

My Aching Back!

Problems and solutions for Upper Back Pain



By Tamara Mitchell

Upper back pain is less common than lower back pain.^{1,2,3} This area of the spine is very strong and stable and is not prone to injury. There can be injuries to a disc in the upper back from a herniated disc or degeneration, but this is quite uncommon.² Most upper back pain involves the muscles and, less commonly the joints where the ribs attach to the spine.

In this article we'll briefly discuss the physiology of the upper back and then focus on the prevention and treatment aspects of upper back pain.

Should you see a physician?

Even though most upper back pain can be treated without advice from a doctor, there are some cases where medical help should be sought. Heart disease and other serious illnesses can manifest in the form of upper back pain. If upper back pain radiates to the front of your chest, lower part of your rib cage or your abdomen, if you have a family history of cardiovascular disease, or if you have no idea why your upper back hurts, you should make a visit to your doctor.

Seek immediate attention: If you have any of the following symptoms, you may be having a heart attack or there may be serious damage to your spine:⁴

- Chest pain or pressure, or a strange feeling in your chest
- Sweating
- Shortness of breath
- Nausea or vomiting
- Pain, pressure, or a strange feeling in your back, neck, jaw, upper belly, or one or both of your arms.
- Dizziness or lightheadedness
- Fast or uneven heartbeat
- Inability to move part of the body
- Severe back or neck pain
- Weakness, tingling, or numbness in the arms, legs, chest, or belly

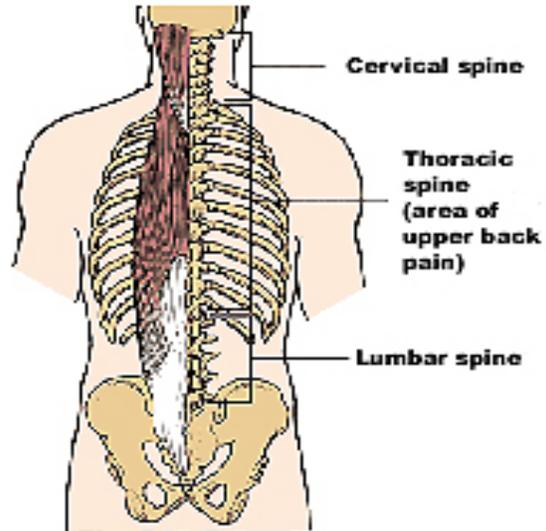
See a doctor soon: Call your doctor or health practitioner right away if you have any of the following symptoms in addition to upper back pain:⁴

- Numbness
- Weakness
- Fever
- Urinary symptoms, such as pain when you urinate
- Pain that is getting worse
- Pain that you can't manage at home.

Back pain in children should be treated seriously. Young children rarely experience back pain, so if there has been no injury, back pain could signal a serious condition such as a stress fracture, slipped vertebra, infection, or even a rare spinal tumor.^{5,6} Seek medical attention if your child complains of pain in the back or legs, walks with a limp or uneven gait, refuses to walk, or keeps the back straight when picking up objects from the floor.⁵ Older children tend to be more aggressive in activities and sports, and carry heavy back packs, which increases the possibility of compression fractures and occasional disc injuries.⁶

Anatomy of the Upper Back

The thoracic spine, also called the upper or mid-back, is the portion of the spinal column that corresponds to the chest area. The word "thoracic" means pertaining to the chest. The thoracic spine is made up of twelve spinal vertebrae with attached ribs.² When viewed from the side, this section of spine is slightly concave. Each vertebra in the thoracic spine is connected to a rib on both sides at every level. The upper nine ribs are joined at the front of the chest, attaching to the sternum (breastbone). The lower three ribs are firmly attached at the back to the spine, but do not join together at the front. This creates a cage that provides the structural protection for the vital organs of the heart, lungs and the liver and also creates a cavity for the lungs to expand and contract.² Because the ribs are attached, movement of this part of the spine is limited and the upper back is very stable.^{1,2,3}



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The part of the upper back that usually causes us pain is not the spine or the ribs, but the muscles and the fibrous casing around the muscles called the fascia.

