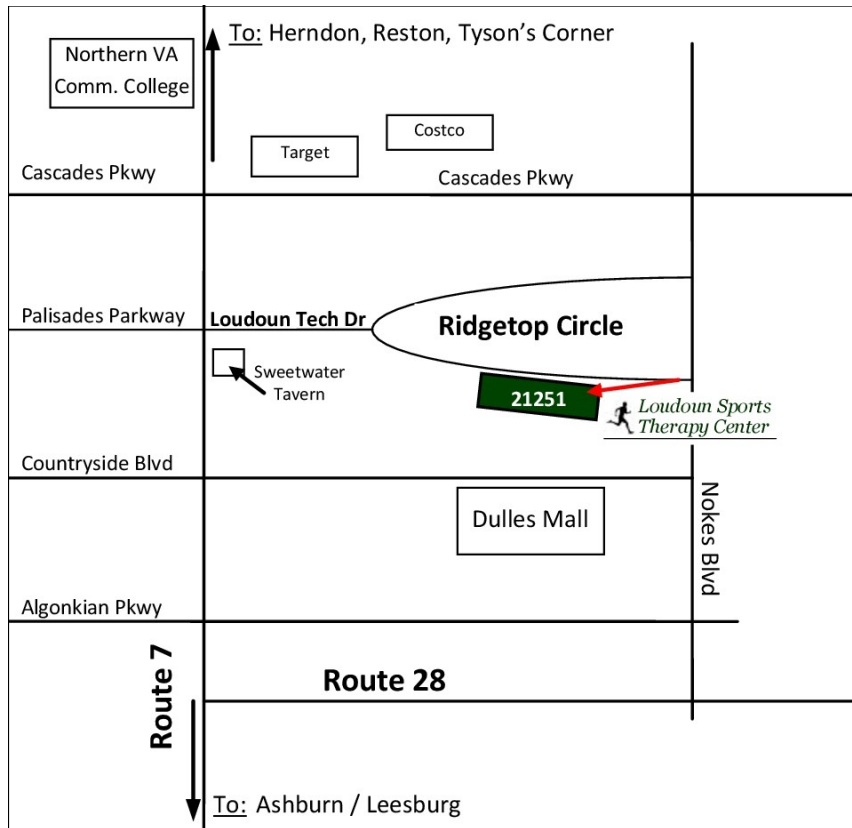
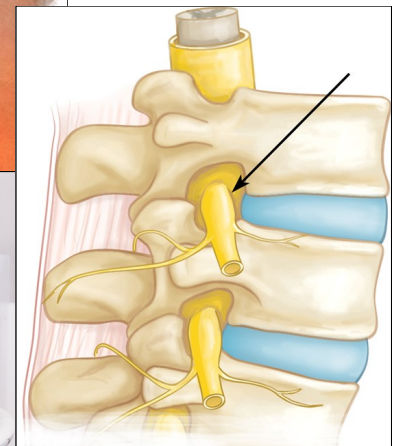
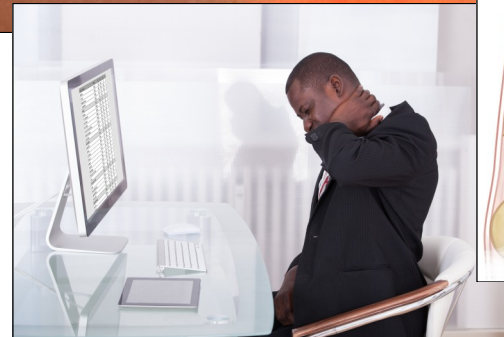


Neck Pain & the Cervical Spine



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**A closer look at the neck and how it works.
 Read on for a breakdown of common
 neck problems and how to handle them.**



At Loudoun Sports Therapy Center, we are specialists in treating all orthopedic conditions and injuries.

It's our goal to help you live a healthy, active, pain-free lifestyle. We want to help you achieve your goals.

Our main focus is on you, the patient, and the goals you need to achieve to return to active, pain-free living. We will work with you and provide personalized, individualized care based on your symptoms. This care will include manual, hands-on treatment, exercises and a home exercise program. Lastly, we ensure that all patients are educated on their condition and provided with injury prevention techniques to avoid a reoccurrence of your symptoms.

