Abdominal pain and other symptoms that seem to indicate an internal, or visceral, problem may actually be coming from myofascial trigger points (tiny contraction knots) in stressed or overworked abdominal muscles. Abdominal trigger points also cause a surprising amount of back pain.

Stomachaches, stomach cramps, heartburn, or burning pain that feels like an ulcer can be referred from trigger points in the abdominal muscles. It's important to recognize that referred myofascial pain can be as intense and intolerable as pain from any other cause. The pain can be so intense, in fact, which the doctor may want to do tests for stomach cancer, hiatal hernia, and gallstones. Pain from a trigger point in the rectus abdominis muscle can also imitate acute appendicitis.

Gallbladder removal is done more often than any other type of surgery in the U.S. (over 600,000 per year). It's not uncommon for abdominal pain to remain after your gallbladder is gone. This may not be a residual problem with the biliary system, but may be nothing more serious than trigger points in the abdominal muscles, which can do a very convincing job of mimicking gallbladder and bile duct symptoms.

Irritable bowel syndrome is a very popular diagnosis, but it's only a label given to abdominal symptoms when the true cause is unknown. When the tests all come up negative, there's an extremely high probability that trigger points are the source of the problem. Any physician should know that trigger points are always exquisitely tender, and that pressure on abdominal trigger points very often reproduces or accentuates their referred pain.

Other referred symptoms from abdominal trigger points can take the form of nausea, chronic diarrhea, loss of appetite, projectile vomiting, and simple indigestion. The pain of colic in a baby can be from trigger points in his or her stomach muscles. Abdominal trigger points can also produce pain and other false symptoms in the esophagus, kidneys, bladder, colon, rectum, and the genitals of either sex. Heart arrhythmia can sometimes be the effect of a trigger point where the abdominal muscles attach to the lower right side of the chest (yes, the right side!).

The current fad for hardening the stomach muscles with vigorous exercise may have lured you into overworking this vulnerable area. Seeking a well-defined "six-pack" or "abs of steel" can leave you with vicious abdominal trigger points. This can be the simple explanation for your mysterious back pain or any of the other symptoms listed above. Abdominal exercises are not a solution for back pain if their effect is to make it worse.

It goes without saying that your abdominal symptoms can be signs of genuine internal trouble. But physicians who are unaware of the myofascial causes of abdominal pain can be led to a wide range of mistaken diagnoses and mistreated treatment, including needless, sometimes life-threatening operations. This is especially regrettable because the solutions are so simple when trigger points are to blame.

* Plantar Fasciitis, Achilles Tendinitis, Heel Pain, Calf Cramps, Foot Pain

Plantar fasciitis, Achilles tendinitis and heel spurs are diagnoses often given as an explanation for disabling heel pain. Plantar fasciitis is considered to be a species of tendinitis. Myofascial trigger points (tiny contraction knots) in overworked or poorly conditioned muscles are almost always the true cause of pain in the lower legs, ankles and feet. Inappropriate diagnoses of plantar fasciitis, Achilles tendinitis, and heel spurs are apt to be applied when the physician is uninformed about myofascial pain. Pressure applied to the arch of the foot is often the test used for determining whether you have plantar fasciitis. If it hurts to press there, the tendons and fascia in the bottom of your foot are presumably inflamed. Few practitioners are aware that this is where you will find trigger points in the flexor digitorum brevis and quadratus plantae muscles of the foot. These trigger points are typically quite tender to pressure. Their pain referral is to the bottom of the foot, particularly to the heel.

When not mislabeled plantar fasciitis, heel pain is often falsely blamed on heel spurs. Heel spurs can be present and actually not be the cause of the pain. Indisputable evidence of the harmlessness of a heel spur is when trigger point therapy stops the pain.

You may not have ever thought about it, but the eleven muscles of the lower leg are actually foot muscles. Anatomists call them extrinsic foot muscles, meaning they operate from outside the foot. The muscles in the foot itself are intrinsic foot muscles, meaning they work from inside the foot. The implication of these facts is that foot pain may not be coming from the feet themselves. You can waste a lot time rubbing and soaking your feet, if the cause of your foot pain is trigger points in your lower legs.

Most of the familiar pain of aching arches comes from trigger points in the gastrocnemius muscle of the calf. These same trigger points cause calf cramps. Unsuspected trigger points in another calf muscle, the soleus, are probably the primary cause of heel pain.

When your feet hurt at the end of the day, it may not be foot massage that you need, but calf massage! A very deep muscle in the calf, tibialis posterior, is the true source of the disabling pain and stiffness in the back of the ankle that is so often mistakenly labeled Achilles tendinitis. When this same muscle is weakened by trigger points, it allows your ankle to turn inward, making it appear that you have fallen arches. "Tendinitis" is largely a wastebasket diagnosis. Pain in or near a tendon is almost always simple referred pain from trigger points in associated muscles.

* Shoulder Pain, Frozen Shoulder, Adhesive Capsulitis, Rotator Cuff Injury

Arthritis, bursitis, tendinitis, rotator cuff injury, adhesive capsulitis, and loss of joint cartilage are the most frequently heard medical explanations for shoulder pain. X-rays, MRI's and other tests often seem to substantiate such diagnoses. Nonetheless, they are generally not the true cause of shoulder pain.

Even in the absence of objective evidence, shoulder pain alone is assumed by most physicians to be proof that the rotator cuff or the joint itself is in trouble. As a consequence, exploratory surgery, forced mobilization, and even replacement surgery for shoulder joints are commonplace and heavily promoted.

In reality, pain in the shoulder is most often nothing more serious than referred pain from myofascial trigger points (tiny contraction
in the various muscles that move the arm. Even when a shoulder joint has suffered a verifiable injury, trigger points always contribute a major part of the pain. Referred pain can be every bit as intense and debilitating as pain from a damaged joint.

