

The Arizona Quarterly Spine SpineScottsdale Physical Therapy Newsletter *2011 Fall Edition!*

A note from Shane

I recently attended a physical therapy course titled: The Saunders Approach to Spinal Traction. Founded by the world-renowned physical therapist H. Duane Saunders, The Saunders Group is a leading supplier of back supports and home traction devices to physical therapists, chiropractors, professional athletes, athletic trainers, physicians, retail outlets, and back pain sufferers. I would like to share with you the distinguishing features and benefits of both cervical and lumbar traction I learned at the course that are provided at SpineScottsdale Physical Therapy.



Effects of Spinal Traction

1. Separates the vertebrae: It creates a space and suction force.
2. Distracts the facet joints: It creates motion and pressure changes.
3. Widens the foramen: It creates more room for the nerve root.
4. Stretches the muscles: It relaxes tight muscles.

Goals of Spinal Traction

1. It relieves pain by decompressing nerves.
2. It improves overall nutrition by improving blood flow.
3. It stimulates joint fluid production.
4. It increases range of motion by unlocking facets and stretching tight tissues.

What are in indications for traction: "If motion is indicated traction is indicated"

1. **Degenerative Disc or Joint Disease:** Asymptomatic patients in whom degenerative changes or osteophytes have been present for time may have a sudden onset of symptoms related to a certain activity or position. The traction may separate or realign the segment in such a way as to relieve the irritation.
2. **Joint Hypomobility:** Chronic patients with degenerative disc of joint disease and generalized hypomobility will benefit from traction.
3. **Facet Impingement:** When facet joint become restricted, due to impingement or capsular tightness, manual mobilization techniques are often used to free the restrictions. Manual techniques that isolate the individual joints are sometimes the best techniques. However, traction is another treatment option, particularly if the patient cannot tolerate manual techniques because of increased pain.
4. **Muscle spasm:** Both traction and stretching can relieve muscle spasms. Traction offers the added benefit of decompressing painful joint structures. If the pain is relieved by traction, muscle spasm will be relieved as a result of relaxation of nociceptive reflexes.
5. **Herniated Disc and Radiculopathy:** Several articles report favorable results using traction to treat herniated disc and radiculopathy, including recent affirmation of the benefits of using traction with an extension-oriented treatment approach in patients with nerve root compression.

Lumbar Spine

How much force is recommended for lumbar traction?

There is a consensus in the literature that a force of 40% -50% of the patient's body weight is necessary to cause vertebral separation.

“Is there a group of patients with low back pain likely to benefit from traction?”

Fritz et al. (2007). Is there a group of patients with low back pain likely to benefit from traction. Spine Volume 32, Number 26, 2007

- Single blind randomized clinical trial
- 64 subjects with nerve root compression
- Saunders herniated disc protocol

Results:

- All subjects had significantly improved disability and fear avoidance scores.
- Subjects whose symptoms peripheralized with extension experienced more functional improvement compared to the control group.
- Traction is effective for this subgroup of patients

What are common treatment guidelines for lumbar traction?

Disorder	Goals	Mode	Force	Time	Frequency
Herniated Disc Syndrome	Relieve nerve compression Relieve pain	Static	40-60% of ideal body weight	8-12 minutes	1-4 times daily
Degenerative Disc Disease	Stimulate nutrition Improve Spinal Function Reduce nerve compression	Intermittent 25% of force at rest	40-60% of ideal body weight	10-20 minutes	1-2 times daily
Degenerative Joint Disease	Stimulate nutrition Improve spinal function Reduce nerve compression	Intermittent 25% force at rest	40-60% of ideal body weight	10-20 minutes	1-2 times daily
Joint Fixation, Facet Impingement	Unlock facet joint Increase ROM Relieve pain	Static	40-60% of ideal body weight	10-15 minutes	1-2 times daily
Poor Posture	Posture correction Increase ROM Relieve pain	Static	40-60% of ideal body weight	10-15 minutes	1-2 times daily
Soft Tissue Tightness	Increase ROM Relieve pain	Static	40-60% of ideal body weight	10-15 minutes	1-2 times daily

Cervical Spine

What is the optimal angle for cervical traction?

The optimal angle of pull is 15 degrees for nearly every clinical indication.

How much force should be used for cervical traction?

Saunders has found that 25-40 lbs of force for the mid and lower cervical spine is often clinically effective in conditions where a separation of the intervertebral space is desirable.

What are common treatment guidelines for cervical traction?

