

Massage Therapy for Shoulder Pain



Perfect Spot No. 14, The Most Predictable Unsuspected Cause of Shoulder Pain

Paul Ingraham • Aug 10, 2016 • 10m read



Trigger points (*TrPs*), or muscle “knots,” are a common cause of stubborn & strange aches & pains, and yet they are under-diagnosed. The 14 Perfect Spots ([jump to list below](#)) are trigger points that are common & yet fairly easy to self-treat with massage — the most satisfying & useful places to apply pressure to muscle. For tough cases, see the [advanced trigger point therapy guide](#).

Pain Location

any part of the shoulder, and upper arm

Problems

shoulder pain

Related Muscles

infraspinatus, teres minor

[“Big Red Books” Reference](#): Volume 1, Chapter 22

see [chart of all spots](#) below

I avoided adding Spot 14 to this series for many years, because it’s a bit tricky to find. But precision is not required: although there is one specific spot that’s especially good, nearly anywhere under the ridge of bone on the shoulder blade is worthwhile, and often a

surprising key to pain and stiffness everywhere else in the shoulder, *especially* all the way around on the other side, facing forward.

Spot 14 is the site of my best treatment success stories in a decade of professional massage. I tell the whole thing in [another article](#). ¹ Here's the short version: my wife's uncle, tough as an old boot, was laid low by a toothache-like misery in the *front* of his shoulder, but after just a couple minutes of rubbing Spot 14 on the *back* of his shoulder, he was completely fixed ... in less time than it takes me to make coffee. He spent that weekend swinging his arm around, chuckling, and saying, "Well, damn, ain't that something!" He never had that problem again.

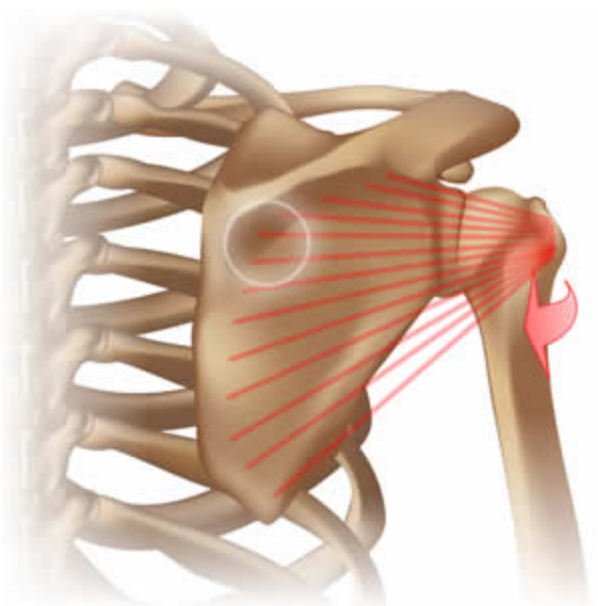
For most people, Spot 14 is a just pleasant surprise: a "secret" way to ease shoulder tension that almost no one has a clue about until they feel it, but after that it seems obvious. Learning about Spot 14 is a great way to get a reputation for magic hands.

How do you find Perfect Spot No. 14?

To qualify for "perfection," a satisfying spot for massage should be both easy to get to *and* worthwhile. It is easy to get to the *neighbourhood* where Spot 14 lives. It's just hard to find the exact address, which is the most worthwhile.

The neighbourhood is the triangular shoulder blade. Finding the infraspinatus muscle is basically as easy as touching the shoulder blade. That bone is mostly covered by the infraspinatus muscle, which is under (*infra*) the ridge (*spine*) of bone. The shoulder blade's ridge of bone is roughly horizontal and spans the full width — it's an easy bony feature to find. (There is a *supra*-spinatus muscle above it, but it's much smaller and hidden under a thick layer of trapezius.) The infraspinatus is large, flat and mostly just below the skin (or a paper thin part of the trapezius).

The entire muscle really is worth massaging, more satisfying than many other muscles, "good" for massage. But the top edge is "better" for massage. And "best"? Perfect even? Spot 14 tends to be quite a small, specific patch of muscle at one end of that strip, closest to the middle of the back: the upper, inner "corner" of the shoulder blade, just under the ridge. There really is one spot here that is particularly, profoundly sensitive in many people, but you can be *right beside it* and no one is the wiser — it usually takes some fairly detailed fingertip and thumbtip exploration to "nail it." On the bright side, I think it's a noteworthy spot in easily 90% of the population, so the search probably won't be in vain.



And if you miss it? Luckily, the rest of the muscle rarely disappoints. See below for “closely related spots.”

This schematic shows how the fibres of the infraspinatus fill the space below the spine of the scapula & converge on a point on the upper arm. When they contract, they spin the arm in its socket (arrow).

What does Perfect Spot No. 14 feel like?

