Taking Care of Yourself

Be Your Own P.T.

NECK – ARM Pain

Over-use disorders & Tendonitis

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(This is prevention advice. If you already have a problem, have your physical therapist approve this information for you)

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NOTE…

The information in this book is strictly prevention and wellness advice. It is NOT treatment advice directed to any individual. If you already have a problem, you need expert advice that fits YOU. Consult your physician or physical therapist for advice that specifically fits you, based on a good examination. The Physical Therapist is a highly qualified and trained expert on this.

Consult a GOOD Physical Therapist to evaluate and teach you the RIGHT advice that fits YOUR problem.

ONE STARTING POINT… You are NOT your MRI !

How much degeneration do you have? How important is that degeneration? What is on your MRI ?

MRI's & x-rays often LIE… X-rays and MRI's are often NOT accurate! Degenerative changes on an MRI are very often NOT the source of pain! Several studies show that MOST adults with NO back pain have disc changes and arthritis... but NO PAIN. There are similar trends for shoulder pain, knee pain, neck pain. Many MRI findings are often NOT the source of your pain. X-rays and MRI's can be misleading, and can make you decide (wrongly) that you are terribly disabled.
You are NOT your x-ray or MRI findings! MRI findings are accurate ONLY if they match certain other tests (PT exam).

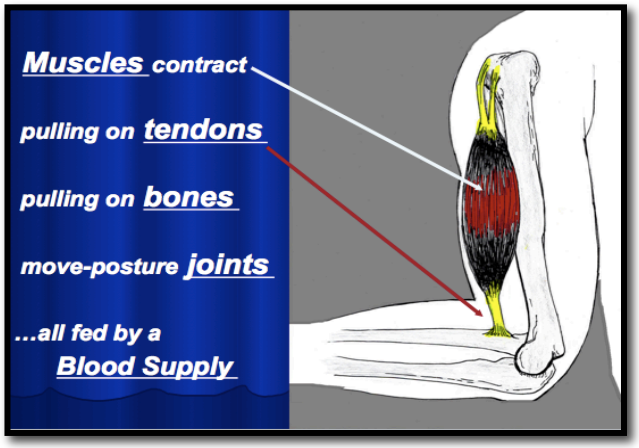
Some people have a LITTLE degeneration and LOTS of pain. But many people have LOTS of degeneration and NO pain. The amount of degeneration does NOT determine the amount of pain and disability. You may discover that much of your degenerative aging changes can actually be reversed (we this every day).

A good physical therapy evaluation can be more accurate than an MRI to identify the cause of your pain. The PT exam uses "movement testing" and "pain behaviors" to assess how symptoms react to certain activities, then selectively loads specific structures that can reveal where the pain is actually coming from. This non-invasive PT examination is key to finding the true source of the pain. Muscles, ligaments, tendons, joints each react in their own ways to PT testing… and tells us which exercise, plus what activity and posture techniques will correct it. This is a much more accurate picture.

YOUR MUSCULO-SKELETAL SYSTEM… How it works… How it breaks down… AGING:

WORK: Muscles contract… pull on tendons… that pull on bones… to move or posture joints… cushioned by cartilage… held together by ligaments. KEY: These are all fed by a BLOOD SUPPLY delivering nutrients and oxygen for the tissues to use as fuel. This produces waste products (acids that eventually become urine). The blood supply must remove the wastes produced by work. But blood supply can be blocked by muscle contraction, tendon tension, and joint loading. This traps acid wastes in the tissues. These acids then cause irritation… pain… inflammation… and gradual damage. This becomes overuse problems such as tendinitis. Over time, this becomes DEGENERATION (degenerated joint, degenerated discs in spine, degenerated tendons)…. This is: AGING !

MUSCULO-SKELETAL DISORDER (MSD)… Painful damage, irritation, inflammation, degeneration of these structures.



The working-aging musculo-skeletal system & its blood supply

PAIN… Pain nerves react to chemical irritation (a build-up acid waste products in working tissues), or by mechanical over-load (such as pinching or pulling), or by lack of oxygen that feeds the tissues. In MSD, oxygen is blocked and acid wastes build up from work demands reducing blood flow that is needed to absorb acid wastes… or from the mechanical load of posture strain… or from muscle contraction, tendon tension, joint compression that block blood supply, oxygen delivery, and acid wastes cleanup.
All these can lead to PAIN and eventually degeneration (aging). Maintaining good blood flow stops and reverses these problems.

AGING-1… SCAR TISSUE … Every day work actions break a few microscopic fibers of muscles, tendons, joints, spinal discs. These heal during rest… with scar fibers… which are weaker and more brittle than the fibers they are healing. A build-up of scar fibers over time makes you gradually weaker, stiffer, more likely to be injured. This is aging #1… and it starts about age 25.

Aging-2… DRY & BRITTLE (water loss in tissues)… Musculo-skeletal tissues are mostly water attached to proteins fibers. Water makes these tissues ELASTIC. Elasticity allows tissues to absorb loading, bending, twisting, and weight-bearing with minimal damage. But these tissues gradually lose water over time… which make tissues stiffer and weaker, more easily damaged with daily work.
This is aging #2… Loss of water and elasticity, along with a build-up of scar fibers allows tissues to break down more easily.

DEGENERATION. … AGING… This is a build-up of scar fibers and a loss of water. This reduces elasticity and allows more damage, even with light loading. GOOD NEWS: this is REVERSIBLE. Restoring elasticity and blood levels is not difficult.
A mild increase in flexibility can reverse lots of aging changes. A mild increase in activity CAN turn back the clock. It is worth the effort.

Aging & Degeneration… loss of tissue water & elasticity… gradual damage… BUT very reversible !

New Understandings about CHRONIC PAIN ...

There are two types of pain… acute and chronic. Chronic pain is VERY different from acute pain.

ACUTE pain comes from the injured tissues (sprained ankle) sending information to the brain. Nerve endings in injured or irritated tissues are stimulated when they are mechanically deformed (pulled or squeezed or twisted)... or chemically irritated (chemicals released by tissue damage or by the waste products of over-work)... or starved of oxygen (blood supply blocked by muscle contraction, tendon tension, or joint compression). The nerves send information (nociception signals) to the brain where it is felt as "pain."

CHRONIC PAIN is different. It comes from changes in the nervous system… brain, spinal cord, and nerves that have changed due to too much prolonged acute pain… even after the original injury has healed. This is a totally different type of pain… it is nerve and brain pain.

We treat the localized acute tissue pain by relaxing muscle spasm, stretching tight muscles, improving joint mobility, correcting stressful postures, to reduce loads on overworked tissues, and strengthen weak muscles. These can be very effective... once we identify the mechanical causes of pain from irritated structures. Almost everyone eventually gets better.

But chronic pain is a totally different problem. Chronic pain does not come from the injured tissues (such as an old ankle sprain). The chronic pain is running from the brain to the ankle. Chronic pain is a disorder of the brain and spinal cord, caused by overstimulation. The pain becomes automated and non-stop, within the brain and spinal cord. It is brain pain.

Acute pain that persists for months can change how the brain, spinal cord, and nerves process pain. These changes can make pain worse and much harder to reduce… even after the original injury has healed. The injury heals, but the pain can continue for years. The brain's pain centers have become over-stimulated and cannot find peace. It is similar to "Phantom Pain" in an amputated leg. The leg is gone… but it still hurts (very common). The pain is no longer coming from the injury site. It is coming from the brain remembering the injury signal, even after the injury heals. The patient fears they have ongoing damage and injury, when they actually have brain pain.

Prolonged acute pain can change NERVES, making them hyper-sensitive. Not only do pain nerves become over-sensitive, but the other, non-pain nerves (those that feel light touch, temperature, simple movement) can actually become pain nerves. Non-pain nerve signals now become pain signals. Nerves can even fire off pain signals without any stimulation. They have become over-sensitized.

There are also changes in how the SPINAL CORD transmits signals to the brain. Prolonged ongoing pain can change the spinal cord whereby pain nerve fibers grow across the spinal cord to connect to non-pain nerves. Non-pain sensations such as simple touch, temperature, movement actually become inputs to the brain's pain system. Even light touch creates pain.

