

CONNECTICUT VALLEY HOSPITAL

Physical Therapy Services

PT Equipment Procedure # 19

Re: Traction Protocol

Date: March 20, 2000

Revised: October 19, 2008

Description:

Treatment table with unit that applies pull (traction) at varying weights in order to separate vertebrae. Traction is a treatment for back or neck pain. It is the treatment of choice for a small nuclear protrusion.

Traction has three beneficial effects:

1. **Suction:** A sub-atmospheric pressure occurs between the vertebrae and induces a centripetal effect on the contents.
2. **Distraction:** Increases the distance between the articular edges.
3. **Ligamentous Tightening:** The posterior longitudinal ligament tightens which then exerts centripetal force on a central protrusion.

Indications:

1. Nuclear Protrusion: i.e. patient reports pain to occur after 24-48 hours.
2. Upper lumbar disc lesions.
3. Lower thoracic disc lesions.

Contraindications:

1. Displacement of fragment of annulus.
2. Lumbago – severe pain on movement.
3. Compromised: Patient with gross emphysema, heart disease, a thoracoplasty or any severe respiratory disorder may not be able to stand the band around the thorax.
4. Elderly patients: Since the nucleus disappears and is replaced by cartilage between the ages of fifty and sixty, elderly patients cannot have a nuclear protrusion.
5. Sciatica with deformity: With gross lumbar deformity in a case of sciatica shows that traction will fail.

Procedure:

Frequency: Once initiated, traction should be given two to three times per week.

Patient Education: Is the most important aspect of the program. All sessions should follow with body mechanics education and postural exercises to educate the patient to avoid reoccurrence.

Patient Position: The patient lies supine or prone whichever in due course proves effective. “A useful guide is: the position that the patient finds most comfortable in bed.”

Technique: The belts should be applied smoothly and firmly with the minimum amount of adjustment of the patient’s position. The traction should be applied slowly and the treatment should last ½ hour.

The pull should be the maximum that the patient can tolerate but **MUST NEVER INCREASE THE PAIN**. Patients should be instructed to report discomfort to the therapist at once.

Traction should be sustained to be effective since it becomes effective only after two minutes of continuous tension since it takes this long for the muscles to relax. Gradually increase the tension in 10-minute increments. The amount of traction is based on the patient’s tolerance, so the therapist must be available to consult with the patient. The poundage should be gradually decreased during the last 10 minutes of treatment to allow the segment to decompress.

The patient should be asked to remain on the table for 5 minutes after traction to allow his vertebrae time to fully decompress. Reinforce the use of good body mechanics when the patient arises.

If no improvement is seen in the first week, traction may not be effective and other therapies can be pursued. If the patient is greatly improved, then a second and third week of treatment can be justified.

Please consult the attached guide for treatment position suggestions.

Clean traction machine as per Physical Therapy Cleaning Procedure.

Each traction machine receives Biomedical Testing annually in January of each year.