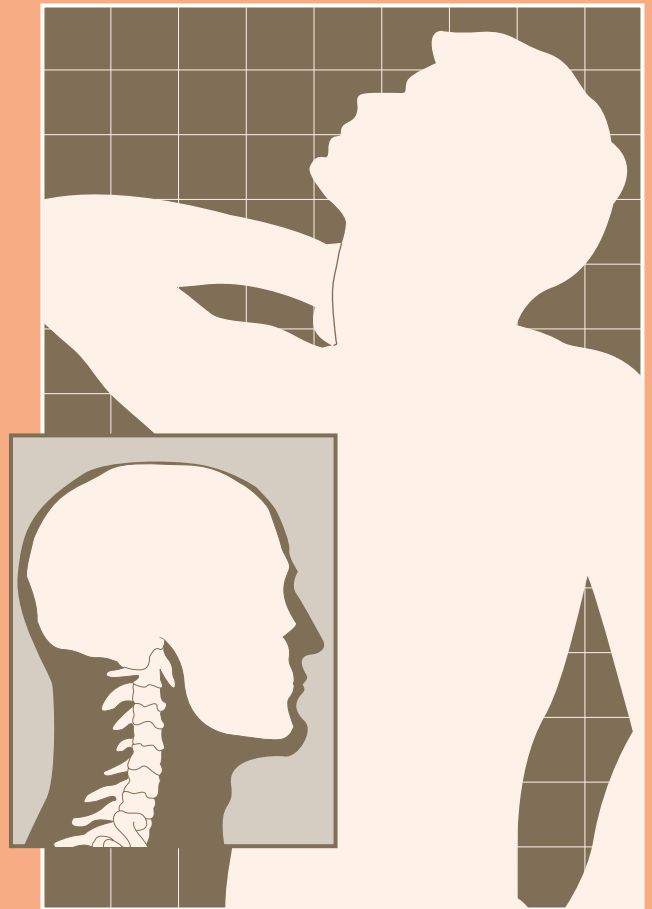


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*What You Need To Know About*  
***NECK PAIN***

*A Physical Therapist's Perspective*



*American Physical Therapy Association*

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# *What You Need To Know About Neck Pain*

**Y**our head and neck region is vulnerable to many different stresses. Bad posture can cause misalignment of your neck, head, and spine. Car accidents can cause whiplash. Age and wear and tear can cause arthritis. Even activities such as gum chewing and reading in bed can cause pain. How do we avoid these potential problems? And if we can't avoid them, how can we recover as quickly as possible?

In this booklet you will learn about:

- The basic anatomy of the neck region;
- Common reasons for neck pain and headaches;
- Ways to reduce stress and the risk of injury;
- Exercises to do at home; and
- How a physical therapist can help.

Whatever the nature of your problem, physical therapy by a licensed physical therapist can often help you recover function quickly and teach you new habits to minimize the risk of further pain or injury.

## *Anatomy Of The Neck Region*

**O**ne of the most flexible regions of the spine is the neck (cervical) region, which consists of vertebrae, seven shock-absorbing discs, muscles, and vertebral ligaments to hold them in place. The uppermost cervical disc connects the top of the spinal column to the base of the skull. The spinal cord, which sends nerve impulses to every part of

the body, runs through a canal in the the cervical vertebrae and continues all the way down the spine. The cervical nerves spread down into the arms; because of this, arm pain is sometimes traceable to a problem in the neck.

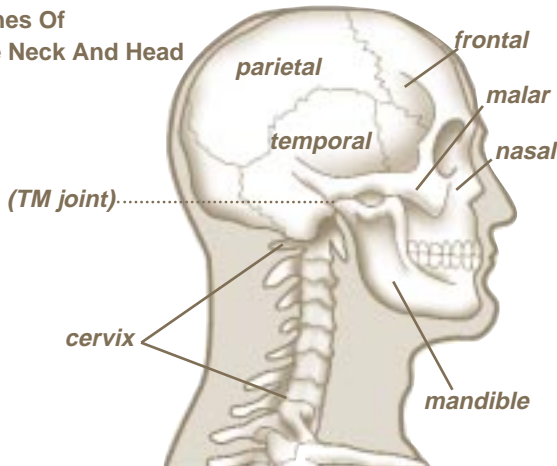
### **Possible Causes Of Neck Pain And Headaches**

One of the most common causes of neck pain, and sometimes headaches, is poor posture. It's easy to get into bad posture habits without even realizing it—even an activity as “innocent” as reading in bed can ultimately lead to pain, headaches, and more serious problems.