In the BRAIN, chronic pain can causes FEAR that you are experiencing ongoing damage to painful body parts. Fear affects pain centers in the brain. Some people are often told they are faking or have psychological issues. This creates even more STRESS. Fear and stress can then further increase pain activity in the brain. The brain is now over-stimulated by stress and fear of activity.

These are neurological problems of an over-stimulated nervous system. But once people LEARN that their ongoing chronic PAIN does NOT mean ongoing DAMAGE in body parts… they often relax and experience less pain! Once they learn the brain creates abnormal pain signals, they feel less stress and fear. Many improve just from being EDUCATED about these chronic pain mechanisms, reducing fear and stress. They learn the pain of activity is NOT doing physical damage. This allows them to be more active with less fear of injury. Increased movement and activity then decreases brain pain.

But years of chronic pain leave people worsened by muscle weakness and stiffness from INACTIVITY. Weak muscles overwork just to maintain posture and minimal activity. Overworking weak muscles can add muscle pain to the chronic pain problem. Pain and inactivity also allow muscle to lose flexibility, pulling you into abnormal postures that can strain tissues, causing mechanical pain. Lack of activity also reduces heart-lung endurance, causing people to become exhausted early in their day. Lack of aerobic endurance causes muscles to work without enough oxygen, causing increased waste products in working muscles, causing chemical irritant pain.

Strength, flexibility, endurance must be restored… gently but daily… to allow improved activity. But once there is less fear over damaging themselves, these people can safely ease into simple exercises that correct flexibility, strength, posture, and endurance to allow them to live more life with less stress, reducing pain. The typical starting point is gentle stretching and walking… daily.

Another issue is SLEEP. Serotonin is an important brain chemical. Pain uses up serotonin in the brain. Sleep allows serotonin to be recovered. Lack of sleep further reduces serotonin. Lack of serotonin increases depression… and pain sensitivity. Therefore, sleep is critical. Lack of sleep makes chronic pain worse. Discuss sleep improvement with a good pain doctor, as there are effective medications for this. Building good aerobic activity (walking, jogging, stationary bike) can improve oxygen uptake, which can help sleep.

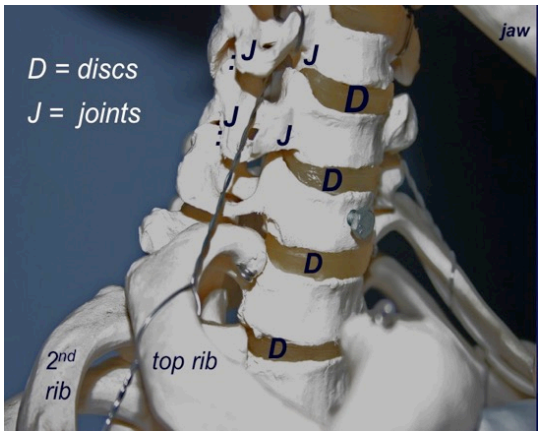
Chronic pain is treated by education (your pain is not injuring the tissues) and gradually improving posture and flexibility, then strength, then endurance. This reduces the pain that comes from poor posture, flexibility, strength, core stability, and endurance. This not only shaves off the pain from these musculo-skeletal defects… it allows you to be much more active within your pain levels. Increased activity and reduced fear and improved function then begin to knock down the chronic pain levels. YOU can decide to live with less pain!

NECK PAIN… degeneration & dysfunction & aging…

The neck section of the spine is a stack of small bones carrying the weight of a heavy head and arms. These bones have to be very MOBILE for normal movement, but also very STABLE to maintain upright posture. The bones are connected at FACET JOINTS, cushioned by DISCS, strapped together by LIGAMENTS… moved and stabilized by MUSCLES.

Discs can shrink with age (degenerated discs). Discs can also bulge or rupture, releasing the gel core of the disc to press on nearby nerves to the arms. Joints can become arthritic and grow spurs that press on nerves. Ligaments and muscles can be strained by awkward postures. Muscles can weaken and be unable to support head and arms.

** The MOST important risk factor for aging at the neck is: FORWARD HEAD POSTURE… SLOUCHING… ROUND-SHOULDERS.



Discs (D) thin with age, increasing load on joints (J), cause arthritis-spurs that pinch nerves to arms.

FORWARD HEAD POSTURE…slouching

AGING CHANGES…

Discs, joint cartilage, ligaments, muscles are about 80% WATER at age 20. But by age 50 we lose HALF of that water. These tissues shrink, get brittle, less elastic, and weak. This changes the mechanics of the neck… changing posture, reducing mobility, stressing muscle, causing pain. Posture gets stressed as the head shifts forward and upper back rounds over (slouching). This increases load strain on all the tissues. This makes aging and degeneration get worse, faster.
Arthritis spurs and disc shrinkage shifts bones, which can pinch nerves to arms and hands. Increased mobility, more daily activity (walking, for instance), and better attention to posture (our "be an inch taller" habit trick) can halt and reverse all this.

The biggest risk is SLOUCHING… ROUND-SHOULDERS… FORWARD HEAD posture habit. This severely strains neck structure. At work, prolonged sitting can lead to FORWARD HEAD POSTURE. Reaching with arms adds more loading stresses to neck. Sitting at computer all day for years causes posture to get steadily worse, weakening muscles. Twisting (such as backing up a forklift) stresses joints and discs. These can often be reduced by changing posture frequently and by micro-stretches during workday.

FIXING THIS… (Even mild improvements can reduce pain)

For care of the neck: find a less-stressful posture; plus change posture frequently; improve flexibility; improve joint mobility; restore strength of muscles that work all day to hold head upright. It is easy to improve joint mobility just a little, muscle flexibility just a little, muscle strength just a little, and pay attention to improving posture habits just a little… resulting in excellent reduction in pain.
And people get usually better… even with degenerated discs, bone spurs, herniated discs, degenerative arthritis.

Most people with neck problems have FORWARD HEAD POSTURE (slouching, rounded shoulders). The upper back curves forward, then upper neck tips backward to keep vision level. This creates posture strain that ages the neck. Muscles can tighten in this position, making it difficult to improve this bad posture. Gentle stretches of a few muscles makes it easier to improve posture just a bit (and that is often all it takes to ease pain).

1. Posture is critical… BE AN INCH TALLER. Yes, it is that simple. Constantly remind yourself (some actually place small post-it sticker on the edge of the computer screen of car dash that says, "AN INCH TALLER" as a reminder). Pull shoulders slightly back, head tall, chin down slightly, tongue on roof, teeth not touching (to relax jaw muscles to ease overall tension).

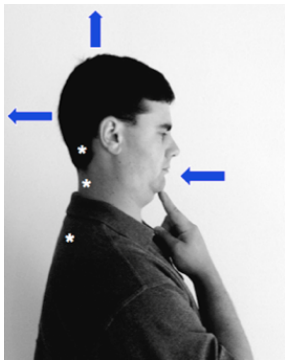
2. POSTURE VARIETY is more important than 'perfect' posture… At a desk, change chair height two inches up or down every half hour. This changes how neck is aligned slightly so that weight-bearing loads are rotated among more joints and discs for shorter time periods. Do the same in your car, adjusting seat often to provide some sitting posture variety. Stop, stand up, stretch low back backwards 10 seconds, once every hour.

3. CHIN-TUCK & NODDING… Hold head upright and tall. From that position, nod head very slightly up and down less than an inch 10 times. This “sponges” tissues being compressed under back of skull at upper neck.

4. STRETCH CHEST MUSCLES… These get tight from years of slouching. Stand facing into corner of room. Place forearm against these adjacent walls (elbows bent; hands at shoulder height). Move closer and deeper into corner so that walls stretch arms back, pulling on chest muscles. Let this stretch up to 30 seconds.