Trigger points in the four rotator cuff muscles are the most frequent cause of shoulder pain. But up to twenty muscles are involved in operating the shoulder and all of them are vulnerable to strain. When a shoulder muscle is made dysfunctional by trigger points, other muscles have to compensate. Under the extra burden, each acquires trigger points in turn, until every muscle in the region is in trouble. This can lead to progressively limited movement of the arm, ending ultimately in a frozen shoulder.

Some researchers suspect that trigger points may actually be the root cause of true osteoarthritis and other kinds of joint deterioration. This is because muscles afflicted with trigger points become shortened and stiff. When this happens, even normal movement puts undue strain on muscle attachments at the joints, which can eventually result in damage to connective tissue and distortion of the joints themselves. Popping in a shoulder joint is evidence that muscles afflicted with trigger points are straining and partially disarticulating the joint.

Painkillers are ordinarily prescribed for shoulder pain, although they can be the worst kind of therapy because they don’t fix the problem; they only diminish your awareness of it. The use of painkillers risks making your problem worse by allowing you to go on with the same activities that caused the problem in the first place! Exercising and stretching a bad shoulder can also make trigger point’s worse and, in turn, worsen your pain. Trigger points are designed to protect stressed muscles from further abuse, which has often occurred in the form of overstretching in the first place. With shoulder muscles in particular, stretching and exercising should be done very cautiously, if at all, until after all trigger points have been deactivated.

Some people tolerate stretching extremely well; many others do not. Unfortunately, when stretching doesn't work, the therapist too often writes it off as the patient's non-compliance and prescribes additional stretching! Amazingly, trigger point therapy is not yet taught in most physical therapy schools.

**TMJ Disorder, Sensitive Teeth, Sinus Symptoms, Jaw Pain, Toothache, Earache, Ear Itch, Allergic Rhinitis, Eyelid Twitching**

Myofascial trigger points (tiny contraction knots) in muscles of the jaw and anterior neck are responsible for much of the pain associated with TMJ disorder. Trigger points can also be responsible for faulty closure of the teeth, popping and clicking in the jaw, dislocation of the jaw, and restriction of jaw opening. In addition, trigger points in jaw muscles are known to cause toothache and hypersensitivity to heat, cold, and touch in both upper and lower teeth. Unnecessary dental work, including needless tooth extraction, may result when these symptoms are misinterpreted. Jaw trigger points may also cause you to neglect to brush and floss sensitive teeth, which can lead to their deterioration.

Trigger points in overstressed or overused jaw muscles are often the source of earache and ear stuffiness. Surprisingly, they’re responsible for that maddening itch inside your ear that you can’t quite seem to reach. Eyelid twitching and bags under the eyes can be traced to trigger points in jaw muscles.

Trigger points in the jaw muscles also cause pain and a sense of pressure in the front of the face, under the eyes, and over the eyebrows, symptoms that are often mistaken for sinusitis. When sinus medicine doesn’t help your sinus pain, it’s a good bet that trigger points are the problem.

Trigger points in the muscles of the face, jaws and front of the neck can cause the generation of excess mucus in the sinuses, nasal cavities, and throat. They can be the simple explanation for your continuing sinus drainage, constant clearing of your throat, chronic cough, allergic rhinitis and persistent hay fever or cold symptoms. Trigger points in the temporalis muscles in your temples can cause pain and hypersensitivity in your upper teeth. Diffuse pain in the upper teeth or jaw when you chew or bite down is apt to be coming from these muscles. Your teeth may feel like they don’t fit together right.

**Angina, Costochondritis**

Chest pain diagnosed as angina, heart pain, pleurisy, and costochondritis (inflammation of the ribs) may actually be coming from myofascial trigger points (tiny contraction knots) in the muscles of the chest. Pain from these trigger points can also lead to the supposition that you have a separated rib, an ulcer, or gallbladder trouble.

Trigger points in chest muscles can cause distortions of your posture that promote shallow breathing and shortness of breath. Tenderness, pain and breathing difficulties caused by these trigger points are often mistaken for symptoms of emphysema, hiatal hernia, or lung disease. Pectoral trigger points can cause back pain and contribute significantly to development of a dowager’s hump. A complicating factor in finding the source of chest pain is the fact that it doesn’t always come from trigger points in chest muscles. It can be referred just as often from back muscles or from the scalene muscles in the neck.

It goes without saying that your chest symptoms can be signs of a true medical problem. Nevertheless, Doctors Janet Travell and David Simons, the foremost researchers into myofascial pain, believed that trigger points are the primary cause of pain and that the public suffers pain needlessly because too many doctors are still uninformed about them. Physicians who are unaware of the myofascial causes of chest pain can be led to a wide range of mistaken diagnoses and misdirected treatment, including needless, sometimes life-threatening operations.

On the other hand, when pain has a myofascial origin, diagnosis may entirely elude the physician, who then is apt to write the problem off as minor or imaginary and categorize it as untreated. Too many people grimly live with chronic pain that could be very easily treated if their doctors would simply take the time to acquire the appropriate knowledge.

**Gout, Shin Splints, Ankle Sprain, Hammer Toe, Stumbling**

Myofascial trigger points (tiny contraction knots) in overused or poorly conditioned muscles of the feet and lower legs are the true cause of most of the familiar kinds of pain in the lower legs, ankles, feet and toes.

Conventional treatments for pain in the form of painkillers, steroid shots, physical therapy, rest or surgery often prove disappointing. This is not surprising when you know that none of these treatments has any significant effect on trigger points.