The basic rule is simple: Keep your neck in a “neutral” position whenever possible. In other words, don't bend or hunch your neck forward for long periods. Also, try not to sit in one position for a long time. If you must sit for an extended period, make sure your posture is good: Keep your head in a neutral position, make sure your back is supported, keep your knees slightly lower than your hips, and rest your arms if possible.

Reading in bed can cause neck strain—especially if you're propped up on several pillows, bending your neck forward, and trying to hold your arms out

#### **Bones Of The Neck And Head**



#### **Reading In Bed**

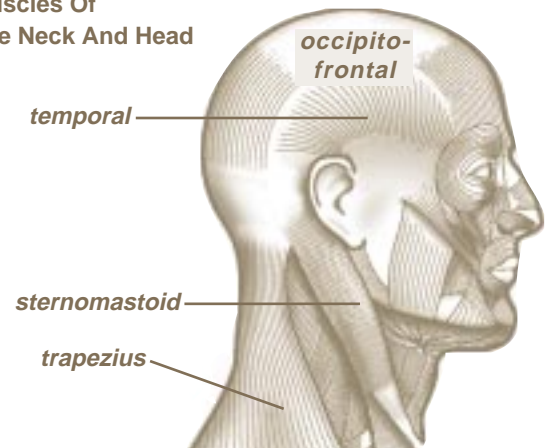
*A wedge-shaped pillow or a portable “mini-desk” can help reduce neck strain by supporting your arms and helping you keep your neck in a neutral position.*



in order to support the book. If you do read in bed, make it easy on your neck: Consider purchasing one of the products specifically designed for this purpose, such as a wedge pillow to prop up the book or a portable “mini desk.” Finally, remember not to stay in any single position too long—our bodies are designed to move.

Your sleeping position is another possible source of neck problems. Does your pillow cause you to sleep with your neck at an angle, either too high or too low? If so, you may want to invest in a new pillow. Feather pillows are generally preferable to foam; they conform easily to the shape of the neck.

#### **Muscles Of The Neck And Head**



Also, remember that pillows don't last forever. After a year or so feather pillows tend to "collapse" and may need to be replaced. In addition, a bed that doesn't offer enough back support can also be a source of neck discomfort.

Here are some other tips to help you avoid neck strain and pain:

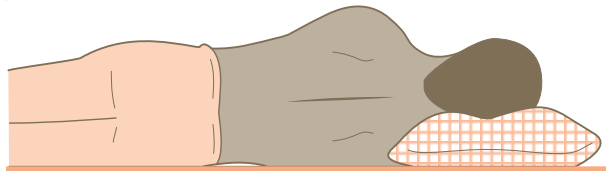
- Try doing stretching exercises before bed and first thing in the morning;
- Don't sleep on your stomach—this position puts great pressure on the neck; and
- Don't "over-pillow" your neck; keep your neck and spine in a neutral position.

The neutral position rule also holds true for people who spend time working at computer terminals. Again, don't bend your neck forward. Adjust your desk, monitor, and chair to a comfortable height, so that the monitor is at eye level and your knees are slightly lower than your hips. Some people find that a footstool helps in attaining this correct position. Sit close enough to the monitor so that you don't have to bend forward in order to see well. Use the chair's armrests—your arms need support. Wear your eyeglasses if necessary. Consult your physical therapist to find the set-up that is right for you.

### Sleeping Postion



*The correct pillow should keep your spine straight and your neck in a "neutral" position.*



### At Your Workstation



You should also follow the neutral position rule when driving a car. Adjust the seat to bring you close enough to the pedals so that you don't have to extend your neck forward.

### Proper Lifting Technique

**A**nother cause of neck pain is poor lifting technique. People often think of the lower back as the area at risk, but the cervical region is nearly as vulnerable. Here is the correct way to lift:

- Stand up straight, close to the object;
- Bend at your hips and knees, keeping your back in the neutral position and your head and shoulders up;
- Firmly grasp the object and rise up with your hip and leg muscles;
- Keep the object close to your body. Your hips and legs absorb most of the weight, and you will put less strain on your back and neck.
- The feet should be positioned shoulder-width apart, with one foot slightly ahead of the other.

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In addition, you may find that placing one foot forward and one foot back may be easier than trying to lift an object from the “squatting” position.

### **Avoiding Neck Stress**

Other bad habits to avoid include:

- “Shopper’s tilt”—carrying items on one shoulder for a long period; and
- Carrying items that are too heavy.