5. STRETCH SIDES OF NECK… Head tall upright; place left hand atop right shoulder; hold shoulder down as you tip head sideways to left (NOTE: your neck wants to cheat at this by turning face toward left. Don’t let it. Keep face turned slightly toward the hand on your shoulder) as you stretch 10-15 seconds. Don’t force this; be gentle. The stretched muscle (scalene) is a breathing muscle, so if you exhale during stretch, it will lengthen nicely… below…

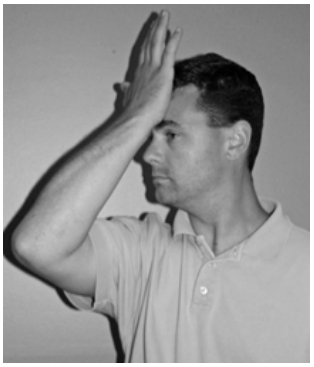
Forward Head Posture



Chin-tuck… Be an inch taller

Side-bending stretch

6. STRENGTHEN MUSCLES… Neck muscles work hard all day holding the head upright. Weak muscles overwork to maintain posture. Start with simple isometrics with head upright: place hand on left side of head; push head and hand together with about half your strength only 3 seconds, then push on right side; go each way 5 times. Then do same front to back 5 times each. Another is to lie on back and lift head only ½ inch; hold 5 seconds; repeat 5x.



isometric pushes; 3 seconds each way; 5 times left-right; 5 times front-back; while keeping head upright.

7. DAILY LIVING STRESSES… Sleep-bed pillow: Place towel roll inside pillowcase, pushing it to lie along front edge of pillow so it will lie under your neck to support neck posture (side-lying or back-lying). In car, place towel roll behind lower back. Supporting curve in low back helps maintain better head-neck posture. Reposition car seat few inches forward and back, to provide some variety of car siting posture. Use same principle working at a desk: change seat height, for posture variety. Get up and walk around often.

Towel roll in pillowcase to support neck

Lumbar roll in car corrects both low back and neck posture

TRACTION

Traction at neck can be effective… IF it is done correctly. If your PT or chiropractor is using traction, they should use a version that does NOT use a strap pulling on your CHIN. A chin-strap can stress your TMJ-jaw joint, which can then cause neck muscles to tighten, making traction ineffective or even harmful. Many docs miss this. Traction should pull only at back of head, not at chin.

We often advise patients to do their own traction using a towel, folded twice the long way, ends tied together with a cord, with the cord then tied to doorknob. The proper length of cord should allow about half of the towel to rest on floor. You then lie on your back on floor about three feet from door, placing head in that towel loop so that it wraps around ears, cradling your head. You position should cause towel loop to hold your head only one inch off the floor. Relax here. This creates a light traction as you relax here for 10 minutes, This often works very well for many with chronic neck problems. If lying on floor bothers your low back, bend one leg up slightly.

But… be sure that your own PT approves this, to make sure it is right for YOU.

Folded towel looped around ears, tied to doorknob, positioned so that head is held an inch off floor… relax 5-10 min

PAIN CONTROL

1. Ice or heat ?? There is no correct rule here. Try heat; later try ice, to see which works best for YOU. But use these only if you have normal nerve function, no numbness, no stroke history. Use these only for brief periods such as maximum of 20 minutes for heat, or maximum of 10 minutes for ice. There is a risk of burns or frostbite, so protect skin with towel layers and do NOT fall asleep during heat or ice use.

2. See later chapter on TENS use. Also, see chapter on CHRONIC PAIN.

3. Acupuncture point stimulation can be effective for headache, TMJ, neck pain. Best self-care method for this is TENS or by rubbing corner of ice cube on the acu-point for one minute (not comfortable, but often effective). The acu-points for this are Li-1, Li-4, Li-5. Li-4 is the best (master) point. It is on back of hand over the belly of the web-space muscle (between index and thumb). Li-1 is located just off the lower edge-corner of the index cuticle, thumb-side of index nail. Li-5 is where the based of the thumb joins the wrist in the empty pocket between those bones.

   ** NO ACUPUNCTURE STIMULATION IF PREGNANT **

Acu-points for head-neck-arm pain

Mid-Back (thoracic) Problems ... (often part of neck problems)

** The MOST important risk factor for aging at mid-back is: FORWARD HEAD POSTURE… SLOUCHING… ROUND-SHOULDERS, just like at neck. Upper back bends forward and head tips back on neck to level vision… stressing neck, upper back and shoulders.

As we get older, the middle to upper back (between shoulder blades) tends to round over (kyphosis) and get weaker, vulnerable to muscle strain or rib sprains where ribs attach to spine. It gets worse when we sit or drive. This adds much strain to neck and shoulders. The upper back curls forward, stressing joints and ligaments here, plus greatly weakening muscles of neck, back, and shoulders. We must then tip head backward on neck to restore level vision. This compresses joints , muscles and nerves at upper neck. The shoulder blades shift forward and tip down, closing in on rotator cuff tendons of shoulders. This all risks spine strain, spine arthritis, headaches, and rotator cuff shoulder problems.

The goal is to stop and reverse round-shoulders forward-head posture, increase spine-rib mobility, and strengthen these muscles. Again, start with "be an inch taller!" reminding yourself to hold head more upright, taller, to reverse slouching. Next, improve mobility by stretching this part of spine in twisting and back-bending. Next, strengthen with theraband elastics or lying on belly to do" airplane" arm lifts: on belly, arms out to side, lift arms 3 sec 10x.

Be an inch taller !!

Pull to full twist 15 sec

Pull elastic wide… or…

prone "airplane" arm lifts, 3 sec, 10x

HEADACHE …(many headaches come from NECK and TMJ-jaw problems)

Headache is the leading doctors' office complaint today. Some people suffer relentlessly with headaches for years without relief. But there is often needless suffering when certain issues are overlooked and left untreated. Physical therapy is now emerging as a leading approach to headache control, with good results in a very cost-effective manner.

The physical therapist evaluates the neck and jaw to identify posture and movement problems causing many headaches. These issues are usually easily corrected with a few very simple exercises and posture tricks.

Head and neck posture problems are a very common source of headache. Many (most) people have a degree of round-shoulders, slouching, forward-head posture. The upper back is rounded forward (flexion). Then, the upper neck and head is tipped backward (extension) to restore level vision. This is an abnormal and stressed posture that can compress nerves between to base of the skull and top bones of the neck. A network of very sensitive nerves runs through the upper neck, under the skull, and up the back of the head to the scalp, all the way to the eyebrows. This posture squeezes these nerves, causing headaches. This is Occipital Neuralgia.

T.M.J. (JAW) problems… (the jaw is part of the neck, and a common headache source)

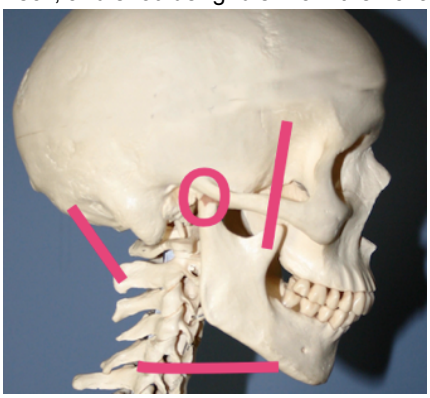
T.M.J. or T.M.D. … temporo-mandibular joint disorder (PT's prefer the term "dysfunction"). TMJ dysfunction is VERY common, but usually overlooked. Many with TMJ dysfunction do not have obvious jaw symptoms. They have plugged ears, tinnitus, sinus congestion, headaches, neck pain. The jaw joint is used during chewing and talking. But there is much, much more to the TMJ. It is usually NOT a dental issue (although some dental problems can irritate the TMJ).

The TMJ is much like the knee: with a meniscus disc, ligaments, muscles, synovial (joint lining) tissues, and with very sensitive nerves. Each of these is vulnerable to abnormal posture and movement stresses, just like at the knee.

The TMJ is very responsive to simple exercises that correct these posture and movement stresses, just like at the knee. TMJ problems are (usually) very easy to correct or improve with very easy exercises and simple posture tricks.

The TMJ has a disc between the jaw and skull socket. Disc is very mobile and can shift out of place when jaw muscles quit working properly. This can be corrected with a simple exercise. A slight change in tongue and jaw posture can correct position of the disc.

JAW IS PART OF NECK… Many muscles tie the jaw to the neck. Neck posture affects jaw posture, and vice versa.
The TMJ is a vital part of posture and balance control. TMJ is one of the most sensitive joints in the body, filled with very sensitive nerve endings that help monitor balance and posture. These nerves work closely with nerves in the neck. A mild mechanical stress at the TMJ can stimulate pain at the neck, and vice versa. Head-neck- slouching posture changes pull on all these muscles, stressing jaw joint. neck, and shoulder girdle. Pain then changes how jaw muscles control the jaw, shifting the disc and straining jaw-neck soft tissues.