More than any other perfect spot in this series, Spot 14 is obscure *until you feel it*. Spot 14 itself rarely aches or feels stiff, in my experience. Instead, people feel pain and tightness well *lateral* to Spot 14. Spot 14 lurks so far towards the inner edge of the shoulder blade that it almost doesn't seem like a *shoulder* spot, but that's its secret: rub it firmly, and almost anyone will feel the sensation spread laterally and penetrate through and around the rest of the shoulder.

Like most trigger points, Spot 14 will feel raw and burning if you are too hard on it, but it usually produces a sickly ache. Penetrating referral to the front of the shoulder can be surprisingly specific and isolated — almost as if the shoulder is being touched in two different places at once.

How do you treat Perfect Spot No. 14?

Not only is this spot a bit tricky to find, it's also hard to *reach*. If you're doing self-massage, this significantly increases the difficulty level. It virtually requires a couple tips and tricks. Specifically, you really need just the right kind of ball — fairly firm and small for accuracy, and a bit grippy so that you can easily trap it between your shoulder blade and a wall without it slipping. Most toy / dollar stores have small bouncy rubber balls. It should be about 2–3 centimetres in diameter (small enough to be accurate, large enough that it doesn't get “lost” in the tissue). These are just about ideal, although they can be a little bit too hard for some people. A squash ball is a perfect way to start off more gently, but it's also a little too soft to finish the job. So you really want both: a squash ball to start, a harder rubber ball once the tissue is warmed up.

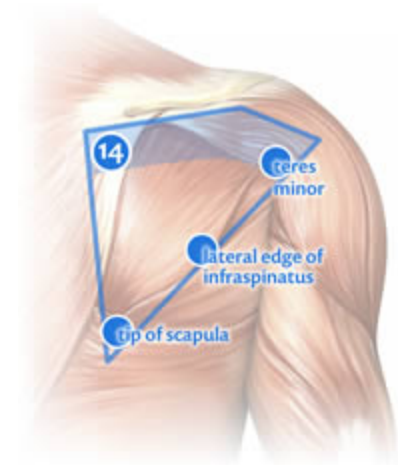
And then you need some practice. It's not rocket science, but it won't go smoothly the first time you do it either. It's almost impossible for the average person (who has never really even thought about anatomy before, let alone studied it) to accurately explore muscle this way. I've watched people try. They drop the ball. It ends up on the other side of their back. Even if they get in into the right area, it quickly moves — control comes only with more practice.

But with that practice, it's no big deal. It just takes a few tries to start to get the hang of it.

The infraspinatus is not a thick muscle. You're pinching a thin layer of muscle between skin and bone. Gentleness is strongly advised, especially at first.

Closely related spots

Teres minor: I explained above that it's worthwhile to massage anywhere under the ridge of bone on the shoulder blade. In fact, you can keep right on going towards the outside edge until you fall off it ... and then you're massaging the teres minor muscle, a close cousin of infraspinatus in the "crotch" where the arm meets the back. In terms of sensation, these two muscles are nearly indistinguishable — both often produce deeply, sickly aches throughout the shoulder. This is true of all four of the deep shoulder muscles, the infamous "rotator cuff," but the infraspinatus and the teres minor are the two that are reasonably easy to get to. ²



The approximate location of Spot 14 & friends in the infraspinatus triangle. The pale blue band across the top indicates the most worthwhile area.

Lateral edge of infraspinatus: another noteworthy spot to massage is the lateral edge of the infraspinatus muscle. The muscle fibres are parallel to the edge of the bone, and are fairly thick and easy to feel. Push on them perpendicularly, like you're trying to push them across the shoulder blade, towards the middle of the back. The sensation comes not just from the point of contact, but from the stretch.

Tip of the shoulder blade: the very bottom of the scapula is an easy spot to find. The shape of the bone there is prominent. As mentioned above, you can make it pop out clearly by putting the hand behind the back. The infraspinatus muscle covers the entire shoulder blade, right down to this tip. The fibres are thin where they anchor to the bone, and they don't seem like much, but don't let that fool you: even gentle pressure can feel quite potent here.

The role of Spot 14 in "frozen" shoulder

A true case of frozen shoulder (**adhesive capsulitis**) involves a mysterious pathological process, and cannot be reliably treated by any means, massage or otherwise, and many attempts to treat it will simply make things worse. ³ That said, some of its *symptoms* may be effectively treatable. Much of the pain and stiffness patients experience can be temporarily, partially relieved by shoulder massage in general and Spot 14 in particular.

Although that falls short of a miracle cure, many frozen shoulder victims are grateful for any relief. It probably beats pain killers (but I'm guessing — no one has studied it).

Many people have claimed therapeutic victory over frozen shoulder with massage and manual manipulation alone. I just don't believe it. What I do believe is that some cases of severe shoulder pain are simply mistaken for frozen shoulder — somewhat like "migraine" is incorrectly used as a synonym for any bad headache. This leads to some great cures for surprisingly yielding cases of supposedly "frozen" shoulder. The anecdote I gave at the top of the article is a good example of a case that could easily have been misdiagnosed as adhesive capsulitis.