“Shopper’s tilt” can be avoided by using a back pack-style bag to more evenly distribute the weight you’re carrying. (Be sure to wear the back pack correctly, with both arms through the shoulder loops, or the benefit will be lost.) A variation on “shopper’s tilt”—“traveler’s droop”—is a familiar experience to anyone who has ever tried to lug a heavy suitcase across an airline terminal. Again, a back pack can be helpful, or consider purchasing a compact “rolling suitcase” with wheels and a retractable handle.

Believe it or not, simply talking on the phone can create neck problems. Some people are in the habit of cradling the telephone receiver between the shoulder and the neck. Not only does this put

### **Lifting**

*Keep the object close to your “center of gravity” and use your legs and hips to lift—not your back and neck.*



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stress on the neck, but over a long period it can cause the cervical discs to place pressure on the nerves. If you spend a great deal of time on the phone, you might try one of the products designed to make it a more comfortable experience—neck cradles, speaker phones, or a “hands-free” headset.

### **TMJ Disorders**

**T**he TMJ—temporomandibular joint—is the joint at which the jaw is hinged to the skull. Painful TMJ problems occur in people who overuse or abuse this joint through teeth grinding, constant clenching and unclenching of the jaw, or excessive gum chewing. Sometimes people are born with a misalignment of the jaw that can bring on similar symptoms.

Because the neck and the TMJ are so closely connected, the TMJ can cause neck pain—and vice versa. In some cases a dentist may need to create an oral retainer to allow the joint to rest and let healing begin. After that, a physical therapist can help minimize the pain in the jaw or neck through a custom-designed exercise program.

### **Migraine Headaches**

**T** rue migraine headaches are most likely the result of problems affecting the blood vessels in the head, or of an allergic reaction. However, many other types of headaches can mimic migraines and are often misdiagnosed. Some of these originate in the neck or jaw, such as the TMJ disorders mentioned above.

If you don’t have all the symptoms of migraines—nausea, problems with vision, and pain—get a second opinion, particularly if the pain is triggered by motion of the neck. If you don’t have a true migraine, a physical therapist can help diagnose the actual source of the pain. Once an evaluation is

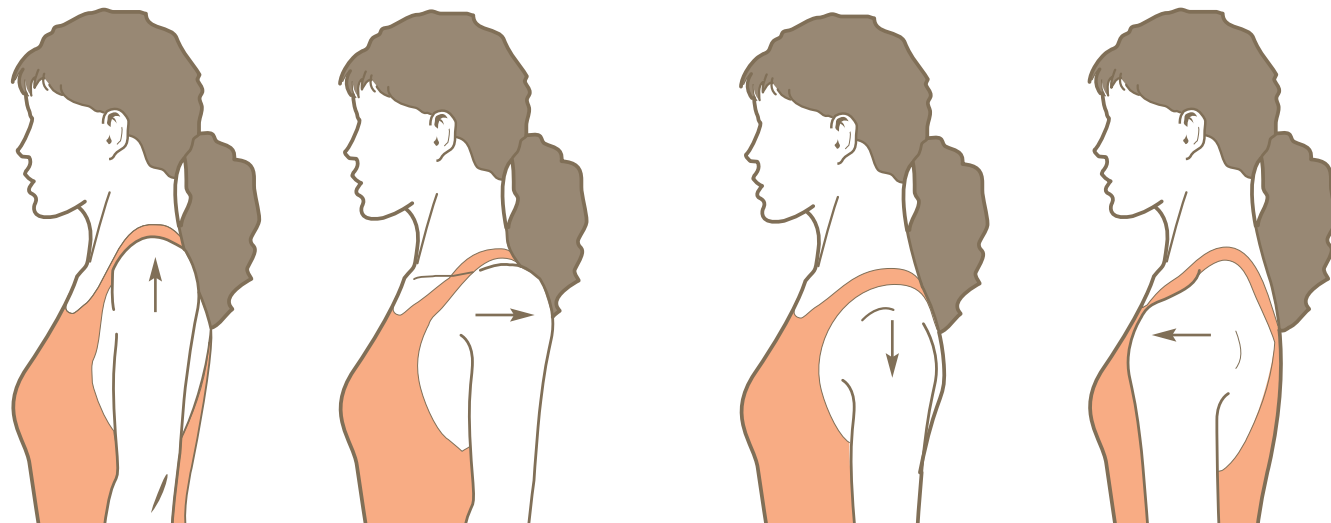
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made, your physical therapist will help you create a comfortable and appropriate home and work environment and will design a program of rest (if needed) and exercise. If the source of your headache is in the TMJ (jaw) area, your physical therapist may consult with your dentist who may create a special oral retainer in order to discourage “bad habits” such as teeth grinding.