TMJ is part of neck, sharing many muscles, affecting each other's posture and pain

HIDDEN T.M.J. SYMPTOMS… The most common first symptom of a TMJ problem is usually a "plugged" ear. The patient is sure they have an ear infection. Their doctor checks and sees nothing, but prescribes antibiotics anyway. They don't work because there is no infection. Swelling in the TMJ joint feels like a plugged ear, because the back wall of the TMJ is the front wall of the ear canal. Thus, TMJ swelling feels like a plugged ear. Many docs miss this.

A simple (but not foolproof) self-test is to place your fingers on TMJ (just ahead of ear) and open-close jaw. Feel a click? Watch in a mirror. Does the jaw shift slightly to one side on opening? These usually imply a mechanical TMJ issue.

Pain at the jaw is an obvious symptom. But these sensitive TMJ nerves can also cause other, more remote symptoms such as feeling like your ear is plugged, chronic sinus congestion, ringing in the ears, dizziness, swallowing difficulty, neck pain, and headaches. Nerves in TMJ can tell nerves in sinuses to dilate the blood vessels, congesting the sinuses. Maybe your chronic allergy symptoms are actually a TMJ issue? Nerve activity from TMJ issue may spread activity in the nearby ear nerves, causing ringing in ear (tinnitus). That same nerve bundle controls inner ear balance signals (dizziness-vertigo).

There is often clicking in the joint during jaw open-close motion, caused by a small disc of cartilage sliding out of place. This can even lock the joint. It is similar to a meniscus problem in the knee. This can lead to lots of joint damage.

Some patients come to us with jaw pain. But many do NOT have any jaw pain. They come to us for neck pain, headache, or dizziness... which we then discover are likely coming from a TMJ problem. They will then admit to ear symptoms, sinus congestion, tinnitus, or history of a neck injury. TMJ is often the underlying hidden problem.

FIXING THIS… It is always best to try these conservative, safe, usually effective physical therapy procedures before you subject yourself to the costs, pain, and risks of surgery, braces, breaking and resetting the jaw, extensive dental work, injections, and medications. TRY P.T. FIRST… cheaper, easier, painless, and usually more effective.

TMJ dysfunction is a MECHANICAL problem, much like a knee problem. It often responds well to PT procedures similar to those used for knee problems (posture correction, exercise, PT pain control, changes in daily living mechanics).

Patients with TMJ dysfunction often have abnormal jaw-tongue POSTURE, with poor COORDINATION in jaw MUSCLES. But most patients do not even realize this. TMJ dysfunction is usually easy to reverse simply by correcting jaw posture and muscle coordination.

CORRECTIVE EXERCISE: (this so easy) Place the tip of your tongue against the roof of your mouth, about half-way back. Press lightly and keep it there as you open your jaw. It will not open fully, but that is OK. Open and close this way ten times, keeping tip of tongue at roof. Move only your jaw, keeping face relaxed. Try not to grimace. Do in front of a mirror at first to make sure you are moving as described. This exercise activates a key muscle that is often not working with TMJ dysfunction, causing that disc to slide out of position. See illustration below. This usually corrects the disc problem.

Tip of tongue on roof, hold it there as you open jaw 10x.
Then: TMJ resting POSTURE: Tongue rests flat on roof, and teeth NOT touching. All day.

POSTURE CORRECTION: (also so easy)

This is very important to the TMJ. The NORMAL RESTING POSTURE of the TMJ is... tongue rests flat against roof, back away from teeth slightly... and the teeth do NOT touch. The only time teeth should touch is during chewing, not at rest. Constantly remind yourself of this posture: head tall (slouching forward head posture usually accompanies TMJ dysfunction)... tongue flat at roof... teeth not touching. Pay attention to this during driving, computer work, watching TV.

Head tall… Tongue rests flat on roof… teeth NOT touching… all day reminder

PAIN CONTROL:

See acupuncture point icing, described earlier for neck pain (uses same points). The TMJ often responds well to acu-point icing.

Direct ice packs for 3-5-10 minutes or warm packs for 15 minutes directly over a sore jaw may reduce pain. Try ice, then try heat to determine which works best for your (it varies among individuals). And see later chapter on TENS use for pain.

DAILY LIVING STRESSES:

Clenching habits are very common, but most are not aware of this. Many clench or simply rest teeth together when they drive, do computer work, watch TV. This quietly keeps TMJ slightly loaded and irritated. Again, constantly remind yourself to BE AN INCH TALLER plus TONGUE RESTS FLAT ON ROOM with TEETH NOT TOUCHING…. as your all day posture habit pattern.

Any trip to the DENTIST (such as a cleaning) is likely to bring back some TMJ problems. Do these exercises and posture corrections just before and just after dentist visit. Explain to dentist you have some TMJ dysfunction, so you will need to occasionally take a few seconds to do the TMJ exercise during dental procedures.

YAWNING can hurt a TMJ dysfunction. When you yawn, press tongue at roof. Do not chew gum, as it overworks the TMJ. Some have nervous habits involving CHEWING on matchsticks or pencils, which can keep TMJ irritated. Minimize heavy chewing.

Many with TMJ issues have an abnormal SWALLOWING pattern that can stress the TMJ. They tend to place tip of tongue against back surface of the front teeth when the swallow. This is not correct. The proper swallowing pattern is to anchor tongue at roof of mouth, with teeth not touching, during swallow. If you have a TMJ problem, it is good to practice the tongue-at-roof swallowing method.

HEADACHE & NECK PAIN from wearing BIFOCALS during COMPUTER work !

One of the most common causes of neck pain and headache (usually overlooked!) is wearing bifocals, or progressives, or other split-vision eyeglasses while working on a computer. These eyeglasses often require a very stressful neck posture to loom at a computer screen, leading to neck pain and headache.

Bifocals are made for reading a book. Using these to read an upright computer screen requires one to lean forward at upper back, then tip the head backward to align line of vision to the screen. This can severely stress the neck, upper back, and TMJ.

There is excessive rounding-over at the upper back, creating ligament strain and muscle weakness in the upper back. The hyperextension of the upper neck compresses muscles and nerves at the base of the skull. This posture creates strain at several jaw muscles (infra-hyoid muscles). All this risks upper back, neck, TMJ, and headache problems.

Bifocal eyeglasses on computer stresses neck


Bad vs good smart-phone posture: head tall & arms supported

CORRECTIVE ADVICE:

Simple changes in computer ergonomics and eyeglasses design, combined with two simple stretches will usually correct these risks. When on computer, switch to single-vision eyeglasses (full-size, not tiny little reading glasses) but with a slightly longer focusing distance (a slightly lower diopter strength) than you would select for book reading. This allows a more upright head posture and wider visual field, which allows some variety of head posture during computer work. THIS WORKS. Also, place keyboard so you have desk space where you can rest your forearms during typing. This is very important for reducing neck posture loads. Keep head tall when looking at smartphone

ALSO… See our later chapter on COMPUTER ERGONOMICS for more details.

SHOULDER PAIN… (Rotator cuff and other issues)

First, understand that many shoulder pains (especially at top of shoulder or shoulder blade) actually come from the NECK. One way to confirm this is to tip your head backward and toward that pain. If this head-neck position causes that pain, it is a neck problem. Also, many people have both a neck AND a shoulder problem…because the neck and shoulder problems can irritate one another. Many people with shoulder pain will develop a neck problem, and vice versa.

Several issues can irritate the shoulder. Many shoulder issues get better with improved posture and strengthening key muscles. First is POSTURE. Many people slouch: rounding over at shoulder with FORWARD HEAD POSTURE. This shifts shoulder blade forward and downward, crowding shoulder tendons (especially rotator cuff). This also creates weakness between shoulder blades, making posture worse. It is easy but critical to correct this abnormal posture. Simply remind yourself (constantly) to BE AN INCH TALLER… tuck chin in and pull shoulders back (below).

When shoulder hurts or you stress it with REACHING (reaching high or far). Reverse this stress by frequently stop and dangle it down relaxed and swirl it around 10x (below). This is generally very good for the shoulder, especially the rotator cuff tendons.