Our team consists of physical therapists, physical therapist assistants, and athletic trainers so you receive the highest quality of expertise, care, and patient education throughout your plan of care. All of our clinicians have a professional degree and a license to practice physical therapy. We do not use any unlicensed staff in our patient care.

While patient care is our main focus, we also believe it is very important to give back to the community. Throughout the year, we hold workshops to educate our patients and the community on ways they can improve their health and overall quality of life. **You can find a schedule of our events by going to www.LoudounSportsTherapy.com/event.** We also support several organizations in Loudoun County such as Irene's Prom Closet, Toys for Tots, and local food banks. It's very important to our mission as a local business to help those in need and we love that there are so many wonderful organizations with which to be involved that allow us to give back to the community.



"I came to Loudoun Sports Therapy Center with neck stiffness and shoulder pain. After 13 sessions, I am pain-free and my stiffness is gone! I am back to yoga and I can carry my 8-month-old baby. I learned exercises to strengthen my neck and shoulder muscles and how to correct my posture. Thank you for everything.
~Anuja S.

Pain is not something you should have to live with or push through. The highly trained clinical staff at [Loudoun Sports Therapy Center](http://www.loudounsportstherapy.com) will help you identify and address your pain.

After a full one-on-one evaluation, they will design an individualized plan of care to you achieve goals that matter to your daily lifestyle.

If you have pain, DON'T WAIT!
Call [Loudoun Sports Therapy Center](http://www.loudounsportstherapy.com) TODAY and start your journey to PAIN-FREE LIVING!

703-450-4300

www.loudounsportstherapy.com



Wishing you the best - today and always,
The LSTC Team

Patient Testimonials



"I started physical therapy after I picked up a 35-lb baby and strained my neck and trap. I couldn't pick up babies, do laundry, sleep on my right side or reach to put my seatbelt on. After just seven sessions, I'm already 100% better. The therapists have worked with me on progressing my home exercises and I am now able to do the activities that I couldn't before because of the pain. You guys are the best!

~Ashley W.

"When I first started treatment at Loudoun Sports Therapy Center, I was experiencing pain in my neck and upper back. Now, after my last session, I can say pain has greatly decreased. Thank you Loudoun Sports Therapy Center.

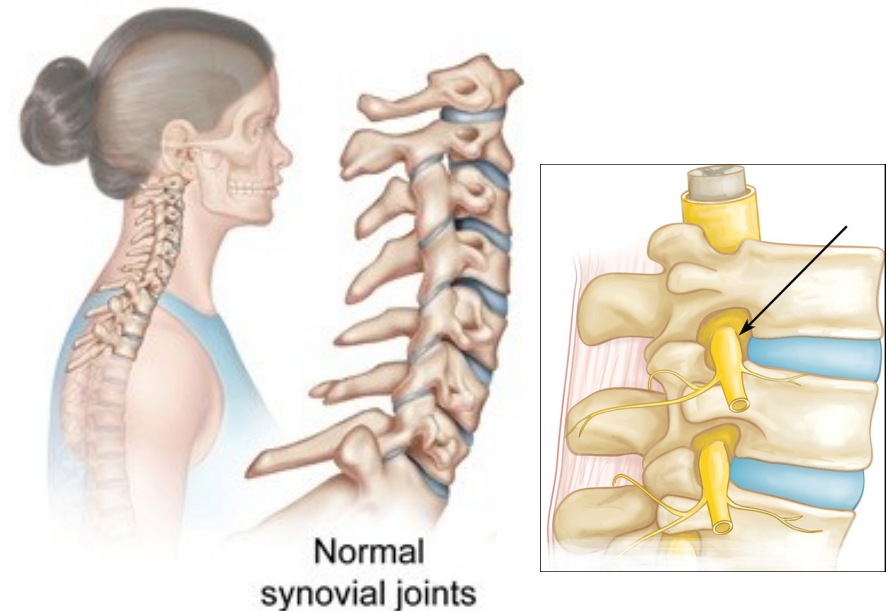
~David G.