### **Other Kinds Of Headaches**

**M**ost people know from experience that emotional stress can cause headaches. These “simple” headaches can be treated in a variety of ways, from taking nonprescription pain relievers to practicing meditation. Most simple headaches will go away by themselves; however, if the headache is persistent or recurring, make sure that neck strain, poor posture, or eyestrain isn’t the culprit. If your headache is severe or persists for more than a few days, it is important to seek professional attention right away. Sometimes muscles in the back of the neck can irritate nerves in the head,

**Shoulder Roll Exercise** *Relax your arms and gently roll both shoulders in a circular motion. Feel the stretch as you move. Repeat 5-10 times.*



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causing a headache. If you are having headaches, a physical therapist will first make a careful evaluation of your problem (often in consultation with a physician). After pinpointing the problem, he or she will design a program of rest, exercise, stretching, and other treatments that are very effective in eliminating the cause of your headaches.

### **Osteoarthritis**

**O**steoarthritis is inflammation of the joints caused by wear and tear. All of us experience some degree of osteoarthritis as we grow older, but the condition can also be caused by injuries. Osteoarthritis in the neck is characterized by stiffness and limited range of motion.

Physical therapy can be a great help in treating osteoarthritis. Through exercise, stretching, massage, and other therapeutic techniques, the physical therapist can gently and slowly help the patient ease the stiffness and increase range of motion.

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## Whiplash

**W**hiplash—a violent back-and-forth motion of the neck—is probably the most common traumatic injury to the neck region. It is frequently associated with automobile accidents, although it occasionally occurs in other situations (such as skiing accidents or amusement park rides). In acute cases, a device known as a cervical collar may be appropriate in order to “rest” the neck and calm the inflammation. Once the tissue has been rested, a physical therapy program designed to regain strength, function, and range of motion can begin.

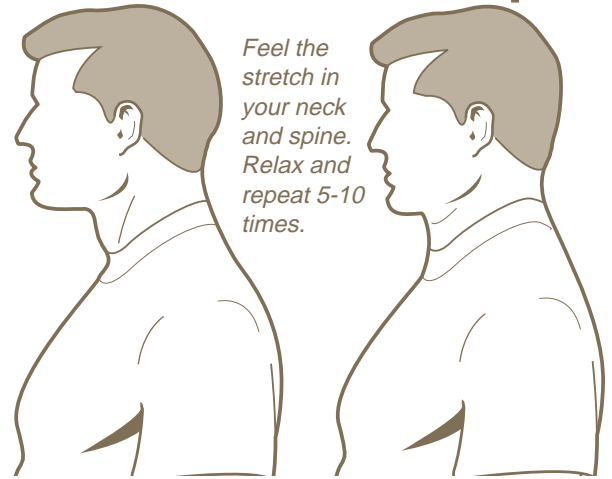
### Is It Only A “Pain In The Neck”?

**P**ain in the cervical region can cause arm pain as well as the “pain in the neck.” Why? In the case of the arms, it’s because the nerves that branch out from the neck go all the way down into the arms and into the hands. Sometimes it’s difficult to tell whether the pain is actually originating in the neck, or the arms, or both.

Symptoms in the arms include numbness, tingling, cold, aching, and “pins and needles.” These symptoms can be confused with carpal tunnel syndrome (CTS), a condition found in people who work at computer keyboards or perform other repetitive motion tasks for extended periods. In CTS, the nerve sheath that runs down the center of the forearm becomes inflamed and restricts the gliding movement of the nerve. It is possible, however, for a nerve impingement to start much further “up the chain,” in the neck region. It’s also possible for the nerve impingement to be taking place both in the neck and in the arm.

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**Standing Tall** Stand in a normal, relaxed posture, then pretend that a string is pulling you straight up from the top of your head.



### What To Do When Your Neck Is Hurting

**W**hen your neck hurts, and no major trauma is involved, rest is the first order of business. But don't stuff too many pillows under your neck—that will only make things worse. The goal is to keep your spine and neck in a *neutral* position. Make sure that the “gap” between the back of your neck and the bed is filled in by a pillow (or foam support) that keeps your neck in a neutral position.

You can also apply ice or heat. Many physical therapists prefer ice because of its effectiveness in reducing pain and inflammation. (To use ice, fill a plastic bag with crushed ice, place a towel over the affected area, then apply the ice-filled bag to the area.) Heat also provides relief to some people, but should be used with caution because it can sometimes make an inflamed area worse.