Upper Back Muscles

There are many muscles in the upper back. They are arranged in essentially three layers: a superficial layer, an intermediate layer, and a deep layer.⁸

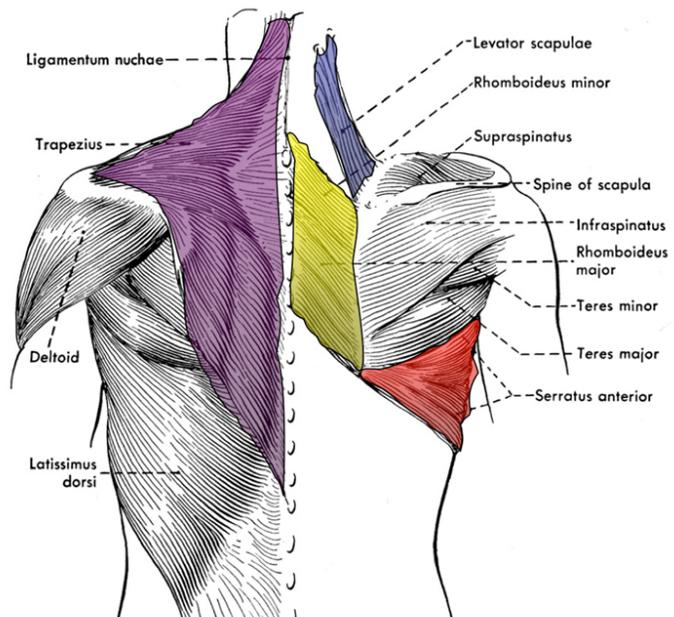


Illustration courtesy of Ref. 7

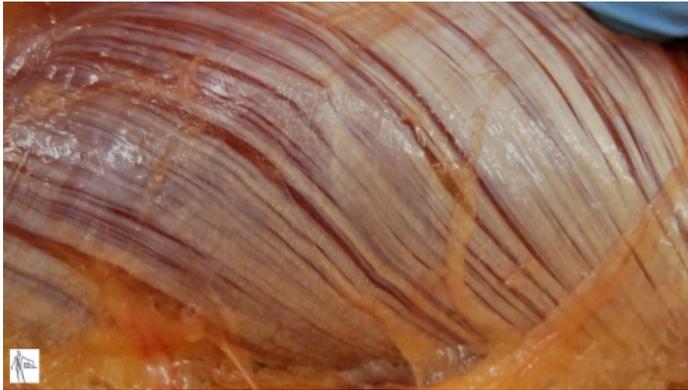


Illustration courtesy of Ref. 9

Fascia.

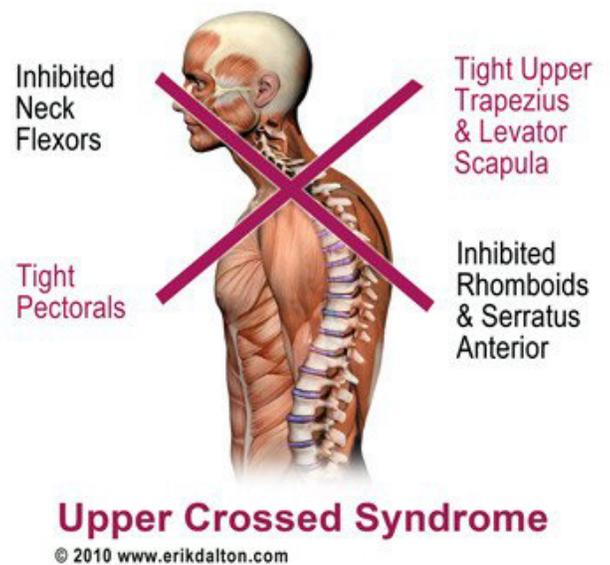
If you've ever cut up meat, you're familiar with fascia. It surrounds each bundle of muscle in the body as well as the organs and holds them all in place.⁹

Upper Back Pain and Problems

Because there is little motion and a lot of stability throughout the upper back, common disorders of the lower back such as herniated disc, spinal stenosis, degenerative disc disease, or spinal instability are very rare in the upper spine. Only about 1% of all disc herniations occur in the thoracic spine.² In rare cases, upper back pain can be caused by thoracic disc disease. Diagnostic tests such as an MRI scan and correlation with physical symptoms are required for diagnosis.² Osteoarthritis caused by breakdown of cartilage in the small facet joints of the spine as well as myofascial pain affecting the connective tissue of the muscles in the back can also cause upper back pain.³ Herniated discs and other degenerative problems can occur, especially with aging. We will not cover these problems in this article because they are not within the scope of ergonomics and should be diagnosed and treated by a health practitioner.

The most common causes of upper back pain are muscle strain, overuse, or poor posture.^{2,3} Pain, tightness, stiffness, muscle spasm, tenderness to touch, and headache are common symptoms. Working long hours at a computer with poor posture as well as overuse of handheld devices is causing an increase in upper back and shoulder problems over the past few years.