Consider that the eleven muscles of the lower leg are actually foot muscles. They are the extrinsic foot muscles, meaning they operate from outside the foot. Trigger points in these muscles account for much of the pain in your ankles and feet.

An example of this is the pain in the big toe that is so often attributed to gout. In many cases the pain is actually being sent from...
trigger points in the tibialis anterior and extensor hallucis longus muscles of the front of the lower leg. The referral pattern for these trigger points includes the big toe and the head of the first metatarsal bone, the place where the toe joins the foot. The pain can feel as though it’s actually in the joint. Physicians who are unaware of these effects are likely to prescribe gout medications for this pain, even when tests fail to confirm the condition. True gout, the deposit of urate crystals in the joints, is caused by uricemia, too much uric acid in your blood. A diet of too much meat and too little water is likely to promote uricemia. Gout and the trigger points that mimic gout often coexist, and uricemia can make your trigger points hard to get rid of. A vitamin C deficiency makes both conditions hard to get rid of.

Trigger points in extensor digitorum muscles of the lower leg and the interosseous muscles of the foot can be the cause of hammertoe and claw toe. These are conditions in which the toes are cramped and drawn up and can’t be straightened either actively or passively. Permanent deformity of the foot can be the eventual result if you never find out about trigger points. Trigger point therapy can improve the condition even if it has been in place for decades. Chronic tension from trigger points in the shin muscles can result in shin splints, an extremely painful condition caused by stress on muscle attachments. Although the pain of shin splints is not the same as pain from trigger points, massage is the correct treatment, because it removes the chronic tension in the muscles and will thereby remove the pain. Shin muscles weakened by trigger points are a major cause of tripping and stumbling. Your toes tend to catch on steps and the edge of carpets, which can put an elderly person in jeopardy of falling over your own feet; trigger points can be the unsuspected cause.

Trigger points in lower leg muscles also produce most ankle pain. Many times, an ankle sprain, particularly one with little or no swelling, is nothing more than referred pain from trigger points in the peroneus muscles on the outer side of the lower leg. When a misstep strongly turns your ankle outward, these muscles are severely overstretched and trigger points form in them. If trigger point massage gets rid of the pain, it’s unlikely that you have a ligament injury.

*Arthritis, Osteoarthritis, Joint Pain and Stiffness, Joint Popping*

Arthritis is the first word that comes to mind when people have joint pain and stiffness, especially if spurs show up on X-ray. Even with such “proof,” it can be a mistake to automatically assume that the trouble is in the joint. Arthritic spurs don’t always cause pain. Nevertheless, “arthritis,” has become a virtual synonym for joint pain, applied throughout the healthcare community. The diagnosis is often based on no more evidence than your statement that an elbow, shoulder or knee hurts.

You may be surprised to learn that most joint pain comes from myofascial trigger points (small contraction knots) in nearby muscles. This is known as referred pain, and it seems to fool everybody, including most doctors and other healthcare practitioners. Treatment is not likely to succeed when the problem is wrongly assumed to be in the joint simply because it’s the site of the pain.

Some researchers believe that trigger points may actually be the root cause of true osteoarthritis. The reason for this is that muscles afflicted with trigger points become shortened and stiff. When this happens, even normal movement puts undue strain on muscle attachments at the joints, which can eventually result in damage to connective tissue and distortion of the joints themselves. Joint popping is evidence that muscles shortened by trigger points are partially disarticulating the joint.

Trigger point therapy is the most appropriate treatment for joint pain, even when genuine arthritic changes have occurred, because it goes to the source of the problem. Deactivation of trigger points stops the pain and allows the muscles to lengthen, thereby relieving strain on the joints.

You won’t find these ideas being promoted in the drug companies’ TV ads, because trigger points can’t be treated with prescription drugs. Painkillers are typically prescribed for joint pain, although they can be the worst kind of therapy because they don’t fix the problem, they only diminish your awareness of it. Painkillers invite you to go on with the same activities that caused the problem in the first place.

Physical therapy for joint pain in the form of exercise and stretching can also make trigger points worse. It’s helpful to look at trigger points as a natural mechanism whose function is to protect muscles from abuse and overuse. Trigger points can be very irritable in regard to stretching. Exercising can be equally counterproductive. Trigger points protectively weaken a muscle, but without atrophy. Normal strength returns when the trigger points have been deactivated. Stretching and exercising should be deferred until this has been accomplished.

*Back Pain, Low Back Pain, Vertebra Subluxation, Spinal Pain*

The solution for your back pain may be simpler than you’ve been led to believe. Many people are haunted by the fear that pinched nerves, compressed disks, or arthritis is causing their back pain, when there’s a good chance that their pain may be coming solely from myofascial trigger points (tiny contraction knots) in nearby muscles, and often in muscles some distance away.

Even when back pain is due to genuine problems in the vertebral column, myofascial trigger points always contribute a major part of the pain. In fact, there’s reason to believe that trigger points are the root cause of many spinal problems because of the muscle tension they maintain. Tension in spinal muscles can displace vertebrae (subluxation) and be the ultimate source of nerve and disk compression.

The reason there are so many differing opinions about the cause of back pain is that most of it is referred pain. This is especially true of low back pain. You may never find the real cause of low back pain if you look for it only in the low back. Pain in your low back can be referred from trigger points in surprising places, such as your buttocks, your stomach muscles, or even knotted up muscles in your calves. Knots in your anterior neck and pectoral muscles can cause pain in your upper back.

X-ray evidence of arthritis or compressed disks is often used to justify surgery for back pain, although it’s not uncommon to find such abnormalities in people who never suffer back pain. Pain from myofascial trigger points that remains after surgery can be greatly frustrating and frustrating to both doctor and patient. It’s disturbing to think that trigger points may have been the only thing needing correction in the first place.

