



2. Static traction is applied continuously without pauses, for a specified time, which can be from several minutes to 20 minutes in duration.

B. Check the equipment

1. Ensure the integrity of pneumatic pump and air bladder.

C. Have all the materials ready to use:

1. For pneumatic traction it is very important:
 - a. That unit is properly disinfected BEFORE each use.
 - b. The patient is provided a comfortable surface to lay supine on.
 - c. Earrings and/or glasses are removed.

Pneumatic Cervical Traction Treatment Considerations

A. Specific Contraindications:

1. Follow all traction contraindications previously mentioned.

B. Advantages of Pneumatic Spinal Traction:

1. Relative ability to perform independently for home use. Non-threatening. Does not affect the temporomandibular joint.

C. General Pneumatic Spinal Traction Treatment Parameters

1. Herniated Nucleus Pulposus (HNP):
 - a. 5 to 10 minutes
 - b. Intermittent parameters: 60 seconds on and 20 seconds off.
 - c. 30 pounds of pull is optimal.
 - d. 20 to 30 degrees of cervical flexion.
2. DJD/DDD:
 - a. 10 to 15 minutes.
 - b. Intermittent parameters: 20 on, 10 second off.
 - c. 30 pounds of pull is optimal.
 - d. 20 to 30 degrees of cervical flexion.
3. Facet Joint Dysfunction:
 - a. 10 to 20 minutes.
 - b. Intermittent parameters: 20 seconds on, ten seconds off.
 - c. 30 pounds of pull is optimal.



- d. 20 to 30 degrees of cervical flexion.
4. Muscle Spasms:
- a. 5 to 15 minutes.
 - b. Intermittent parameters: 60 seconds on, 20 seconds off. (Static pull may be used at lesser weight if tolerated by the patient.)
 - c. 30 to 45 pounds of pull is optimal.
 - d. 20 to 30 degrees of cervical flexion.
5. NEVER exceed 45 pounds of traction pull on the cervical spine.
6. If treating the Atlanto-Occipital (A-O) joint and Atlanto-Axial (A-A) joint, do NOT exceed 10 pounds of traction pull on the cervical spine.
- a. If treating the A-O and A-A joints, place the neck in zero degrees of relative flexion.

Pneumatic Cervical Traction Technique

1. This technique is primarily performed in the supine position, which makes it ideal for the patient who has difficulty relaxing during traction.
2. It is also ideal for home use, as the unit is very portable.
3. Static force applications as well as intermittent traction are equally effective with this unit.
4. Note: It is difficult to exceed the 45 pound traction force with pneumatic devices but not impossible.
5. Treatment times range from 15 to 30 minutes.

Starting Pneumatic Cervical Traction Treatment

- A. The patient should be relaxed as possible when the traction is applied.
1. If patient is not relaxed, muscle guarding may narrow the joint spaces in the cervical area thereby negating the treatment.
 2. In addition, any pain caused by the traction can in turn cause the patient to tighten up more.
 3. Be conservative in using traction. Use CAUTION.
- B. Explain the procedure to the patient:
1. Describe what you are going to do.
 2. Explain why the treatment is being done.



3. Show the traction unit to the patient:
 - a. Indicate where pressure points will be.
 - b. Mention that the unit will fit snugly, but will be comfortable.
4. Inform the patient what he/she should feel. And indicate the location of these sensations.
 - a. The sensation should be gentle pull.
 - b. Most of the pressure/pulling will be on the back (occiput) of the head, none on the throat.
5. Explain the type of traction (intermittent or a continuous pull) you will use.
6. Describe any exercises you want the patient to do.

C. Ask the patient to tell you IMMEDIATELY if he/she feels:

1. Any increased pain in the neck or upper back.
2. Any radiating pain down one or both upper extremities.
3. Any dizziness.
4. Numbness in hand or fingers.
5. Temporomandibular joint pain.

D. If the patient wears glasses or earrings, ask that they be removed. Put them in a safe place or have patients put them in a pocket. Wigs or hairpieces may have to be removed, but keep the patient's hair as neat as possible.

Completing Pneumatic Cervical Traction Treatment

- A. Release the traction VERY slowly and smoothly.
- B. Before the patient gets up, check him/her for dizziness, light headedness, headache, arm pain, nausea, numbness in hands or fingers. Etc.
 1. If any of the above occurs, NEVER let the patient leave the area until checked by a physician.
 2. If an outpatient, be sure he/she will be able to drive home safely.
- C. Return belongings to patient.
- D. Dispose of any paddings or hygienic coverings.
- E. Record the following on the patient's record:



1. Approximate poundage or strength of pull.
2. If intermittent traction was used record time intervals between each pull.
3. Total time/number of pulls.
4. The number and description of exercises performed.
5. Any adverse reactions and what was done in response.

Home use of Cervical Traction

A. Pneumatic traction apparatus may be rented or purchased.

B. The patient should be asked to bring it the next time he/she comes for treatment, so you can show how it is used at home.

C. Give the patient detailed and written instructions:

1. Explain how much traction to apply.
 - a. EMPHASIZE that the pull and let-up of traction should ALWAYS be slow, gentle and smooth.
 - b. The pull should NEVER cause dizziness.
 - c. Tell the patient how long to maintain traction, how long the pauses should be, and how many times a day to use traction.
 - d. Tell the patient NEVER to let anyone else use the traction unit.
 - e. List any dangers.

For protocol for manual cervical traction as well as for pneumatic cervical traction, please see the complete Chapter 25 of the Sixth Edition of Downer's Physical Therapy Procedures, Therapeutic Modalities by R. Eric Oestmann, Ph.D., M.S., PT