Tightness, stiffness, burning, muscle fatigue. Muscles contract to produce force in everyday movement, but they cannot contract continuously without fatigue and impairment. Muscle fatigue eventually leads to myofascial pain. When people sit in a posture that requires constant contraction of a muscle or group of muscles, the result is an isometric contraction that reduces blood flow and results in a reduction of oxygen supplied to the muscles.¹⁰ Even though these muscle contractions may be significantly below the level of maximum contraction, fatigue sets in after prolonged contraction.¹¹ The head weighs approximately 12 pounds, but when it is held forward three inches (which is not uncommon), the load on the neck, shoulder, and upper back muscles is 42 pounds due to gravity.¹² A static isometric load of 42 is a lot to maintain for hours each day, every day of the week.^{12,13} It eventually leads to an imbalance in the upper body muscles with some muscles becoming too tight and the opposing muscles becoming weaker. In addition, the forward posture compresses the chest and reduces lung capacity and it may also compress



the intestines resulting in digestive and bowel problems.¹² The forward head and rounded back posture is called the Upper Crossed Syndrome as shown above.¹²

Typical Muscle Imbalances in the Upper Crossed Syndrome¹²	
Tight/Facilitated Muscles	Weak/Inhibited Muscles
<ul style="list-style-type: none"> • Pectorals • Upper Trapezius • Levator Scapula • Sternocleidomastoid • Suboccipitals • Subscapularis • Latissimus Dorsi • Arm Flexors 	<ul style="list-style-type: none"> • Longus Capitis • Longus Colli • Hyoids • Seratus Anterio • Rhomboids • Lower Trapezius • Posterior Rotator Cuff • Arm Extensors

Muscles tighten up for several reasons.^{1,3,14,24}

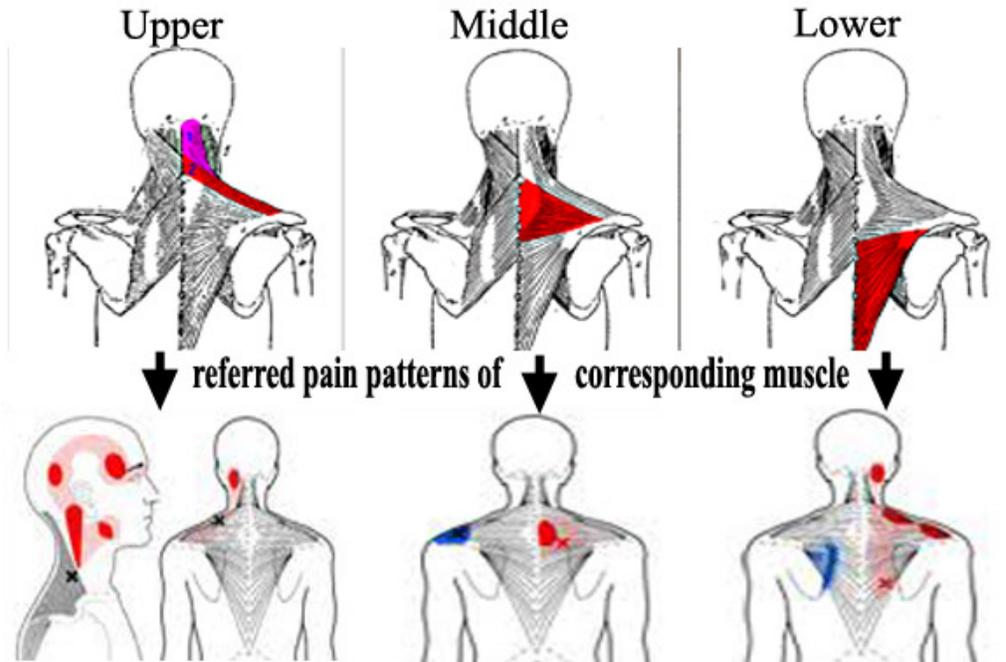
- Poor posture is *the most frequent* cause of upper back muscle tension. Most people hold their head in front of their body instead of aligning it with their hips while they walk and sit. This position progressively tightens the upper back and shoulder muscles and can cause headaches.
- Overuse causes small microtears in the muscles. The muscles then tighten up to protect themselves.
- De-conditioning or lack of strength.
- Poor stretching routines, especially after training, can cause muscle tears.
- Twisting, excessive bending, lifting improperly, carrying too heavy a load
- Smoking
- Being overweight
- If you have scoliosis, a sideways curve in the spine, then some muscles will be put under more strain than they can tolerate.
- Unresolved emotional issues can be manifested as muscle tension

Myofascial damage.