Trigger point therapy is the most appropriate treatment for back pain, even when genuine spinal problems have developed, because it goes to the source of the problem. Deactivation of trigger points stops the pain and allows the muscles to lengthen, thereby relieving strain on the spine.
Physical therapy for back pain in the form of exercise and stretching can make trigger points worse. Attempts to strengthen the abdominal muscles can be especially dangerous when unsuspected abdominal trigger points are the hidden source of your back pain.

*Hip Pain, Knee Pain, Runner’s Knee, Buckling Knee, Locked Knee, Meralgia Paresthetica, Growing Pains, Phantom Limb Pain, and Restless Legs*

Arthritis, bursitis, tendinitis, ligament injury, and deterioration of joint cartilage are the usual medical explanations for hip and knee pain. X-rays, MRI’s and other tests often seem to substantiate such diagnoses. Sometimes these medical conditions are genuine, but more often than not they are mistaken diagnoses. In the absence of objective evidence, hip or knee pain alone is assumed to be proof that the joint itself is in trouble. As a consequence, replacement surgery for hip and knee joints is commonplace and heavily promoted. These surgeries are probably unnecessary in a large number of cases.

In reality, pain in hip and knee joints can be nothing more serious than referred pain from myofascial trigger points (tiny contraction knots) in the muscles of the hip and thigh. Even when a hip or knee joint has suffered a verifiable physical injury, trigger points in associated muscles always contribute a major part of the pain. Referred pain can be every bit as intense and debilitating as pain from a damaged joint.

Some researchers suspect that trigger points may actually be the root cause of true osteoarthritis and other kinds of joint deterioration. This is because muscles afflicted with trigger points become shortened and stiff. When this happens, even normal movement puts undue strain on muscle attachments at the joints, which can eventually result in damage to connective tissue and distortion of the joints themselves. Popping in a hip or knee is evidence that muscles afflicted with trigger points are partially disarticulating the joint. Since trigger points make it difficult for muscles to lengthen, they can be the reason for stiffness in hips and knees. Trigger points protectively weaken muscles too, causing hip and knee weakness and unexpected buckling or collapse. If athletes knew about the effects of myofascial trigger points and took the time to do the appropriate self-treatment, there would be many fewer sports injuries.

Quadriceps trigger points are responsible for an amazing amount of trouble commonly attributed to the knee itself. A locked knee, for example, is usually due to trigger points in the vastus lateralis, the outer part of the quadriceps. The quadriceps is the first place to look for the cause of knee pain. A case of jumper’s or runner’s knee is ordinarily not as critical a problem as it seems; it’s usually just referred pain from overused quadriceps.

Restless legs can also be a simple matter of trigger points in overused (or under used) thigh muscles. The age-old mystery of growing pains in the legs and knees of children can be traced to trigger points. Trigger points can be the cause the phantom limb pain felt by amputees.

Trigger points in thigh muscles can make the inner knees so hypersensitive to pressure that it’s uncomfortable to lie on your side with your knees together. Trigger points can also cause thigh muscles to compress the sensory nerve that supplies the front of the thigh. Superficial numbness and tingling is the result, which will draw a diagnosis of “meralgia paresthetica,” an elaborate way of saying that you have numbness and tingling in your leg. Like too many diagnoses, it leaves the cause unnamed. Painkillers are typically prescribed for hip and knee pain, although they can be the worst kind of therapy because they don’t fix the problem; they only diminish your awareness of it. Painkillers invite you to go on with the same activities that caused the problem in the first place. In this way, pain medications may actually contribute to the high incidence of sports injuries.

Physical therapy for hip and knee pain in the form of exercise and stretching can make trigger points worse and, in turn, worsen the pain. These forms of therapy are useful, but only after trigger points have been deactivated. Unfortunately, trigger point therapy isn’t taught yet in very many physical therapy departments.

*Peripheral Neuropathy, Numbness, Tingling, or Burning Sensations in Hands or Feet*

Peripheral neuropathy is the impressive label given to numbness, tingling, burning, and hypersensitivity in the hands or feet. These abnormal sensations are not at all unusual and frequently come about when the sensory nerves that supply these areas are somehow being squeezed or compressed.

Overworked or otherwise traumatized muscles that have been shortened and tightened by myofascial trigger points (tiny contraction knots) are very often the direct cause of this nerve compression.

The muscles involved in hand numbness can be in the chest, anterior neck, upper back, shoulder, arm or forearm. Foot numbness can be traced to muscles of the lower back, buttocks, lower leg and the foot itself.

Trigger points can also cause a muscle to clamp down on the blood flow in an artery, making the hands or feet feel cold. Blood flow in a vein can be impeded too, which can be the reason for swelling in your wrists and hands or ankles and feet. When it’s the hands that are affected, the combined effects of these neurological and vascular compressions can cause you to unexpectedly drop things.

When physicians are uninformed about trigger points, these symptoms are likely to be blamed on a neurological disease, a compressed disk, a pinched nerve in the spine, or subluxation of a vertebra. These things are very real possibilities, but it’s ordinarily just myofascial trigger points that are causing all the trouble. Even when diabetes or some other legitimate medical problem exists, trigger points can still be playing a significant part of your “peripheral neuropathy.”

Trigger points should be at the top of the list during any examination for numbness and other abnormal sensations in the hands or feet. When healthcare practitioners have had adequate training and experience, trigger points are easy to locate and treat.

*Tendinitis and Bursitis*

Tendinitis and bursitis are very commonly named as the cause of pain in or near a joint. These terms are greatly overused. In all likelihood, your supposed tendinitis or bursitis is nothing more than pain referred from myofascial trigger points (tiny contraction knots) in nearby muscles that have been subject to strain or overwork.