Weak muscles around shoulder BLADES can stress the shoulder joint and rotator cuff due to poor mechanical stability. It is important to strengthen the muscles of shoulder blades and upper back. Pulling shoulders back using therapy elastic band: or lying on belly, lifting arms out to sides (airplanes) to strengthen upper back muscles to control shoulder blade stability.

REACH: high or long reach or prolonged

Slouching… Be an inch taller

Dangle relaxed & swirl around 10x

Wide shoulder retract strength

On belly; arms out lift arms (airplane lifts)

Arm at side; rotate outward elastic pull

Another muscle that helps shoulder mechanics is the lower part of rotator cuff (infra-spinatus). It helps unload the upper part of rotator cuff, where most problems develop. This muscle rotates forearm outward with upper arm held against body.

Strengthening this muscle can help many shoulder problems. Pulling on elastic therapy band can strengthen this muscle: arm at side, rotate arm outward 3 sec, repeat 10X (see above). Keep elbow held against ribs as you rotate forearm outward. This can also be done lying on your side to do this motion while holding a 3 lb weight, 20x.

NOTE… The recommended number of repetitions during exercise are our starting point. One must fatigue a muscle to make it stronger. But one must also avoid irritating the muscle or its tendon when starting exercise… to be conservative when starting any exercise.

ELBOW PAINS… (Tennis Elbow: outer elbow … Golfer's Elbow; inner elbow)

Pain on outside of elbow (lateral epicondyle) is often TENNIS ELBOW. But it is a WRIST loading problem. Muscles that stabilize the hand during wrist or grip loading originate on outside of elbow. This tendon origin is thin, weak, not much blood supply, and poorly angled to tolerate loads that are heavy, repeated, or prolonged, even if load is light. Tendon fibers on outside of elbow break, then heal with scar, then break down further, and become frayed… causing pain. There are many sensitive nerves nearby that can become over-active. The inflammation may go away, but the nerves can keep the pain going (which is why cortisone injections often do not work). Once pain gets established, it can get difficult to stop.

Quick-easy tests for tennis elbow: 1. Put elbow straight, palm-down, close fist, curl wrist down toward palm. This pulls on tennis elbow tendons and hurts. 2. With elbow bent, feel small shallow bony knob on outside of elbow, Press on its flat horizontal shelf of bone… very tender with tennis elbow. 3. Lifting milk jug by handle directly loads tennis elbow tendons and hurts on outside of elbow.

FIXING IT… Can be difficult and slow to recover. First… REST. Stop doing what hurts, to allow it to heal without setbacks. Second… You want a flexible healing. Stretch gently but often, 10-20 seconds, in the test position described above: elbow straight, palm down, closed fist, curl wrist down in palm direction. It will not be comfortable. See picture.


Tennis elbow load mechanism

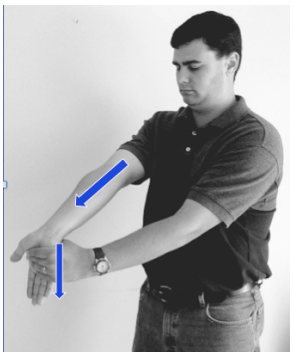

Tender lateral elbow site


Tennis Elbow Stretch

A tennis elbow "strap" around upper forearm may help some people, but not many. May be worth trying, but stop if bothers.
We find that wearing a firm WRIST SPLINT often works better, as it rests wrist muscles-tendons that originate at elbow.
TENS, ice, heat can all be safely tried. Their effectiveness varies widely among individuals.

Pain on the INNER side of elbow (medial epicondylitis) is usually GOLFER'S ELBOW. It often comes from too much gripping. But several things can be an issue here. There is often a neck problem contributing pain here (see chapter on neck). There is often a nerve problem (ulnar nerve irritation where it is pulled around bony knob…'funny bone'). There can be an irritation of the muscles that curl wrist and grip hand because they attach here. There is often irritation of the muscle that turns forearm into palm-down direction (pronator) because that also attaches here. They can also squeeze nerves to the carpal tunnel. Gently stretching each of these is key to reducing problems here.

One specific STRETCH for Golfer's Elbow: Hold arm straight at elbow, in a palm-up position, with hand open.
Tip that hand backward to stretch palm-side of forearm. Use other hand to coax full stretch. Gently 15-30 seconds once.


Elbow straight, palm-up, stretch hand backward


night splint

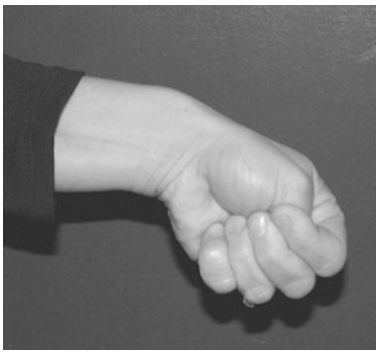
Another issue is many people SLEEP POSITION, with elbows tightly folded. This pulls on ulnar nerve where it threads around inner elbow, causing irritation. A splint or wrap that prevents elbow from bending more than half-way, worn at night, is often effective (cubital tunnel splint) because it prevents elbow from bending more than a right angle (above).

If you have a full-blown significant problem here, you may need help from a good Physical Therapist. The PT will guide you in most effective exercises that fit you. PT may also try kinesiology tape, cold laser, dry needling, and other tactics.

WRIST-THUMB-HAND PROBLEMS…. Lots of potential issues here.

Wrist pain from overuse: but is it the wrist or the THUMB? Wrist pain at the thumb side of wrist is often a tendinitis of THUMB tendons or a thumb joint arthritis, rather than a wrist problem. To test for thumb tendon problem, curl thumb into palm and close fingers around it. Hold thumb like this as you tilt wrist sideways toward little finger. If that really hurts along back of thumb, you have a thumb tendon issue.

This is important if you are considering a wrist brace to calm down a problem. A typical wrist brace stiffens wrist to rest wrist tendons, but it allows thumb to remain free to move, keeping thumb tendons irritated. If the self-test shows thumb tendon pain, then you do NOT want to use wrist splint and should, instead, try thumb spica splint that rests the thumb. The joint at base of thumb is also prone to over-use and degenerative arthritis, and may be helped by thumb splint. There is a stretch for thumb tendons: the same as the thumb tendon test.



Thumb tendon test or stretch

Thumb spica splint for thumb pain

Wrist splint to rest wrist structures

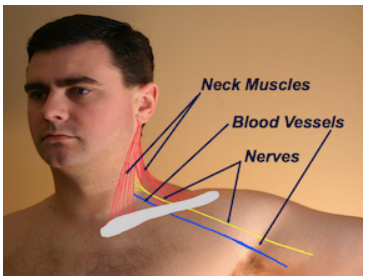
WRIST PAIN (Little-finger side)… Pain on the little finger side of the wrist is common and may suggest a problem with a meniscus-like structure (the TFCC). This is vulnerable to overuse and sprains, and can be difficult to manage. Rest is the key step. Pain that does not improve with rest and wrist splint implies you need to see a PT or orthopedic doctor.

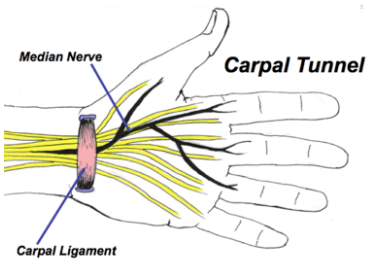
WRIST TENDINITIS… tendons on the front of the wrist run to fingers, for grip and pinch work. Overworking these can cause tendinitis. These will then need stretching to encourage better healing and elasticity. A splint can help rest tendons and wrist joint to allow healing. There needs to be a balance between rest versus activity. Wrists need both, but not too much of either. Swelling of these tendons where they enter the hand can pinch nerves to the hand where they all pass through a narrow channel (the Carpal Tunnel). This can damage these nerves… Carpal Tunnel Syndrome (CTS).