Myofascial pain often results from repeated strain to an area without allowing the fascia time to regenerate and hydrate. Not enough breaks as well as repeated overuse will cause injury to the fascia, adhesion, and lack of versatility in the tissue.⁹ Myofascial pain usually feels like a dull, deep aching.¹⁶ There are ten times more nerve endings in the fascia than there are in the muscles.⁹ It is possible to work through muscle fatigue and aching, but myofascial pain awakens much more awareness in the brain.⁹ It appears that different people have different physiological traits to their fascia, so not everyone has fascia that responds the same way.⁹ When a specific myofascial trigger point is pressed or rubbed, pain will be felt if that point is involved.¹⁶ People who report no pain in their bodies often have latent myofascial trigger points that are painful when pressed. People who are aware of pain may have one or more active myofascial trigger points that are the source of the symptoms.¹⁶ Rubbing the trigger point often reveals a hardened ropelike group of muscle fibers which is a result of thickening and scarring of the fascia, or fibrous muscle casing. As with other upper back problems, the cause often lies with chronic posture issues. Releasing the trigger point and relieving the pain may involve a combination of approaches including trigger point pressure, trigger point injections, stretching, and massage.¹⁶ Myofascial pain often has an emotional component which is the source of chronic muscle tension and awkward postures, so dealing with the mental stressors through cognitive therapy, meditation, relaxation techniques, and hypnotherapy can help prevent recurrence.¹⁶ The following diagram shows the top layer of muscles

involved in upper back, shoulder, and neck tension and the associated trigger points or knots that may develop and need releasing.

Trapezius



Levator Scapulae

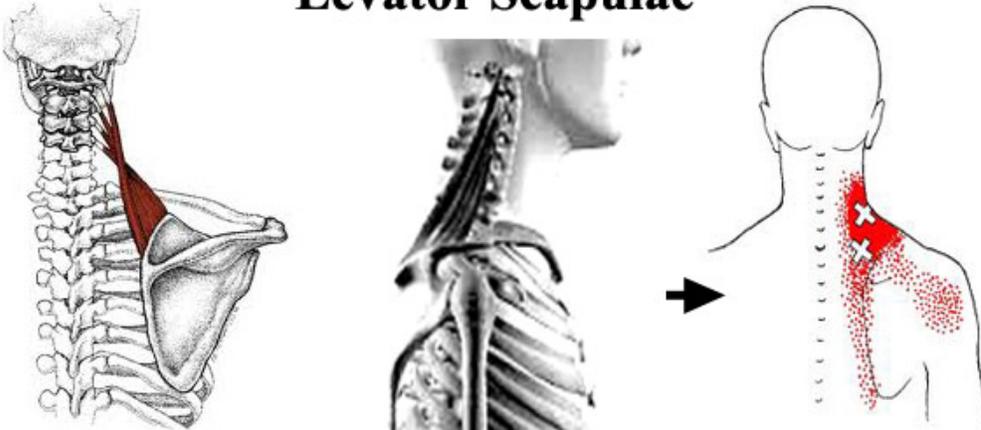


Illustration courtesy of Ref. 17

Muscle spasms.

When back pain is a result of actual muscle spasms or cramps, it can be enormously painful. Rather than the dull ache, burning, or tightness of muscle fatigue, or the chronic aching at a specific point where a myofascial knot has formed, muscle spasms generally involve an entire muscle contraction. Muscle spasms in the upper back are almost completely debilitating and cause movement and upright posture to be impossible, one or both arms may not be able to function, and/or the neck may not be able to move

well without unbearable pain.¹⁸ Any tiny movement or change in position can trigger a new bout of spasming. Unfortunately, the whole mechanism of muscle cramping is not well understood, so relieving cramps or spasms is a matter of trying various treatment methods and hoping that the muscle will relax soon.¹⁹ Cramps often occur when muscles are fatigued and it is generally agreed that spinal mechanisms are involved in the development of cramps.¹⁹ Research is attempting to identify safe and effective medications to manage, prevent, or reduce recurrence of muscle cramps, however the best approach is to reduce the circumstances that produce fatigue in the first place, which in many cases of upper back muscle spasms relate back to postural problems and lack of muscle conditioning.