You probably already know that conventional treatments for bursitis and tendinitis can leave you hurting. Anti-inflammatory medications, painkillers, steroid shots, stretching exercises and rest are not appropriate therapy when trigger points are the cause of the problem.

Pressure applied to the site of the pain is used as a test for tendinitis and bursitis. If it hurts to press there, a tendon or bursa is presumed to be “inflamed.” It’s pretty convincing unless you happen to know that trigger points typically refer pain and tenderness to the site of their attachments; in other words, to their tendons and bursas.

True tendinitis is indeed inflammation in a tendon, presumably a result of microscopic tears in the tendon suffered through injury or
Nerve compressions occur at the thoracic outlet when trigger points in the scalene muscles in the neck keep the first rib pulled up against the collarbone. This squeezes the brachial plexus, the thick bundle of nerve fibers that supply the arm and hand, which passes through this area. Pressure on these nerves due to scalene trigger points is often the only cause of numbness and tingling in the hands and fingers. This same action by tight scalenes can also compress the subclavian vein at the thoracic outlet, impeding the return of blood and lymph from the arm and causing swelling in the wrist and hand. This in turn may be the reason for any tightness in the carpal tunnel. When this happens, carpal tunnel surgery may indeed relieve the symptoms in the hand to a degree, but it doesn't treat the real cause. It's the thoracic outlet that needs attention, not the carpal tunnel. Trigger points should be at the top of the list during any examination for pain, numbness and other abnormal sensations in the hands. When healthcare practitioners have had adequate training and experience, trigger points are easy to locate and treat.

*Fibromyalgia and Chronic Pain*

Medical research has shown that many cases of chronic pain are actually caused by myofascial trigger points, or small contraction knots, in overused or otherwise traumatized muscles. Pain clinic doctors skilled at detecting and treating trigger points have found overuse. Bursitis is inflammation of a bursa. (Bursas are fluid filled sacs that help reduce friction between tendons and bones.)

Inflammation is indicated by pain, redness, swelling and increased temperature in the tissue overlying an injured tendon or bursa. In the absence of these indications, inflammation does not exist. Pain alone is not an indication of inflammation.

Even when inflammation is present, trigger points in muscles can still be the ultimate source of the problem. Irritation of connective tissues by the unrelied muscle tension produced by trigger points can be the direct cause of the inflammation and degenerative changes that develop. When this is the case, trigger point therapy is the appropriate treatment, because it goes to the source of the trouble.

**Thoracic Outlet Syndrome**

When confronted with pain, numbness, tingling, stiffness, burning or swelling in the hands and fingers, the universal tendency nowadays is to immediately apply the label "carpal tunnel syndrome," with very little consideration given to other possible causes.

Few people realize that myofascial trigger points (tiny contraction knots) in the scalene muscles of the front of the neck are almost always involved in causing pain and other abnormal sensations in the hands.

With severe symptoms, trigger points in as many as thirty-eight muscles of the neck, chest, upper back, shoulder, upper arm, forearm and hand may be involved in causing symptoms in the wrist, hand and fingers. Overworked muscles of the forearms are one of the more obvious places to look. When primary treatment is directly at locating and deactivating trigger points in these areas, more extreme measures can usually be avoided.

Unfortunately, trigger point therapy isn't widely known yet in the healthcare community. There's great resistance to changing, or even questioning, firmly established conventional treatments for carpal tunnel syndrome, although they frequently give far less than satisfactory results. Even after surgery, cortisone shots, and physical therapy, symptoms often remain unchanged and sometimes are made worse. Prescription drugs, wrist supports, prescribed rest and ergonomic improvements in the workplace have little effect on trigger points in overworked muscles.

You are familiar with the medical explanation for carpal tunnel syndrome. The median nerve and several tendons pass through the carpal tunnel in the wrist on their way to the fingers and hands. The median nerve supplies the radial side of the hand (the thumb, first finger, the web connecting them, and part of the second finger). Compression of the median nerve can cause numbness, pain and tingling in these areas when the carpal tunnel is swollen or otherwise restricted.

Although numbness and tingling in the hands are clearly the effects of nerve compression, the problem doesn't often originate in the carpal tunnel. The critical nerve impingement usually occurs at the thoracic outlet. This is the opening under your collarbone through which the nerves and blood vessels pass on their way to the arm.

Nerve compressions occur at the thoracic outlet when trigger points in the scalene muscles in the neck keep the first rib pulled up against the collarbone. This squeezes the brachial plexus, the thick bundle of nerves that supply the arm and hand, which passes through this area. Pressure on these nerves due to scalene trigger points is often the only cause of numbness and tingling in the hands and fingers. This same action by tight scalenes can also compress the subclavian vein at the thoracic outlet, impeding the return of blood and lymph.
that they’re the primary cause of pain roughly 75% of the time and are at least a part of virtually every chronic pain problem.

Trigger points are known to cause headaches, neck and jaw pain, low back pain, carpal tunnel syndrome, and all the various kinds of joint pain mistakenly ascribed to arthritis, tendinitis, bursitis, or ligament injury. Trigger points cause problems as diverse as earaches, dizziness, nausea, heartburn, false heart pain, heart arrhythmia, tennis elbow, and genital pain. Trigger points are sometimes the cause of sinus pain and congestion. They may play a part in chronic fatigue and lowered resistance to infection. And because trigger points can be responsible for long-term pain and disability that seem to have no means of relief, they can cause depression.