CARPAL TUNNEL SYNDROME… pinched nerve passing through wrist, causing numbness at index, long, and part of ring fingers, especially at night, especially when driving or holding grip-pinch (reading book or newspaper). Caused by arthritis, too much grip-pinch, bent-wrist work, and certain medical conditions. If thumb is also numb, the nerve is being pinch above the carpal tunnel, such as at forearm (pronator) or at neck. Key self-treatment is to wrist splint at night (for best repair positioning), reduce work demands, and gentle stretching wrist backward (elbow straight, palm-up; below).

Another risk is a slouched neck posture, which can tighten lateral neck muscles, squeezing nerves and blood vessels passing through them on their way to the hand. Compressing these nerves and blood vessels by tight neck muscles can irritate tissues further down the arm, especially at the carpal tunnel. Stretching lateral neck is key. Symptoms felt on BOTH hands strongly suggests this is a NECK problem (thoracic outlet compression). See chapter on neck care.

Work risks are pinch or grip that is forceful, repeated, or prolonged. Awkward wrist positioning during grip or pinch makes this worse (computer mouse). Care for the wrist includes rest, maybe with a splint, and stretching at wrist and neck.
One may also need to correct the ergonomics of the job (see page on Computer Ergonomics, as an example).
Minimize grip force or duration. Frequently stretch during work-day. See our page of workplace stretches.





Nerves to carpal tunnel at neck… or…. pinched at wrist…

Carpal tunnel stretch

Lateral neck stretch

ERGONOMICS Risks for C.T.S. …

Work risks are… pinch or grip that is too forceful, too often, or too prolonged…. bent wrist positioning during grip or pinch makes this worse. Vibration is also a strong risk (power tools, for example). Forward head posture adds to CTS risks.

One may need to improve the ergonomics of their job (see upcoming page on Computer Ergonomics, as an example).
Minimize grip force or duration. Grip diameter should be about 2 inches. Try to increasing the variety of work tasks, because doing the same task all day increases risks. Frequently switch between sitting and standing, if appropriate. Resting arms on work surface reduces neck loading, reducing arm stress. Frequently stretch during workday (see our page of workplace stretches).

Self-care for the wrist includes reasonable rest periods, maybe with a splint (especially worn at night, to prevent awkward sleep positions) plus frequent stretching at wrist and neck, plus maintaining more upright and tall neck posture.

grip, pinch, wrist bent

Grip size too small

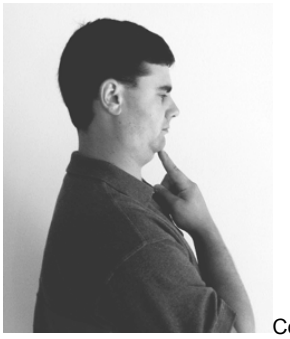
Grip size good

Switch between mouse vs trackball for work variety
Resting arms on work surface reduces neck load

micro-stretching

Night splint to protect sleep position

Good neck posture and flexibility helps maintain good blood supply and healthy nerves to arm-hand (be an inch taller!).



Correct slouching: be an inch taller

Lateral neck side stretch

Switch between sitting and standing, easing neck strain, reducing arm stress

WORKPLACE MICRO-STRETCHES…

We provide workplace musculo-skeletal injury prevention programs to workplaces across the USA. A key part of our program is to set up a collection of MICRO-STRETCHES workers should perform every hour or two during work day. Below is a copy of one example program. At your job or at home during life activities… while doing tasks that risk pain problems… consider doing those Micro-Stretches that target your pain issues.

Make sure your Physical Therapist selects the right ones to match your work demands, and teaches you how to properly do these. We accompany these with our ergonomics suggestions, such as our page on Computer Ergonomics.

SmartCare's 'NO-LOST-TIME' Micro-Stretches… (do NOT start these without proper instruction)


Chin tuck, gently 10 sec.


Stretch neck sideways 10 sec


Shrug & inhale 5 sec, then….


Relax & exhale 5 sec.


Dangle & swirl arm around 10x


Palm up, stretch wrist back 10 sec.


Palms down, elbows straight, Curl fists down & out, 10 sec


Hands on butt, push belly out stretching back gently 10 sec


Hold thigh, straighten knee to stretch back of thigh 30 sec.


One leg extended back; lean forward to stretch calf 30 sec


Grasp thumb, tilt down 10 sec


Sitting, stretch forward 10 sec


Stretch- sideways 10 sec


Sitting, pull into full twist 15 sec each


Heel on knee, pull knee across chest toward knee …30 sec

COMPUTER WORK-STATION Set-up… new improved tactics

New ergonomics tactics

Bifocal eyeglasses cause neck posture strain-headache

Place MONITOR squarely in front, NOT off to one side… top edge of screen at eye-level.

NOTE… Wearing BIFOCAL-progressive eyeglasses for computer work risks serious neck-headache problems because you lean forward and tip head back to see screen. Use single-vision reading glasses here !

Push KEYBOARD in 4-6 inches from edge of desk, then place gel pad here for arm support. Rest arms to type.

NOTE… Best: place computer in CORNER to allow full surface support for forearms. See pic below

KEYBOARD TRAY is often too low… but switching every hour between keyboard in tray versus placed on desk does provide work posture VARIETY, which can be good for posture work relief.

MOUSE should also be pushed in to allow forearm support, with gel pad placed in front for hand-wrist rest. Also, switch between using MOUSE versus TRACKBALL every 1-2 hours for wrist posture VARIETY.

Use a DOCUMENT HOLDER to hold papers upright, and move this setup often for posture work variety.

TELEPHONE… do NOT EVER hold telephone handset between head and shoulder. Use HEAD SET !!

PEN-PENCIL… place padded SLEEVE over pinch surface to reduce pinch risks.

CHAIR… Most important to be height-adjustable. The KEY is to CHANGE height often, 2 inches up or down every hour for posture variety, PLUS do a standing back-bend stretch every hour.

STANDUP OPTION… Many offices employ STANDING DESKS with tall chairs to allow switch between sitting work and standing work. This has been very well received by workers, for improved work comfort.

Another option is the VARI-DESK platform placed on conventional desk, which allows worker to raise computer to standing height, for work posture VARIETY… much cheaper-easier option than standing desk-chair.

Do our MICRO-STRETCHES hourly to keep circulation to working tissues !!

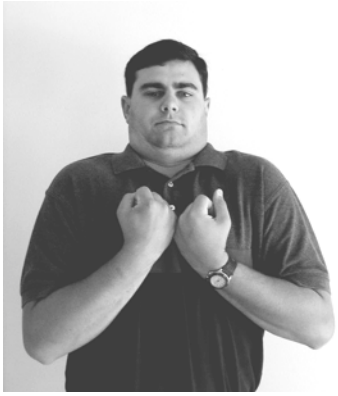
Vari-Desk allows switching between sit vs stand

Corner desk setup allows best arm support

STRESS worsens Pain… Pain worsens Stress…

Pain creates stress. You suffer…you worry… you are afraid. This causes much stress… which causes more pain.
Stress creates lots of brain activity. This brain activity creates lots of "background static" that spreads through the brain. This static creates spreads down the spinal cord, to the nerves, to the muscles… making muscles TENSE. This tension adds to pain and spasm. It can get steadily worse over time, especially when it prevents recovery, especially when it stops you from living your life.

A simple RELAXATION EXERCISE can greatly reduce this process. Do this often through the day. Make fists and shrug shoulders as you inhale 3 seconds (this drives that static way up)… then relax and exhale 5 seconds (that static drops to almost zero)… do 2-3 cycles of this. This forces the brain and muscles to consciously FEEL the DIFFERENCE between TENSED versus RELAXED. Purposely feeling that difference allows brain and muscles to re-discover relaxed non-tense resting state. Simple and effective. Do this often through the day.



Clench-shrug-inhale 3 sec… then …

Relax and exhale 5 sec… do twice

At end of day, especially going to bed for the night, you can do a lying-down, full-body version of this. This helps sleep.
Simply lie on back with one or two pillows under legs. Do this clench-inhale, relax-exhale cycle, starting at thighs-buttocks (clench thighs-butt as you inhale 3 seconds, then relax and exhale 5 seconds, 3 cycles of this), then go to belly-buttocks (clench-inhale 3 sec… relax exhale 5 sec… 3 cycles), then upper body (clench fists-shrug shoulders-inhale 3 sec… relax and exhale 5 sec for 3 cycles). Pain cannot recover without proper sleep. This can give you much better sleep.