Traumatic injury can cause pinched nerves and general inflammation which can cause muscles to spasm within 24 hours of injury and should not last more than a few hours or days.¹⁸ Recurrent or chronic muscle spasms can be caused by lack of oxygen (Ischemia) which is usually caused by psychological factors.¹⁸ Repression of emotional issues causes a mind-body reaction where the subconscious mind, for whatever reason, will contract blood vessels and reduce oxygen supply to certain muscles and the result will be a muscle spasm.¹⁸ If someone experiences frequent or chronic muscle spasms in the back, shoulders, or neck, one of the most effective approaches to finding lasting relief may cost nothing more than learning relaxation techniques, meditation, breathwork, or guided imagery techniques.²⁰ Knowledge therapy involves learning more about your specific type of pain, reading about it, journaling to discover triggers, and finding a combination of things that bring relief or prevent recurrence of the problem.²⁰

Joint Dysfunction.

The ribs connect to the spine by joints on each side of the spine. Most of them have two joints on either side as shown in the illustration. Injury to these joints can cause upper back pain.² In most cases, this is treated much like other back pain, but chiropractic manipulation can mobilize the joint and reduce discomfort.² As with the muscular problems, a regular program on strengthening, stretching, and aerobic conditioning will provide lasting relief from this type of problem.²

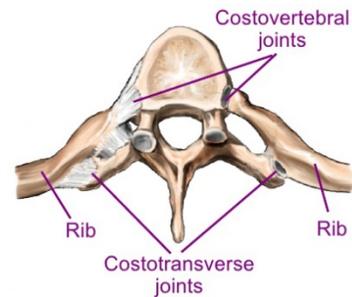


Illustration courtesy of Ref. 21

Upper Back Pain Prevention

1. *Take frequent stretch breaks* to restore circulation and prevent muscle fatigue, which can offset the negative effects of static posture. We have four great back stretches on the website that are easy to do in your office: http://working-well.org/Website/st_back.html. Three of these specifically target the upper back and opening up the chest area. Not only do rest and stretch breaks allow the muscles to relax, they are essential to allow the fascia to hydrate. Without breaks, they fascia becomes dehydrated.⁹

2. *Improve your posture and body mechanics.* Poor posture eliminates the natural weight-supporting S-curve of your back and weakens the muscles of the upper back, making them susceptible to strain. You can take a free class through your HMO or at the Balance Center in Palo Alto to learn better body mechanics (<http://www.balancecenter.com/free.htm#free>). Or seek out a practitioner in the Alexander Technique to help you improve your posture.

In your car, adjust the seat and steering wheel to minimize your reach and shoulder elevation while driving. Try to adjust these so your arms hang relaxed from your shoulders and your elbows are bent at about a 90° angle. Never lean on the armrests or window while holding the steering wheel.

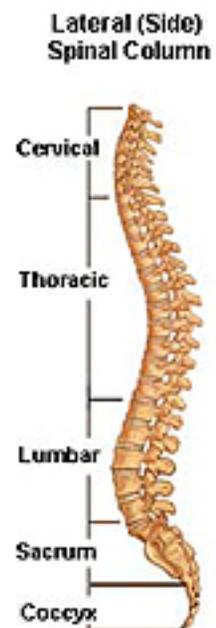


Illustration courtesy of www.spineuniverse.com

3. *Regularly stretch and strengthen your neck, shoulders, and upper.* Along with your regular exercise routine, you should add a few minutes of exercises to release the upper back muscles, open up the chest, raise the head, develop good posture, and strengthen the muscles that support your body in an upright position. Both stretching and strengthening exercises are important to maintain the back. One without the other is much less effective.

Some excellent upper back stretches are available online from Osteopath Coby Langford at: <http://www.sootheclinic.com/prevent-reverse-dowagers-hump/>

A strong back is much less likely to get injured. Symptoms experienced by 8 out of 10 patients with back problems are due to weak back muscles. Poor posture is often not just a bad habit, but a result of weak muscles. It is possible to slow down the physical degeneration associated with aging, prevent osteoporosis, retain mobility, and speed up recovery time from illness and injury by maintaining a strong back. Not only do the muscles of the back get stronger, but the fascia responds to exercise also.⁹ The fascia gets temporarily weaker after exercise, but it increases in strength and becomes more elastic and healthier as long as an exercise program proceeds gradually and includes versatility.⁹ There are many exercises that can strengthen the upper back.