Even fibromyalgia, which is known to afflict millions of people, is thought to have its beginning with trigger points. In many instances, this mysterious diagnosis is applied incorrectly. According to Dr. David Simons, the foremost living authority on myofascial pain, “It is becoming increasingly clear that nearly all fibromyalgia patients have myofascial trigger points that are contributing significantly to their total pain problem. Some patients are diagnosed as having fibromyalgia when in fact they only have much more treatable multiple trigger points.”

Trigger points are often confused with "tender points," one of the official criteria for a diagnosis of fibromyalgia. There are clear guidelines for distinguishing trigger points from tender points: (1) A trigger point needs firm pressure to elicit pain, while a tender point is so painful it can hardly be touched. (2) Tender points cause only local pain; they don’t refer pain to other sites as trigger points do. (3) Trigger points are found predictably only in certain places; tender points can occur anywhere and everywhere. Because genuine fibromyalgia sufferers usually have both types of “points,” their states of pain can be improved markedly by careful treatment of their trigger points.

*Headache, Eye Pain, Migraine Headache*

Myofascial trigger points (tiny contraction knots) in overstressed or overworked muscles are the hidden and unsuspected cause of the common headache, no matter what label it has been given. This will contradict much of what you’ve always been told about the cause of headaches. Trigger points are the usual cause of tension headaches, cervicogenic headaches, cluster headaches, vascular headaches and migraine headaches. It’s a 19th century notion that headaches result from contraction of the muscles or blood vessels in the scalp. Headaches rarely have anything to do with the head itself and usually don’t have a true medical cause, unless a result of disease or injury. Virtually all common headaches are simply pain referred from trigger points in muscles of the jaw, neck, and upper back. This physical distance between cause and effect is why headaches have always been so mysterious and hard to deal with. Conventional treatments for pain so often fail because they focus on the pain itself, treating the site of the pain while overlooking and failing to treat the cause, which may be some distance away. Headaches are a classic example of referred pain.

Worse than routinely treating the site of the pain is the pharmaceutical treatment of the whole body for what is usually a local problem. Painkilling drugs, the increasingly expensive treatment of choice these days, give us the illusion that something good is happening, when in reality they only mask the problem. Most common pain, like headaches, is a warning—a protective response to muscle overuse or trauma. When pain is seen in its true role as the messenger and not the affliction itself, treatment can be directed to the cause of pain, with greatly improved results. Many supposed “headache triggers” actually have their effect by activating your latent trigger points. A bad cough can do it; so can a viral infection, a hangover, overexertion, analgesic rebound, and too much consumption of sugar. Trigger points are also the operational element in headaches set off by allergic reactions, chemical withdrawal, physical trauma, and emotional tension. Even the frustrating, unexplainable headaches that come with fibromyalgia can be shown to be due largely to the presence of myofascial trigger points.


**Finger Pain, Stiff Fingers, Knuckle Pain, Thumb Pain, Wrist Sprain, Writer's Cramp, Heberden's Nodes**

The problem with having pain, numbness, tingling, stiffness, burning or swelling in your wrists, hands, fingers, and thumbs is that it will be too quickly labeled arthritis, bursitis, tendinitis, carpal tunnel syndrome, or a neurological defect. Too often these are mistaken diagnoses.

Myofascial trigger points (tiny contraction knots) in overworked muscles are almost always the real cause for pain and other abnormal sensations in the wrists, hands, fingers, and thumbs. These symptoms usually originate with trigger points in muscles of the neck, chest, upper back, shoulders, upper arms and forearms. It's classic referred pain and it throws everybody off, including many pain specialists.

Because of the displacement of symptoms, relief obtained by treating the wrists and hands with magnets, wrist splints, pressure straps, electro-stimulation, ultrasound, and acupuncture is likely to be ineffective, or temporary at best. Similarly, since painkillers only mask symptoms and never address the cause, the benefits of pain medication are felt only while the drug is in your blood stream. It's a common experience that even after thousands of dollars worth of tests, medical treatment, and physical therapy, symptoms often remain unchanged and sometimes are made worse. Healthcare would be greatly improved in general, if physicians and other practitioners would simply learn some of the basic facts about myofascial pain.

For example, wrist pain, which ordinarily feels like a wrist sprain, almost always comes from trigger points in forearm muscles. Finger pain, thumb pain, and pain in the web of the thumb also come most often from muscles of the forearm. It's not uncommon to trace the trouble to more distant muscles in the shoulder, neck and upper arm.

Trigger points in the extensor digitorum, a forearm muscle that operates the fingers, are the prime cause of stiff fingers, also sending pain to the outer elbow and the second knuckle of the third and fourth fingers. Knuckle pain referred from this muscle is easily mistaken for the pain of arthritis.

The hand muscles themselves can be the unrecognized source of problems in the hand. Fixing writer's cramp is often only a matter of finding the hand muscles that have the trigger points. Thumb muscles and the interosseous muscles between the bones of the hand are the usual source of writer's cramp.

Heberden's nodes, bumps on the sides of the last knuckles, also originate with trigger points in overused interosseous muscles. It is possible to eliminate Heberden's nodes with trigger point therapy if intervention comes early enough. Even if fully developed, nodes can often be reduced. The same stresses in the interosseous muscles that create nodes on the knuckles is believed to contribute to the development of arthritis in the finger joints.

**Neck Pain and Stiffness**

Many people have been told that a pinched nerve, a compressed disk, arthritis or a displaced cervical vertebra is the cause of their neck pain. In reality, their pain may be due solely to referral from myofascial trigger points (tiny contraction knots) in muscles of the upper back and shoulders.

X-ray evidence of arthritis or compressed disks is often used to justify surgery for neck pain, although such surgery is only occasionally successful in resolving the pain. It's disturbing to think that trigger points may have been the only thing needing attention in the first place. There's reason to believe that trigger points are the root cause of many genuine spinal problems because of the abnormal muscle tension they can maintain on the vertebrae.