Apply heat or ice for 15-20 minutes at a time, and give yourself a 40-minute rest between applications. If you use both heat and ice, make sure to alternate between the two.

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## How Physical Therapy Can Help With Neck Pain and Headaches

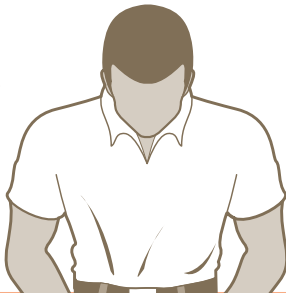
**P**hysical therapy always begins with a detailed history and evaluation of the problem. Your physical therapist will take many things into account, including your age, general health, occupation, and lifestyle. If major trauma or disease is involved, your physical therapist will work with you in consultation with a physician.

After a diagnosis has been made, your physical therapist may choose from a range of treatment options, including exercises for flexibility, strength, stability, and restoration of range of motion. Other options include ice, heat, electrical stimulation, traction or mobilization, and massage. Your physical therapist may also analyze your home and work environment in order to ensure that you're not re-injuring yourself.

Much evidence suggests that low-impact aerobic exercise such as swimming, walking, low-impact aerobics, and stationary bicycling may also be helpful in decreasing neck pain. A physical therapist can design a pain-free exercise program just for you.

Once your physical therapy goals are met, your physical therapist will help you continue therapy on your own with a home program designed to fit your needs. The goal of physical therapy is to return you to normal activity as quickly as possible, with the knowledge you need to minimize or eliminate your problem.

**Head Half-Rolls** Relax your arms at your sides and gently roll your head from left to right several times. Feel the stretch in your neck muscles. Relax and repeat 5-10 times.



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## Neck And Head Pain Questions And Answers

*1. Is arm pain, numbness, tingling, and weakness related to neck pain? Will I need surgery?*

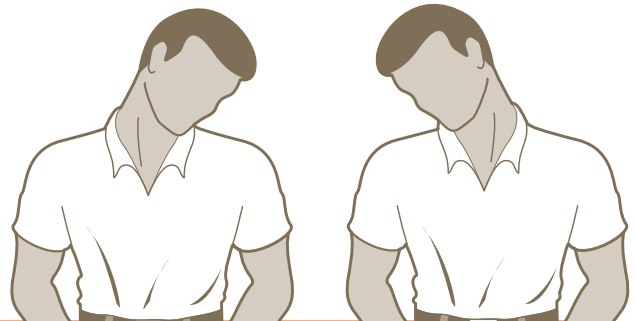
Because the nerves in the cervical region radiate down through the arms, these symptoms can sometimes be related to neck pain. While surgery is sometimes required to reduce pressure on the nerves, many cases can be treated effectively through physical therapy.

*2. Is surgery beneficial for chronic neck pain?*

Surgery may be the treatment of choice in isolated cases—for example, if you have a condition known as spinal stenosis (in which the openings for the nerve roots or spinal cord become smaller, often due to osteoarthritis). In most cases conservative treatment, including physical therapy and/or medication, is preferable.

*3. Is it alright to take medication such as aspirin for my neck pain and headache?*

Yes, although anti-inflammatories such as NSAIDs (non-steroidal anti-inflammatory drugs) or aspirin can cause stomach upset or ringing in the ears. Be aware that acetaminophen can help with pain but not inflammation. Consult your pharmacist about the medication you are taking. Do not take medication that is old or previously prescribed for someone else.





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#### *4. How long before I get better?*

The nature of your injury will determine how long it takes to heal. In general, recovery from neck sprains or strains can take anywhere from a few weeks to a few months, depending on the severity of the injury, your age and ability to heal, and other factors.

Your recovery will be faster if you follow the program designed by your physical therapist. Your program will probably include exercises and other treatments designed to ensure that the neck heals properly and regains its normal range of motion. Without proper treatment, prolonged stiffness and discomfort may result.

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#### ***About APTA***

**T**he American Physical Therapy Association is a national professional organization that represents more than 70,000 physical therapists, physical therapist assistants, and students throughout the United States.

Physical therapists are vital members of the multidisciplinary health care team. They provide treatment and can refer clients to other health care specialists. APTA serves its members and the public by promoting understanding of the physical therapist's increasing role in the health care system. APTA also promotes excellence in the field with advancements in physical therapy practice, research, and education.

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### ***Other APTA Brochures***

- Fitness: A Way Of Life
- For The Young At Heart: Exercise Tips For Seniors
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