- Using a *resistance band*, these five exercises work specifically on strengthening those neglected upper back muscles: <https://youtu.be/K2tmZeW1jlk>
- There are also some excellent strengthening exercises that can be performed on a *Swiss exercise ball* or on the floor: <https://youtu.be/1CxDDAWli2Q>

4. *Modify your various work and hobby environments* to keep the spine in neutral position. Adjusting your chair and the height of the work surfaces are two major changes at a workstation that can reduce sources of awkward posture and muscle tension. If the backrest is not supporting your lumbar curve or it is tilted incorrectly, you will overuse your upper back muscles.¹⁰ If the chair is too low, your head will be thrown forward due to a backwards tilted pelvis. Refer to our web pages regarding the correct chair adjustments (<http://working-well.org/Website/chair.html>). Use the chair correctly by sitting all the way back against the backrest to allow your back muscles to relax.

Refer to http://working-well.org/Website/wkstn_design.html for information regarding the correct workstation height. To prevent injury, adjust the height according to the task being done.

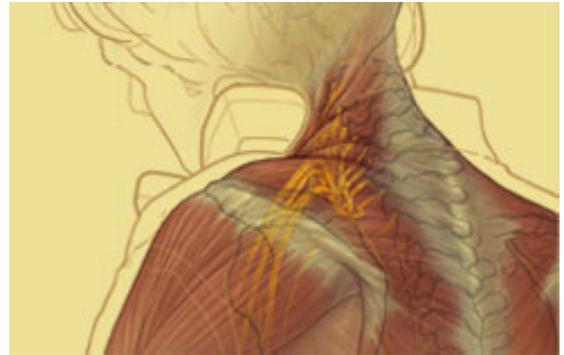
Keep tools and materials needed for the task at hand within your neutral reach area. When you reach out of this zone during any of your daily activities, or if tools and machines are at an inconvenient height, the upper back muscles are overloaded. Make sure the tools you are using are close to your body or within easy reach to eliminate twisting or bending.¹⁰



5. *Learn more about osteoporosis to prevent the degeneration of the spine.* Osteoporosis is the reason for approximately 700,000 fractures of the wrist, hip, ribs, or vertebrae each year. This is one of the few upper back ailments that is not muscular irritation, but it can be prevented or minimized if proper diet and back strength is maintained throughout life.

6. *Hold your head up.* When reading, elevate the material to avoid dropping your head. Slantboards and document holders at the desk or in front of the computer are critical. Our web pages recommend quality products (<http://working-well.org/Website/pdochldr.html>).

For traditional phones use a headset or a softalk phone rest. Cradling the phone (as pictured on the right) is extremely dangerous to the neck and upper back. Use an earbud, headset, or other hands-free device when talking on cell phones. Use a tablet or cell phone stand to keep mobile devices at eye level and to avoid forward head tilting: <http://working-well.org/Website/plaptop.html#tablets>



7. *Get plenty of magnesium.* Magnesium is required for nerve conduction and muscle relaxation.²² There are many things in today's lifestyle that robs our body of magnesium including excess alcohol, salt, coffee, phosphoric acid in colas, prolonged stress, and antibiotics.²² There is no reliable test for magnesium deficiency, so symptoms including muscle spasms and cramping, facial tics and twitches, insomnia, irritability, anxiety, and PMS are all indications that magnesium levels may be low.²²

Including foods in your diet that contain higher levels of magnesium can help. These include:²²

- Kelp and dulse
- Wheat bran and germ
- Nuts including almonds, cashews, brazil nuts, filberts, pecans, and walnuts
- Buckwheat, rye, barley
- Brown rice
- Figs and dates
- Collard greens, parsley, avocado, dandelion greens, and garlic
- Shrimp
- Beans and soy beans

Add a magnesium supplement orally with a powder or pill, or apply magnesium oil to the area of pain for transdermal absorption.²² Check with your doctor before using any type of magnesium supplement because it can affect the absorption of calcium and other medications.²²

8. *Drink water and cut back on coffee.* Water is very important in moving metabolites (by-products of metabolism) out of your muscles and tissues and keeping these from building up and causing pain.²³ Hydration is important! Coffee dehydrates you which is counterproductive to removing metabolites from the body. It also stimulates your body to produce adrenalin which increases muscle tension and resulting back pain.²³ Caffeine also robs your body of magnesium, which we discussed above. Magnesium is important in relaxation of muscles.