Disorder	Goals	Mode	Force	Time	Frequency
Herniated Disc Syndrome	Reduce Nerve Compression Relieve pain	Static	20-30 lbs female 25-40 lbs male	8-12 minutes	1-4 times daily
Degenerative Disc Disease	Stimulate Nutrition Improve spinal function Reduce nerve compression	Intermittent 25% force at rest	20-25 lbs female 30-35 lbs male	10-20 minutes	1-2 times daily
Deenerative Joint Disease	Stimulate Nutrition Improve spinal function Reduce nerve compression	Intermittent 25% force at rest	20-25 lbs female 30-35 lbs male	10-20 minutes	1-2 times daily
Cervical Headache	Reduce muscle tension Relieve neck and head pain	Static	20-25 lbs female 30-35 lbs male	10-15 minutes	1-2 times daily
Joint Fixation, Facet Impingement	Unlock facet joint Increase ROM Relieve pain	Static	20-25 lbs female 30-35 lbs male	10-15 minutes	1-2 times daily
Poor Posture	Posture correction Increase ROM Relieve pain	Static	20-25 lbs female 30-35 lbs male	10-15 minutes	1-2 times daily
Soft Tissue Stiffness	Increase ROM Relieve pain	Static	20-25 lbs female 30-35 lbs male	10-15 minutes	1-2 times daily
Chronic Whiplash Syndrome	Increase ROM Relieve pain	Static	20-25 lbs female 30-35 lbs male	10-15 minutes	1-2 times daily

Using the Internet

SpineScottsdale is now using the internet to connect with the community. We are on Facebook, Twitter, Posterous, and Yelp! You can learn more about these internet sites below:



Facebook: Are you a fan?

Perhaps you have heard of this social networking site that is gaining popularity...FACEBOOK. Well, SpineScottsdale has decided to be a part of the trend. You can find a link at our website, www.spinescottsdale.com, to become a fan. You can post comments, view pictures, read articles, and tell your friends.



Twitter: Providing your patients tips on how to keep your spine healthy

Every day, millions of people use Twitter to create, discover and share ideas with others. Now, SpineScottsdale is turning to Twitter as an effective way to provide your patients and members of the community tips on how to keep your spine healthy.

You can find a link to our Twitter page at: www.spinescottsdale.com



Posterous: Evidence-based blog designed for health care professionals

Too busy to keep up with all the spine related research? I will be posting a weekly blog discussing the most recent evidence-based material on spine related issues. You can view this blog by going to: spinescottsdale.posterous.com



Yelp: The purpose of YELP is to connect people with great local businesses.

1. Yelp was founded in 2004 to help people find great local businesses.
2. As of May 2010, more than 32 million people visited Yelp in the past 30 days.
3. Yelpers have written over 11 million local reviews.
4. Your patients will be able to review SpineScottsdale Physical Therapy at www.yelp.com

What your patients are saying?

“I want to express how satisfied I am with Shane’s care and treatment protocols. He has demonstrated an innate ability to provide the most effective rehabilitation program while having a genuine concern for my well being. I am feeling almost 100% in less than a month from seeing Shane.”

-George

“Shane is fantastic. Not only did he correct my immediate problem of lower back pain, he has taught me how to be proactive in maintaining back health. I highly recommend him.”

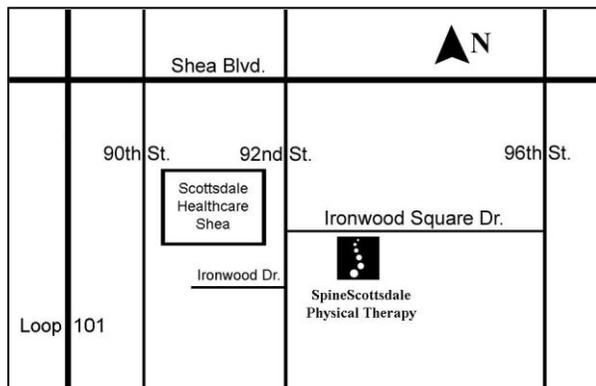
-Denise

“This has been a great experience and the results have been outstanding. Thank you for giving me my mobility back and relieving my pain. I would recommend Shane without exception!

-Stephanie

“I have been coming here for a few months. I could hardly stand when my therapy started and had major pain in both legs and lower back. Within a short time the pain in my legs is gone and the back feels great. Everyone on staff is friendly and makes it a fun time. I have been to other doctors for physical therapy and Shane and the staff has helped more than anywhere else.

-Jason



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