When shortened and tightened by trigger points, the small multifidi and rotatores muscles that interconnect the neck vertebrae can pull individual vertebrae out of place. In addition to displacing vertebrae, chronic tension in spinal muscles can cause compression of nerves and disks. Trigger points in these tiny muscles are the only local cause of myofascial pain in the neck. Ironically, trigger points in the larger neck muscles, the splenius and semispinalis muscles, typically cause headaches, not neck pain. This is the reason that neck massage can feel good but not get rid of neck pain.

Neck pain and stiffness are caused primarily by trigger points in the upper back and shoulders. This physical distance between cause and effect is why neck pain has always been so frustrating and hard to get rid of. Throughout the body, conventional treatments for pain so often fail when they focus on the pain itself, treating the site of the pain while overlooking and failing to treat the cause, the myofascial trigger points that may be some distance away. You may never find the real cause of your neck pain if you look for it only in the neck.

Even though you may escape the surgeon, conservative therapy for neck problems can be just as ill conceived and misdirected. Many people have discovered to their great regret that physical therapy's ubiquitous stretching exercises can make neck pain worse, not infrequently resulting in an excruciating crisis. Trigger points are a natural phenomenon, meant to protect muscles from continuing abuse. It's not unusual for them to interpret stretching as abuse, actively resist it, and end by increasing your pain.

Worse than inappropriately treating the neck itself is the pharmaceutical treatment of the whole body for what is clearly a specific local problem. The practice of medicine employs far too many of these convenient shotgun type remedies, with their inescapable side effects. Prescriptions for painkillers, anti-inflammatories and muscle relaxants suggest that the practitioner has little understanding of trigger points and referred myofascial pain.

Painkilling drugs for neck pain are particularly unwise, because they give you the illusion that something good is happening, when in reality they only mask the problem. Painkillers may actually exacerbate a myofascial problem by allowing you to continue abusing muscles that are already in trouble. Pain is a message. It's not good medicine to kill the messenger and ignore the message.

**Sciatica, Piriformis Syndrome**

The symptoms of pain, numbness, tingling, burning, and hypersensitivity felt in your low back, buttocks, and hips, and down your legs into your ankles and feet are collectively known as sciatica.

In the medical world, sciatica is routinely assumed to be caused by pressure on the sciatic nerve as a result of a compressed disk or other spinal abnormality. Surgery on the spine in a search for the cause of presumed sciatic nerve impingement is very common, even though it regularly fails to erase sciatic symptoms.

The truth is that sciatica is most often simply a referral of symptoms from myofascial trigger points (tiny contraction knots) in strained or overworked gluteus minimus muscles in the buttocks.

The piriformis muscles of the buttocks, when affected by trigger points, is the most likely cause of any actual sciatic nerve compression. This pain is harsher and more electric than symptoms referred by gluteus trigger points and is felt in the back of the thigh, the calf, and the sole of the foot. There may also be other abnormal sensations, such as numbness, tingling, burning, or hypersensitivity, in any of these areas.

A piriformis muscle that is shortened and swollen by trigger points can also compress numerous other nerves and blood vessels coming...
out of the pelvis. This can result in a sense of swelling in the buttocks, leg, calf, and foot. In addition, a tight piriformis muscle can impinge upon the pudendal nerve, causing impotence in males and pain in the groin, genitals, or rectal area of either gender.

Piriformis muscles compressing gluteal nerves and blood vessels are believed to be responsible for gluteal muscle atrophy, wherein one or both buttocks waste away.

For decades, the medical profession has known this particular group of sciatic symptoms as piriformis syndrome, although the cause of the piriformis enlargement was never really understood. Surgical release of the muscle for the treatment of sciatica was once a common treatment. Amazingly, this operation is still performed by surgeons who are unaware of the effects of myofascial trigger points.

Medical solutions for sciatica are needlessly expensive and have an high rate of failure. Trigger points should be at the top of the list during any examination for pain, numbness and other abnormal sensations in the hips and legs. Wider recognition of the myofascial causes of sciatica could eliminate many unnecessary surgical operations.

*Repetitive Strain Injury*

The chronic overloading of muscles in work situations is so common nowadays that it has earned a number of imposing labels—repetitive strain injury, overuse syndrome, cumulative trauma disorder, repetitive motion injury, occupational myalgia, etc. These terms look good on an insurance claim, but none of them mean anything other than that you’ve worked a group of muscles beyond their endurance and now they’re making you pay for it.

The pain that accompanies repetitive strain actually comes from myofascial trigger points (small contraction knots) in overused or abused muscles. Very often, the pain is not felt in the afflicted muscles, but instead is sent to some other site, typically a joint. This is known as referred pain, and it seems to fool everybody, including most physicians and other practitioners whose job it is to treat pain. Regretably, long accepted kinds of medical treatment frequently make repetitive strain injuries worse by inadvertently creating more trigger points and more myofascial pain. The immobility imposed by braces, slings, and casts keeps muscles in a shortened, inactive state, which promotes the development of trigger points. Surgery can leave long-term residual pain when trigger points develop in muscles that have been cut, stretched, or otherwise traumatized.

Steroids injected into painful joints, though seeming to bring relief, are not an appropriate treatment when the pain is of myofascial origin. The trouble is that the patient, thinking he has been cured, goes unmistakably on with the same stressful activity that caused the problem in the first place. Steroids themselves, if overused, can seriously degrade the connective tissue of bones, muscles, ligaments, and tendons.

Pain medications continue to be the treatment of choice by physicians and patients alike because they work so well in reducing the awareness of pain. But pain must always be viewed as a warning that something is wrong and needs attention: it’s not good medicine to kill the messenger and ignore the message.