9. *Relax and de-stress.* Many back problems, except those arising from degenerative issues or physical damage, can be traced to psychological stresses and nagging, bothersome problems in our lives. Allow yourself 10 minutes to lie down and get your mind off work and worries. Listen to a guided relaxation recording while you rest.²³ There are many recordings you can find on YouTube.com or purchase. Just search on "guided relaxation" or "guided imagery". One of the all-time authorities on guided meditations for all types of stress and healing is Belleruth Naparstek. Her recordings area available online at: <http://www.healthjourneys.com/>.

Eat a piece of dark chocolate which has been shown to trigger your brain to release endorphins and help you relax.²³ Take 5 slow, deep breaths or try some of the breathing techniques in our article on Breathwork and learn why this works: http://working-well.org/articles/pdf/Breathing_2015.pdf

Upper Back Pain Treatment

Most upper back problems can be resolved within 1-2 weeks.¹ Don't rush to resume normal activities when you start feeling better or you may have a set-back in recovery. Take things slow and gradually add more strenuous activities, but drop back if pain recurs.¹ Continue treatment, exercises, and posture awareness!

Muscular tension, myofascial pain, and muscle spasms are best treated by the following treatments.^{1,2,3,24}

The order of the treatments depends on the type of problem and the ability to perform them. For instance, exercises and good posture are likely impossible when you are experiencing muscle spasms, though they should be added as the problem improves. For myofascial pain, it is probably most effective to seek acupuncture and trigger point work at the beginning. If you regularly end the day with a lot of muscle fatigue, exercises and good posture practices are likely most important to begin with.

- Exercises. Specific exercises to stretch and strengthen the muscles on your back, shoulders, and stomach can help improve posture and reduce muscle tension. Please refer to the stretches and exercises recommended in the previous section on Prevention.
- Practice good posture. Simply sitting and standing with the head upright and balanced at the top of the spine rather than jutting or tilted forward significantly reduces the load on the upper back, shoulders, and neck muscles.
- Physical Therapy. During physical therapy, it's important not only to strengthen back muscles, but to re-learn how to use the correct muscles naturally again.
- Chiropractic or osteopathic manipulation
- Acupuncture and trigger point needling. Acupuncture involves inserting fine needles at energy meridians. Trigger point needling is very different and involves inserting needles directly into the muscle knot.
 - *Dry needling* involves inserting a needle into the trigger point in an in-and-out technique in multiple directions. It is one of the fastest and most effective ways to inactivate myofascial trigger points.²⁵
 - *Trigger point injections*. A more aggressive approach than trigger point massage involves injecting the knot in the muscle with an anesthetic such as Lidocaine.^{24,25} This is as effective as dry needling, not superior, but perhaps avoids some discomfort.²⁵
- Ice packs for 20-30 minutes every 4-6 hours for the first 2-3 days of muscle spasms. After 2-3 days of ice, use moist heat to help loosen stiff muscles. Ice is effective in significantly reducing intramuscular temperatures, reducing local metabolism, inflammation, and pain by reducing the speed of nerve conduction and reducing the local muscle tone.²⁶ Heat doesn't penetrate deeper tissues as well as cold, but it can be effective in reducing pain and local muscle spasms.²⁶
- COX-2 inhibitors, Ibuprofen or other NSAIDs (non-steroidal anti-inflammatories) can be useful in reducing the inflammation associated with muscular irritation. Steroidal injections are usually not warranted.² Please read our article on Inflammation to understand the many ways you can relieve inflammation: <http://working-well.org/articles/pdf/Inflammation.pdf>.
- Massage
 - ♦ *Deep tissue massage*. A good massage therapist can not only release muscle tension, but also remind the body to relax and let go of unnecessary tensions. There are forms of massage that work on the nervous system, lymphatic and craniosacral system. Frequency is more important than duration, so schedule a massage before your back becomes painful.

A friend may be able to help release muscle tension in areas that you can't reach. Kneading or using the elbow to press into the point of pain for 15-30 seconds can help. Pressing on the area with the elbow slows the blood supply briefly and then releases it, flooding the area with blood and oxygen and often relaxing muscle spasms.