"I had a great experience at Loudoun Sports Therapy Center. The staff is wonderful and they really helped me relieve this neck pain I've been dealing with for two years. I am now able to enjoy everyday activities without neck tightness and I don't wake up with tensions headaches anymore! I haven't gotten a headache since I started. I am very happy with the results after coming to LSTC.

~Sydney K.

A Closer Look at the Neck and Cervical Spine



Your neck is part of your spine, the cervical spine to be exact, which is made up of seven bones called vertebrae. Think of these bones like rocks that sit on top of each other in a very specific fashion. The job of the cervical spine is to hold your neck and head up and allow you to move your neck and head around. In order for the cervical spine to do this, these vertebra must sit on top of each other properly so they form what looks like the letter 'C'.

In between each of these vertebrae is what's called a disc. We'll learn more about these discs shortly but know that these discs have two main jobs: create a space in between each vertebrae and provide cushioning between each vertebrae. These discs absorb shock when you move around.

Your cervical spine also includes ligaments, muscles, nerves and facets, which are the joints between the vertebrae.



Neck problems are often associated with irritation of the nerves and muscles surrounding the neck, which is why it's important to understand the structures in and around the neck.

All the muscles in your neck originate from the base of your skull and they run along the following pathways:

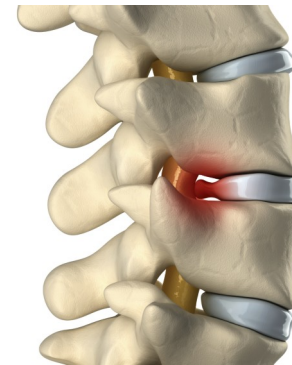
1. To the vertebrae, or bones, in your cervical spine
2. Alongside these vertebrae in your neck
3. Alongside these vertebrae and to your shoulder blade

There are a few muscle groups to focus on when we're talking about the neck and how it moves:

- **Trapezius muscles help raise the head and shrug the shoulders**
- **Sternocleidomastoid muscles help turn the head**
- **Levator scapulae muscles help control movement of the shoulder blades**

Arthritis can happen in any joint. While you cannot reverse the effects of arthritis, the resulting pain and impacts can be managed very easily with the proper treatment, which will keep it from progressing.

When arthritis is present in the cervical spine, it means that the space in between the bones in your neck is decreasing and in some cases, the bones may even start to rub against each other. A key part of a plan of care for a patient with arthritis in their neck is hands-on therapy. Through this manual technique, a physical therapist will safely and properly increase the space between the vertebrae so these bones are no longer rubbing against one another. This will not only decrease any swelling and inflammation caused by the arthritis, but it will also improve your range of motion.



Hands-on therapy is also very effective in treating problems with the discs in the neck as a physical therapist is trained to correct the alignment of the spine by adjusting the bones in the neck. This will help to increase the space between the bones in cervical spine so that your mobility improves and your pain decreases.

Targeting strengthening exercises will also ensure that the muscles surrounding the bones are strong enough to stabilize your neck as well as help your neck hold the weight of your head without pain or problems. This involves exercises and stretches to strengthen the postural muscles too.

All of this will help to reduce the pressure that is being put on the bones and discs in your cervical spine contributing to your pain, weakness, headaches and any other symptoms.

How PT Addresses Neck Pain & Problems

Physical therapy is a proven effective and conservative treatment option to address neck conditions. The majority of neck problems can be resolved with physical therapy without the need for surgery, prescription medications or painful injections. **DID YOU KNOW that Virginia is a Direct Access State? That means you do NOT need a prescription from a doctor to get physical therapy.**

At Loudoun Sports Therapy Center, we design a plan of care specific to each individual's neck problem and symptoms. A key component of every patient's plan of care is hands-on, manual mobilization. This manual therapy increases the space between the vertebrae alleviating any subsequent pressure and will also fix any alignment issues in the cervical spine. Additionally, manual therapy addresses all the issues with the muscles and their inability to do their jobs efficiently.

Your plan of care will also include targeted strengthening exercises and stretching. These are geared specifically to YOUR neck problem and help improve function, range of motion, increase strength and improve spinal stability. These exercises will also strengthen the postural muscles so you are able to stand and move properly thus reducing pain and relieving headaches.