These relaxation exercises become even more effective with practice, especially if you try to clench only lightly, followed by relax fully. Relaxation becomes more effective as you concentrate on feeling the difference between slightly tensed versus fully relaxed.

ICE or HEAT ?? There is no correct rule here. Try ice; later try heat, to see which works best for YOU. Most PTs recommend ice as the first step, as it is usually more effective (but not on everyone!) and is overall safer.

But use these ONLY if you have normal nerve function, no numbness, no stroke history. Use these only for brief periods such as maximum of 20 minutes for heat, or maximum of 10 minutes for ice. There is a risk of burns or frostbite, so protect skin with towel layers … and do NOT fall asleep during heat or ice use.

T.E.N.S. for PAIN CONTROL… (works well for some people, not so much for others)

CAUTION… TENS does NOT cure anything. It only reduces pain. You do not want TENS to mask an undiagnosed medical problem such as an infection in a joint, cancer, other medical problem causing pain. Be safe !

CAUTION… DO NOT USE TENS if you have a PACEMAKER, INTERNAL DEFIBRILLATOR, or are PREGNANT.

SO, HAVE YOUR PT DETERMINE IF IT IS PROPER FOR YOU TO USE A TENS.

Also, be sure to do the proper exercises to correct the causes of the pain.

Transcutaneous (through the skin) Electronic Nerve Stimulation… is a non-invasive application of pulsed electricity through the skin to stimulate certain nerve endings that can reduce the activity of pain nerves. Pain nerves endings from a source of injury or irritation in the body (sprained ankle, for example) deliver pain signals to spinal cord where they connect with nerve tracts delivering pain messages to the brain. Other nerve endings deliver other sensations (touch, temperature, position) to the spinal cord and on up to the brain. These non-pain nerves can block or quiet the pain nerve messages that enter that same part of the spinal cord. TENS eases pain by stimulating these non-pain nerves that can quiet pain nerves.

There are two methods of TENS… a conventional method… and acupuncture stimulation. The conventional method uses gentle stimulation at or near the pain source, while acupuncture stimulation uses acupuncture points that relate to pain source. They also use very different electrical settings.

The electricity SETTINGS are… pulse RATE (pulses per second), pulse WIDTH (duration of each pulse in milliseconds),, and INTENSITY (strength of current). Conventional TENS settings are: HIGH RATE (~150 pulses per second) and LOW WIDTH (~50 millisec), with INTENSITY turned to gentle-medium. This can be operated for any length of time, even hours of use if needed. Some TENS units have another setting called MODE where the stimulation is distorted to prevent nerves from adapting to and ignoring ongoing stimulation. Select: M or Modulation on this setting.

Acu-point stimulation is the opposite setting profile: LOW RATE (~4 pulses per sec) with HIGH WIDTH (~200 millisec) with intensity set uncomfortably high and run briefly for about 10-15 minutes. It uses a short period of uncomfortable stimulation to the acu-points your therapist selects (10-20 minutes of moderately uncomfortable stimulation, then off),

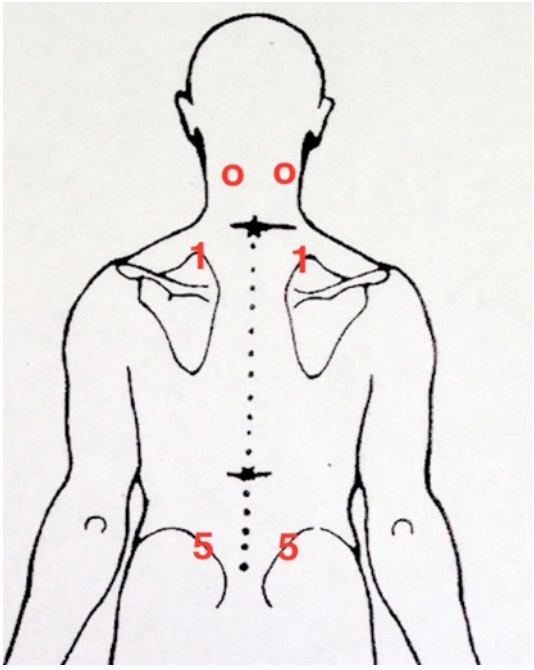
PAD LOCATIONS for conventional TENS are to place pads on either side of a joint (knee, ankle, wrist), or along the length of an extremity along edge of pain region (such as top of forearm and outside of arm for tennis elbow pain, for example), or horizontally across the pain region if in the torso (neck, lower back). Simply try to locate pads along the path of the pain. Also, you do not need to use four pads… one pair of pads is usually all you need, even though device provides for four pads. See illustrations on following pages for pad locations.

Today's TENS pads are peel-and-stick, re-usable pads. The sticky gel is mostly water, but will dry out with use, reducing sticky. With each use (after the first time) trickle a very small amount of water onto pad. It will get slimy slippery at first. Let it dry 10-20 seconds and it will become tacky again, ready to apply. When not using pads, place on their plastic sheet and place in baggy to avoid drying out. You should get 10-20 uses from each pad.

1. Conventional TENS… pulse rate high; pulse width low; intensity moderate-comfortable… can run a long time like this.

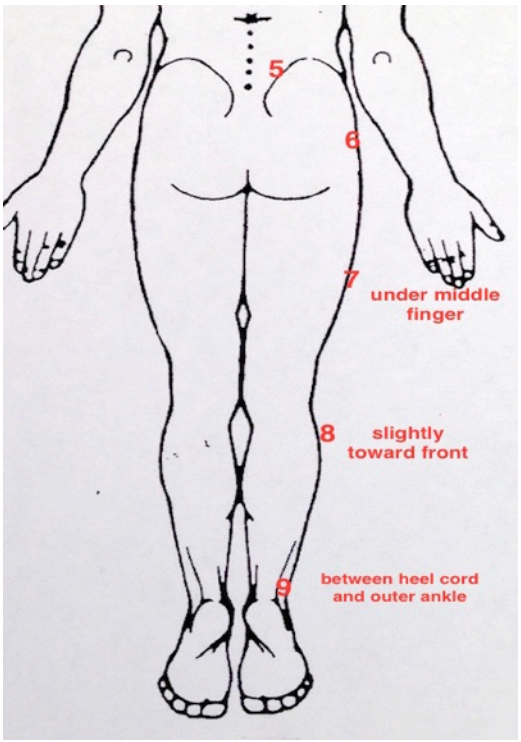
2. Acupuncture TENS… pulse rate low; pulse width high, intensity strong-uncomfortable… run for 10-15 minutes.

Pain relief with acupuncture TENS is often delayed, but more prolonged, than conventional TENS.



Spine (neck or low back) pain… using conventional TENS settings…

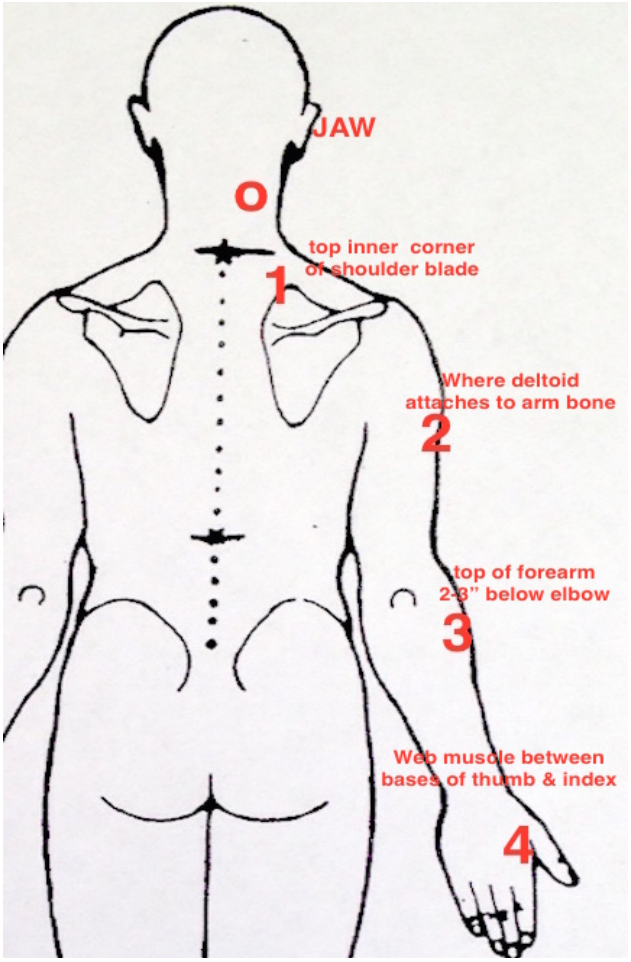
Place pads horizontally across pain levels. For mid-neck pain, place pads on left and right “0” sites. For lower neck or across shoulders, place pads on left and right sites “1”. For neck pain that runs down into upper shoulder area, place one pad on site “0” and other on site “1”. For lower back pain that does not run down leg, place pads across left and right sites “5”. Simply place pads to the left and right of the pain.