- ◆ *Self-massage.* One minute of self-massage each hour in the problem area of your upper back can help relieve muscle spasms in the upper back. Please refer to our web page on Massage, Acupressure & Exercise for information and resources on self-massage: <http://working-well.org/Website/massage.html>. Try putting a couple of tennis balls in a sock, then lean against a wall with one ball on either side of the spine and roll up and down the wall while the tennis balls knead your back. You can also buy a Healthy Body Ball (www.healthybodyball.com) with rounded knobs that help knead the back muscles. Yamuna body rolling works the way a massage therapist works, but you learn to do it yourself using a 6-10 inch ball (varying sizes and densities are available), starting at the origin of the muscle tendon and rolling out the muscles while also stimulating bone and soft tissues. For people with osteoporosis, there are balls available to accommodate fragile bones.
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- The image shows a person lying on their back on a blue mat, leaning against a wall. They are using a ball (likely a tennis ball or a similar small ball) to massage their upper back. The person is wearing a light green tank top and dark blue pants. The wall is light-colored and has a vertical wood-grain pattern. The floor is light-colored.
- ◆ *Trigger point or Bowen Technique massage.* If stretching and exercise seem to make your back pain worse, you may want to explore trigger point massage or Bowen Therapy. By stretching and strengthening certain muscles that contain trigger points, this theory maintains that you are actually stimulating the triggers and making the problems worse. Trigger point massage requires knowledge of where the triggers are located and what effect they may have on the rest of the body. Bowen Therapy is different and it focuses on the release of the fascia; the tissues surrounding the muscles and organs.²⁷ A Bowen treatment helps to rebalance the body's structure, relaxes the fascia, and allows the body to realign.²⁷
 - Examination of your emotional state can lead to clues about psychological tension that manifests as neck, shoulders and upper back tension. How are you feeling emotionally? Do you have unfinished issues or conflicts in your life, withheld resentment, or feeling overburdened? Resolve emotional issues and you will eliminate a lot of physical pain in your body. Unresolved experiences are held as tension in the muscles and organs of the body.²³ Seek help from a counselor or therapist to learn successful strategies.
 - Ultrasound is a deep heating modality which can be used to increase the flexibility of connective tissues prior to stretching. In a majority of upper back pain cases, inflammation is involved and ultrasound should not be used because heat increases the inflammatory response. Random controlled studies using ultrasound have found mixed results.^{25,28} Some studies have found no significant improvement in pain while others have found both reduction in pain and increase in pain threshold.²⁵ Overall, it may provide some short-term or intermediate-term reduction in pain and increase in function.²⁸
 - Laser therapy is fairly new and it will require more research, but in initial studies it proved more effective in decreasing pain better than laser therapy with dry needling or a placebo.²⁵ It involves aiming a beam of light on the affected area with a probe that emits light in the far red/near infrared wavelengths (600-1000 nm).²⁹ These wavelengths are not absorbed by body tissues and fluids, so are able to penetrate the body, specifically the cell membranes, and appears to trigger the alteration of cell metabolic processes and possibly results in a cascade response.²⁹ Benefits in real life studies didn't last 6 months, but it did appear to relieve pain for a few weeks.²⁵ Most research has been done in the lab and a lot more research on live subjects is needed.²⁹
 - Magnetic stimulation has not been studied extensively in relieving upper back tension, but in a couple of studies it proved to be more effective in reducing pain for longer periods of time.²⁵ It involves the creation of a magnetic field that can stimulate peripheral muscles in a painless manner without the need for electrodes.³⁰
 - TENS, or transcutaneous electrical nerve stimulation, involves placement of electrodes on the body and electrical stimulation of the nerves. It is generally used in cases of chronic pain and is not

indicated in treatment of initial acute back pain.²⁶ Some research indicates that TENS may provide some temporary relief. It should not be considered a primary therapy, but may reduce pain when used in conjunction with trigger point therapies.²⁵

Joint dysfunction is best treated by manual manipulation (osteopath, chiropractor, or physical therapist) to help mobilize the joint and reduce discomfort.² A home exercise program to stretch and strengthen the spine and shoulders is very important to maintain lasting upper back pain relief.² Aerobic conditioning is also essential for joint health. As with muscular irritation, steroidal injections are usually not recommended.²

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RESOURCES:

- *Healthy Body Ball*. 1-800-455-4346. <http://www.healthybodyball.com/>
- *All About Massagers*. 1-800-456-9655. <https://www.healthyhappyplonglife.com/collections/yamuna-balls-accessories>
- *Health Journeys*. Guided meditations by Belleruth Naparstek. <http://www.healthjourneys.com/>
- *TheraCane Trigger Point Massager*. <http://www.theracane.com/>

This article and all of our articles are intended for your information and education. We are not experts in the diagnosis and treatment of specific medical or mental problems. When dealing with a severe problem, please consult your healthcare or mental health professional and research the alternatives available for your particular diagnosis prior to embarking on a treatment plan. You are ultimately responsible for your health and treatment!

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