All of these components will open up the space in between the vertebrae, reduce tightness in the muscles, pressure on the spinal structures, and reduce pain.



Common Neck Problems: Pain & Stiffness



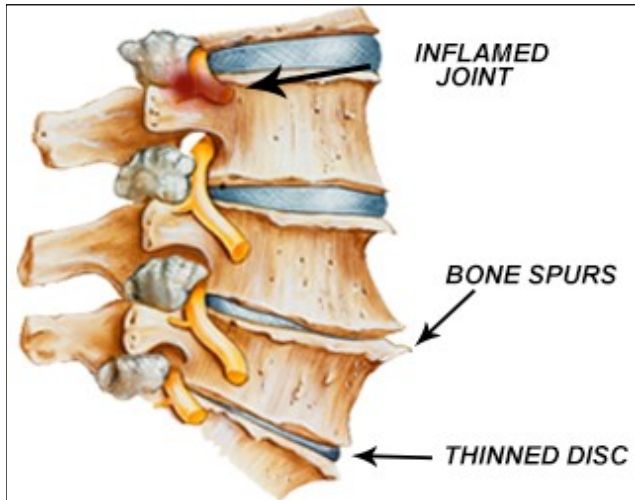
What is that 'crick' in my neck? Neck pain and stiffness are common issues these days and typically start because of the following:

- Stress that leads to muscle tightness
- Postural changes particularly as our lifestyles cause us to spend more time in front of computers, sit behind the wheel in traffic or look down at our phones.

Both of these cause the muscles in our necks to get tighter and shorter increasing pressure through the vertebrae or bones in our neck. If neck pain and stiffness isn't handled right away, it can lead to problems in the cervical discs, headaches and even radiating pain down the body.

Common complaints from people with neck problems include:

- Difficulty turning their head to change lanes when driving
- Difficulty sleeping
- Headaches
- Difficulty standing up straight because of pain
- Reduced range of motion impacting activities such as the ability to work, read or even do tasks around the house.



We use our neck muscles and joints thousands of times everyday. Overtime, this wear and tear can lead to bony changes in the joints and the bones (vertebrae) in our necks.

The bones or vertebrae in our necks are separated by discs. These cushiony substances enable the bones to slide and glide over one another, which allows us to turn our heads when we need to change lanes while driving, nod our heads up and down when agreeing to something or look up to grab a coffee mug off the top shelf. When arthritis is present, the space these discs provide in between the vertebrae starts to thin out and the bones can actually start to rub against each other. As you can imagine, this can cause chronic pain, stiffness and limit the range of motion in the neck. As the bones continue to rub against each other rather than gliding over the soft discs, it can lead to bony protrusions called bone spurs.

These arthritis changes can be accelerated when we sustain some kind of injury to our neck or if we consistently have poor posture.

If you've been told that you have arthritis in your neck you may have also heard the term, 'cervical stenosis.' There are small holes along the cervical spine that nerves exit through. Stenosis is when these holes narrow putting pressure on the nerves and therefore pain and/or radiating symptoms down into the arms or legs.

Circle the answer that best applies to you and use the score scale below

How intense is your neck pain or problem?

1. I don't have problems now, but I've had pain or difficulty in the past year.
2. My pain is mild and I usually ignore it.
3. My pain is moderate and definitely noticeable.
4. I have severe pain or problems with activities.

Do you have problems sleeping because of neck pain?

1. I don't have problems now, but I've had pain or difficulty in the past year.
2. My pain is mild and I usually ignore it.
3. My pain is moderate and definitely noticeable.
4. I have severe pain or problems with activities.

Do you have difficulty turning your head?

1. I don't have problems now, but I've had pain or difficulty in the past year.
2. My pain is mild and I usually ignore it.
3. My pain is moderate and definitely noticeable.
4. I have severe pain or problems with activities.

Do you get recurring headaches?

1. I don't have problems now, but I've had pain or difficulty in the past year.
2. My pain is mild and I usually ignore it.
3. My pain is moderate and definitely noticeable.
4. I have severe pain or problems with activities.