For many people, physical therapy, instead of helping, only adds to their trouble. The stretching exercises that have become almost a religion in the United States and other parts of the world can actually irritate trigger points and make them resistant to therapy. Incredibly, there are physicians and physical therapists who still deny the existence of trigger points, even though they have been photographed through the electron microscope, can be felt with the fingers and have been written about in medical journals for over sixty years!

While it’s important to examine the ergonomic issues in a work situation that cause overuse of muscles, ergonomic improvements are not enough. Once you’ve got the problem, improving your work habits won’t make the pain go away. Muscles need direct therapy for the abuse they’ve suffered. If they get it when they need it in the form of trigger point therapy, you can go right on working and your body will adapt.

*Side Stitch (Side Pain, Side Ache)*

The incapacitating stitch in the side that afflicts runners and other athletes is most often simply referred pain from myofascial trigger points (tiny contraction knots) in overworked serratus anterior muscles. These muscles are located under your arms, just down from the armpit. Serratus anterior muscles aid inhalation by assisting expansion of the ribs when you are breathing strenuously. Pain from trigger points in a serratus anterior muscle is usually felt in the side and in the mid back at the lower end of the shoulder blade. Typically, you can’t take a deep breath without pain, nor can you exhale completely. Diaphragmatic breathing hurts, so you’re limited to shallow chest breathing. The diaphragm itself is not involved as often in producing the side stitch as popular opinion would suggest.

When serratus anterior muscles are in trouble, additional stress is put on the scalene, sternocleidomastoid, and serratus posterior muscles, all of which aid in forced inhalation. This can result in a growing cascade of myofascial symptoms, from headaches and jaw pain to dizziness and numb hands, making a whole list of mistaken diagnoses possible.

The serratus anterior is an interesting muscle, in that it has a dual function. In addition to being an auxiliary breathing muscle, it also rotates the shoulder blade to position it for raising your arm. Without the serratus anterior, you wouldn’t be able to raise your arm above shoulder level. Since the serratus anterior is so active, not only in strenuous breathing, but also in movements of the arm and shoulder, it’s particularly vulnerable to overuse in tennis, swimming, running, chin-ups, push-ups, weight lifting, and workouts on the pommel horse or the rings.

You can find the primary serratus anterior trigger point on the most prominent rib on your side, about three fingers widths straight down from your armpit. Generally, this will be the site of greatest tenderness. When this trigger point is very active, you won’t like touching it. Luckily, it doesn’t take much pressure to have a beneficial effect. Be aware, however, that trigger points can exist on any of the nine ribs this muscle attaches to. If you have trouble getting rid of the pain in your side, search the whole rib area under the arm, clear up into the armpit.

The fingertips can be used for massage of serratus anterior muscles, but they will tend to tire quickly. To save your fingers, try using a tennis ball against the wall. Or just hold the ball in your hand and pull it slowly across the trigger point. A few slow, deep strokes across serratus anterior trigger points can give immediate relief.

*Tennis Elbow (Lateral Epicondylitis)*

In the traditional medical view, tennis elbow (lateral epicondylitis) is a form of tendinitis; it presumes that the tendons around your elbow have suffered microscopic tears through injury or overuse. If the diagnosis of tendinitis is correct, however, you should expect to see evidence of inflammation around the elbow, as the body attempts to repair the damaged tissue. Inflammation is characterized...
by redness, swelling, pain and increased heat at the site. Without these signs, tendinitis is not likely to be the problem.

Sadly, the term "tendinitis" has become a virtual synonym for pain. The diagnosis is usually based on no more evidence than your statement that your elbow hurts. Doctors Travell and Simons, in their well-known medical text on myofascial pain, state that trigger points in the forearm muscles, not tendinitis, are the primary cause of pain in the elbow. When trigger point therapy provides relief, tendinitis can be quickly ruled out.

Anti-inflammatory medications, painkillers, steroid shots, stretching exercises and rest are the usual prescriptions for tennis elbow, although none of these things are adequate therapy for trigger points.

Rest is always recommended for tennis elbow, but it's not the best therapy when trigger points are the cause of the pain. Rest may lull trigger points into a quiet, latent state, but it doesn't get rid of them. When you resume whatever activity caused the tennis elbow in the first place, the pain comes right back, rarely diminished in the least. Elbow splints or braces inactivate the elbow and give relief while they're in place, but they only serve as a short-term solution. Immobility can actually make trigger points worse and ultimately increase your pain.

On the other hand, activity can be just as bad for tennis elbow if it involves overuse of the arms, hands and fingers. Physical therapy can even have a bad outcome if exercising and stretching are prescribed. A muscle afflicted with trigger points actively resists stretching because of the risk of overstretching the muscle and straining its attachments.

A painful elbow can also appear to be weak, but exercising for the purpose of strengthening it is not only ineffective but it is unnecessary. Myofascial trigger points temporarily weaken muscles that are associated with the elbow as a means of protection from further overuse or abuse. There is no atrophy. Full strength ordinarily returns with normal activity within a short time after trigger points are deactivated.

If you actually have genuine tendinitis and the accompanying inflammation, trigger points in muscles can still be the ultimate source of the problem. Muscle attachments at the elbow can be irritated by the unrelieved tension that trigger points produce in muscles. This can be the direct cause of the inflammation and degenerative changes that develop in the elbow. Even when inflammation is proven to exist, trigger point therapy is the most appropriate treatment, because it goes to the source of the trouble.

Seven muscles in the shoulder, upper arm and forearm can have trigger points that send pain to the outer elbow. Inner elbow pain can come from any one of five muscles in the chest, upper back and upper arm.