Working in an orthopedic physiotherapy clinic we frequently see patients come in with neck and low back pain. Sometimes this pain is not only localized centrally in the neck or back, but can refer peripherally into the arm and hands or legs and feet. Also, weakness in an extremity related to the neck or back can be present. This is when we should also consider any spinal nerve root and peripheral nerve       irritation or compression associated with a potential spinal disc injury or joint dysfunction. One very effective treatment when carefully selected for by your physiotherapist is spinal traction.

Spinal traction is a treatment technique that applies a longitudinal force to stretch and decompress the vertebral joints and soft tissues around the spine. Spinal traction is most commonly used on the cervical and lumbar spines, but can also be applied to the thoracic spine as well. Traction is applied with a specific grade of force or weight, and for a specific duration according to the signs and symptoms of the condition. For instance, traction can be applied from a range of a few seconds up to 30 minutes, depending on what is needed. The force or weight used is usually relatively low and feels quite comfortable to the patient.

Traction can be applied by 2 types of methods:

1) Manual traction by the physiotherapist - This is where the therapist uses his or her hands to apply the traction force to the spinal joints.

2) Mechanical Traction by a traction or decompression machine - This method of traction is often used when a specific force and a longer duration of traction is needed.

Spinal traction can have several effects. For instance, traction can help:

* Decrease compression forces and help distract vertebral bodies. It can help mobilize the facet joints in the spine. This can also increase the (intervertebral) space where the spinal nerves exit out of the spine and help decrease irritation of these nerves
* Enhance nourishment of the disc and nerve
* Decrease muscle spasm
* Stretch the muscles and connective tissues along the spine
* Increase circulation
* Decrease the sensitivity and pain in the joints of the spine
* Spinal elongation and the flattening of curvature in the spin

Some conditions in the spine that it may help with include:

* Nerve pain and weakness down the arm and legs from disc and nerve injuries; radiculopathies
* Advanced degenerative changes in the spine, stenosis
* Biomechanical joint stiffness in the spine

It is important to be carefully assessed by your physiotherapist to determine how appropriate spinal traction is in your case. This is dependent on your signs and symptoms, the acuity of your injury and stage of healing, your past and current medical history, and your response to previous treatment. When carefully and appropriately selected for by you and your physiotherapist, spinal traction is an effective treatment choice.