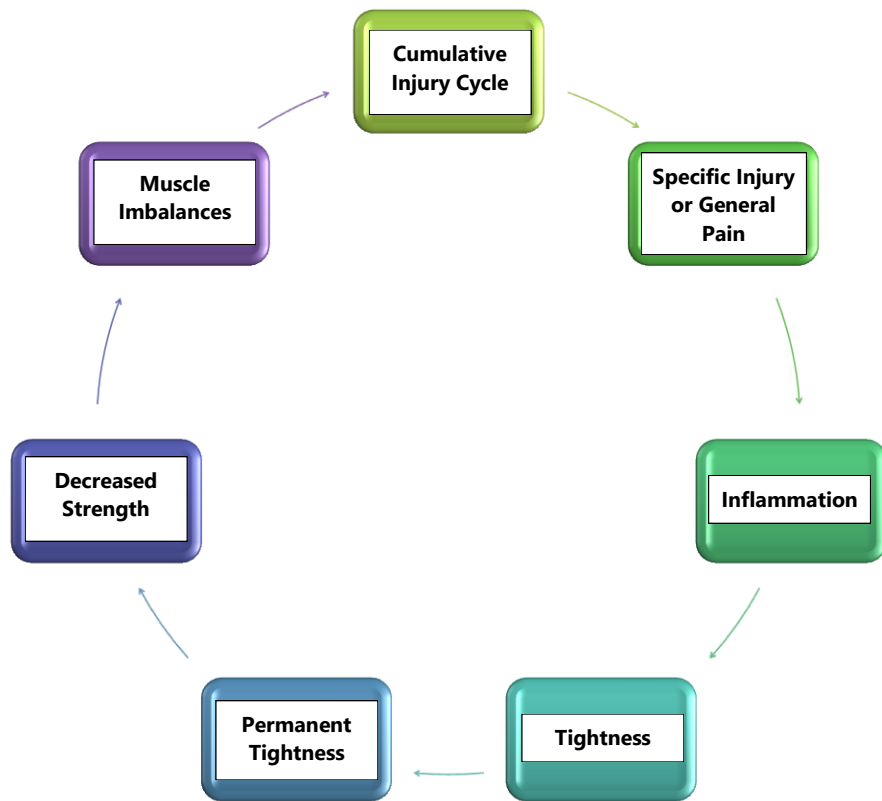
Does pain limit your ability to do activities such as exercise, travel dressing, bathing, etc.?

1. I don't have problems now, but I've had pain or difficulty in the past year.
2. My pain is mild and I usually ignore it.
3. My pain is moderate and definitely noticeable.
4. I have severe pain or problems with activities.

HOW DID YOU SCORE?

- 1-5— I have a few minor aches and problems and I need to know how to address these issues so they don't get worse. Please help me.
- 6-12— My pain or problem is impacting my daily activities. I need some help to address these problems and get back to living life pain-free. Please help me.
- 13-20— I have severe pain very often. It's impacting my ability to travel, exercise, do chores and other daily activities. I know these issues will only get worse if I don't make some changes. Please help me.

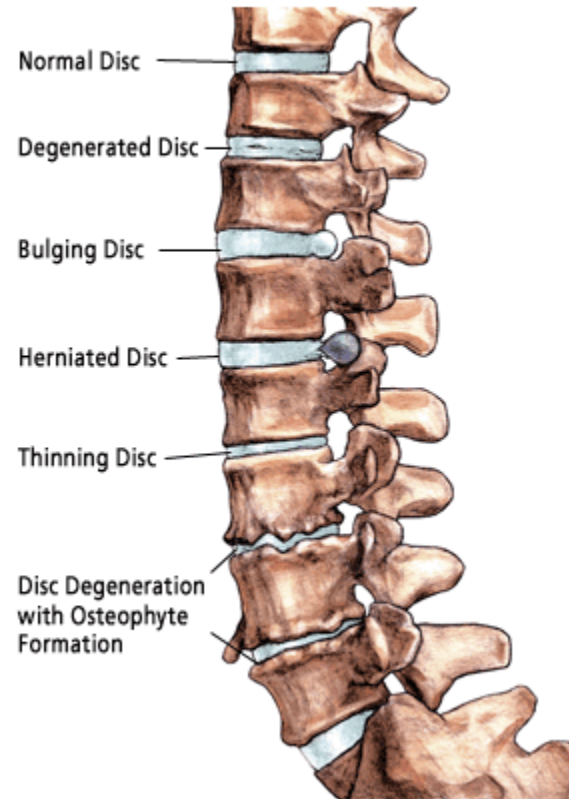
Handle your neck pain FOR GOOD! Continue reading for how to address these common neck problems so they no longer impact your daily living.