acupuncture point locations for back-to-leg pain

For back pain that runs down a leg, or for hip pain, using either conventional or acupuncture settings: place one pad at or above upper region of pain and other pad just below lower region of pain, so that pain lies between the pads. May run TENS at moderate comfortable conventional setting for longer times, or at a strong acupuncture setting, high intensity for 10-15 minutes, then off… pain relief often delayed but more prolonged with this method.

DO YOUR EXERCISES and be more active… activity reduces pain.



Site for neck, arm, headache pain; conventional or acupuncture

For neck pain that runs into shoulder or down arm: place one pad at neck “o” site, with other pad just below how far down the arm the pain is running “site 1-2-3-4”.

For headache, place one pad on upper back of neck (just above site “o”) and other pad to site 3 or 4… with acupuncture setting (run it strong for 10-15 minutes; pain relief is often delayed).

For TMJ pain, place one pad on “JAW” site (where jaw connects to skull just ahead of ear) and other pad at site “o” or site “1” with TENS running moderate-comfortable conventional setting. Using an acupuncture setting directly over the TMJ may be too irritating for such a sensitive structure, so use acupuncture settings (strong) with upper pad at site “o” or “1”, with other pad on site “4”.

For shoulder, elbow, arm, wrist pain… place one pad on the primary sore spot, with other pad on site 2-3-4, whichever one is down the arm from the primary sore spot, using conventional settings. If trying acupuncture settings, always place lower pad on site 4 (this one is a “master point” for pain control in neck-arm region).

Conventional TENS… pulse rate high; pulse width low; intensity moderate-comfortable… can run a long time like this.

Acupuncture TENS… pulse rate low; pulse width high, intensity strong-uncomfortable… run for 10-15 minutes.

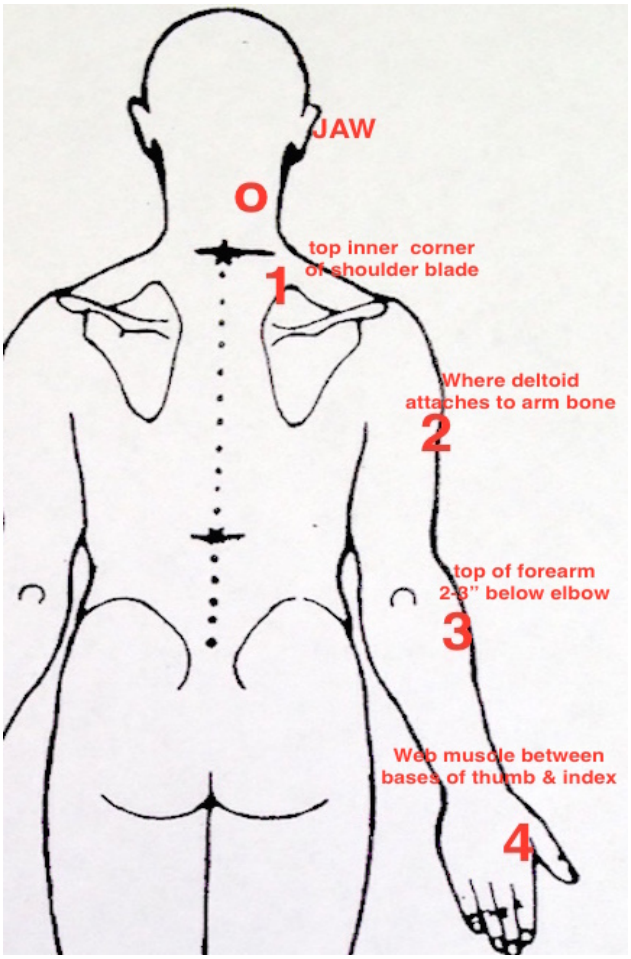
Pain relief often delayed but more prolonged than conventional TENS.

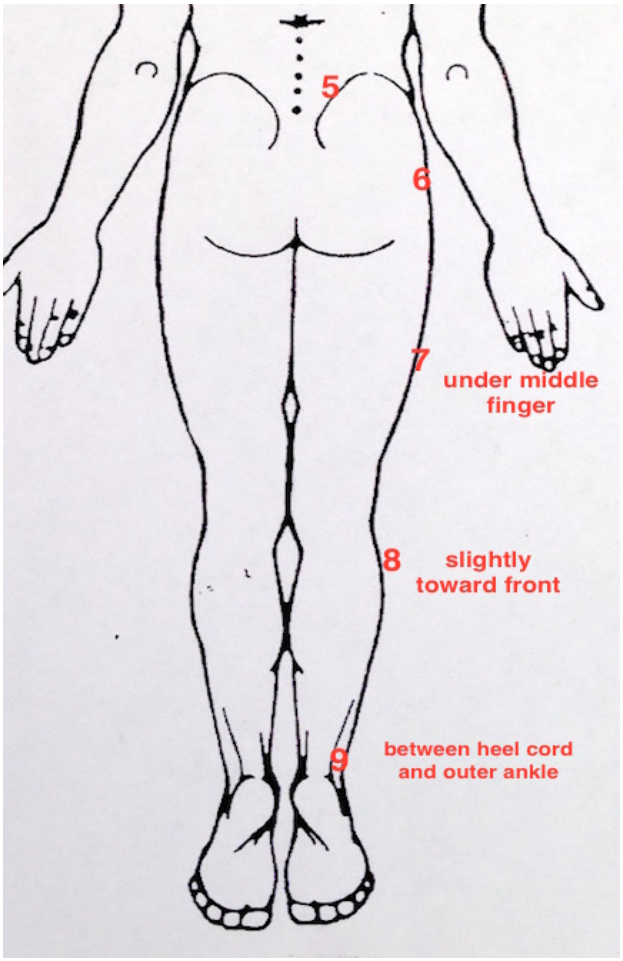
ALSO… Use this pain relief to do your exercises and be more active with normal movement. This also reduces pain.

ACUPUNCTURE POINT ICING…. Another pain control tactic.

You may not need to use a TENS to find pain relief… simply by rubbing an ice cube on the acupuncture points described above for TENS tactics. The trick is to over-stimulate key acupuncture points with the edge of an ice cube… not merely using a cold pack, but rapidly chilling just the point for just one minute.

Use the points described above for TENS. Per the illustrations, neck-headache-TMJ-arm pain problems may respond to icing sites 1-2-3-4 (site 4 is the most effective of these). Low back, hip, leg pain may respond to sites 5-6-7-8-9.





Conventional cold packs is another method whereby you simply apply cold pack over the pain site,,, only for 10 minutes at a time and use cloth over skin to avoid frostbite. This can be done as often as needed. Cold packs are safer that hot packs, due to burn risks. Hot packs are not safe with diabetes or peripheral neuropathy or other neurological conditions.

Ice massage is another tactic. This is more intense than conventional cold packs, but can be more effective. With this technique, rub ice cube on skin 3 minutes directly over the pain region. The cold is very intense but done only for short period. This is NOT comfortable to do, but often reduces pain well once done.

NOT EVERYONE RESPONDS THE SAME. Some people get great relief from these methods… others not at all.

Reminder… these do not “fix” or “cure” anything. They only (maybe) reduce your pain. It is critical that you be evaluated by your PT to make sure it is proper for you to use these, and are not “masking” a problem that needs other treatment. Your physical therapist will show you what exercises to do to improve your problem.