What is the Cumulative Cycle of Injury?

This cycle starts when you sustain an injury from a specific event or start to experience pain. That injury or general pain leads to inflammation and/or muscle tightness. If those last for more than 24 hours, then adhesions or tightness in the tissues become permanent. By permanent, we mean they don't fully heal and they won't heal on their own. This causes decreased strength, which leads to muscle imbalances. Injured muscles can't fully regain their strength. This is the cumulative cycle, meaning it's easier for you to sustain an injury again because you have never fully healed and the process repeats itself. **This cycle can easily occur in the neck and cervical spine, which is why it's so important to handle a neck problem right away.**

Examples of Disc Problems



Just like the bones or vertebrae in our backs, the bones in our necks are separated by discs. These discs are filled with fluid and provide space in between each vertebrae so the bones can move smoothly over one another giving us the range of motion we need in our necks. As we age, these disc 'dry out' and lose height causing the bones to come closer together. This leads to increased pressure causing the disc to start to bulge out, which puts pressure on the nerves in your cervical spine. This is called a bulging disc. As

the pressure on that disc continues to increase, it can get to the point where the fluid actually 'leaks' out of the disc. This is what's called a herniated disc. Regardless of whether a disc is just starting to degenerate, or bulge or totally ruptures, it needs to be handled properly.

Cervical disc issues can cause the following symptoms:

- Neck pain
- Radiating pain down into your arms, hands or shoulder blades
- Tingling or numbness down your arm
- Associated muscle weakness caused by nerve compression

Why Neck Problems Can Cause Headaches?



The most common type of headache is one that comes from external pressure, meaning something is actually pressing on the outside of your skull, causing it to press on the brain and therefore cause the headache. So how does this relate to your neck? Most frequently, that initial pressure starts because the muscles in your neck are tight, weak, injured, stressed, etc. This irritation of these neck muscles causes them to not only get knotted up and create some of those trigger points or knots you might be familiar with, but it also causes a series of problems:

Neck muscles get irritated → neck muscles pull on the base of the skull → causing pulling on the muscles surrounding the skull → causes inward pressure on the brain → cause a headache.

Until the tightness in the neck muscles is properly treated, they stay in a more permanent state of tightness and pressure. This is why a headache goes away for a day or two and then comes back. Just like all the muscles in your body, muscles in your neck and skull are like rubber bands. If they are not treated properly, they will gradually shorten overtime. So it's very common for someone experiencing headaches to have small but damaging knots and areas of tightness in the muscles in their neck, shoulder blades, shoulders and the skull. And while these muscles may relax for a short period of time after you take aspirin or get a massage, they have not returned to their 'normal' state. Therefore, they continue to get caught in this cycle of re-injury, pressure and recurring headaches.

Neck Pain & Poor Posture



We cannot discuss neck pain and problems without talking about posture. As a society, we spend lots of time sitting at computers for work or school or looking down at our phones to text, send emails or scroll through social media. When we're not using the muscles in

and around our necks properly to maintain good posture, this puts abnormal stress on our neck muscles. So what causes us to actually start sitting, standing, moving with poor posture? Poor posture often develops from weakness in some key muscle groups, your scapular muscles. These are the muscles that surround the shoulder blades and help you to sit up straight:

1. **Middle trapezius**
2. **Lower Trapezius**
3. **Rhomboids**



When these muscles are weak, we tend to sit or stand with our backs rounded and shoulder slouched forward. This forward head posture only exacerbates the muscle weakness. Someone with poor posture will most likely complain of neck and upper back pain as well as headaches because the muscles in the neck and at the base of the skull are extremely weak and therefore tight. A physical therapist can help you strengthen these postural muscles and also alleviate the tightness in these neck muscles so that there is a balance of strength. This will enable you to stand, sit and move with proper posture so that you are not as risk for neck problems.