The role of Spot 14 in rotator cuff injuries

The infraspinatus is part of the infamous rotator cuff — a group of four muscles that surrounds the ball part of the ball-and-socket shoulder joint. It's a complicated muscle group that stabilizes and manages fine control of shoulder movements, and it often gets hurt: rotator cuff tears (muscle strains) and other problems are common here.

Trigger points often go along with these problems, sometimes complicating or even replacing them. (This is likely what had happened to my wife's uncle, from the story at the beginning of this article.)

People may start out with a straightforward rotator cuff tear, but as that heals symptoms may still be produced by trigger points that cropped up after the injury: out of the frying pan of injury into the fire of trigger points. This may be the explanation for unusually persistent pain after an injury. It's not that the *injury* isn't healing, but that it's gradually been replaced by trigger point pain, or greatly exacerbated by it. And so massage of the rotator cuff — and the infraspinatus in particular — may provide surprisingly easy relief from stubborn shoulder "injuries." Certainly it's worth a try.

What's new in this article?

2016 — Added a photograph of small massage balls. Added a new section about rotator cuff injuries. Miscellaneous editing. Started logging updates.

2013 — Publication.

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About Paul Ingraham



Headshot
of Paul
Ingraham

I am a science writer in Vancouver, Canada. I was a Registered Massage Therapist for a decade and the assistant editor of ScienceBasedMedicine.org for several years. I've had many injuries as a runner and ultimate player, and I've been a [chronic pain patient myself](#) since 2015. [Full bio](#). See you on [Facebook](#) or [Twitter](#), or subscribe:

Notes

1. Ironically, the other article is an article about *doubting the existence* of trigger points. It's interesting. Complicated. But interesting. See: [Trigger Point Doubts](#).
2. The other two, the supraspinatus and subscapularis, are both buried deep under other muscles. A subscapularis massage is literally an armpit massage: a therapist must press straight into the armpit, and there's a maze of difficult anatomy there. You could easily annoy the brachial nerve if you're not careful, for instance.
3. Bahr R, Mæhlum S. [Clinical guide to sports injuries](#). Human Kinetics; 2004. "The fact that both surgical and conservative treatment will worsen the course must not be overlooked. The reason why treatment is ineffective is not known. ... The natural history of the condition is typically benign, and attempted interventions are generally ineffective and may worsen the condition " (p7).

Appendix A: Is trigger point therapy too good to be true?

Trigger point therapy isn't too good to be true: it's just ordinary good. It can probably relieve some pain cheaply and safely in many cases. Good bang for buck, and little risk. In the world of pain treatments, that's a good mix.

But pain is difficult and complex, no treatment is perfect, and there is [legitimate controversy about the science of trigger points](#). Their nature remains somewhat puzzling, and the classic image of a tightly "contracted patch" of muscle tissue may well be wrong. What we do know is that people hurt, and it can often be helped.

The Perfect Spots are based on a decade of my own clinical experience as a massage therapist, and years of extensive science journalism on the topic. Want to know more? This is the tip of the iceberg. I've written [a whole book about it](#) ...

Appendix B: Quick Reference Guide to the Perfect Spots

This index is also available [on its own page](#).

1 For headache, neck pain

Under the back of the skull must be the single most pleasing and popular target for massage in the human body. No other patch of muscle gets such rave reviews. It has everything: deeply relaxing and satisfying sensations, and a dramatic therapeutic relevance to one of the most common of all human pains, the common tension headache. And no wonder: without these muscles, your head would fall off. They feel just as important as they are. (Click/tap heading to read more.)

for pain: almost anywhere in the head, face and neck, but especially the side of the head, behind the ear, the temples and forehead

muscle(s): suboccipital muscles (recti capitis posteriores major and minor, obliqui inferior and superior)

2 For low back pain

This Perfect Spot lives in the “thoracolumbar corner,” a nook between your lowest rib and your spine — right where the stability of the rib cage and thoracic vertebrae gives way to the relative instability of the lumbar spine. It consists of trigger points in the upper-central corner of the quadratus (square) lumborum muscle and in the thick column of muscle that braces the spine, the erector spinae. (Click/tap heading to read more.)

for pain: anywhere in the low back, tailbone, lower buttock, abdomen, groin, side of the hip

muscle(s): quadratus lumborum, erector spinae

3 For shin splints

Perfect Spot No. 3 is in your shins — seemingly an unlikely place for muscle knots! But there is meat there, and if you've ever had shin splints then you know just how vulnerable that meat can be. Even if you've never suffered so painfully, your shins probably still suffer in silence — latent trigger points in the upper third of the shin that don't cause symptoms, but are plenty sensitive if you press on them. (Click/tap heading to read more.)

for pain: in the shin, top of the foot, and the big toe

muscle(s): tibialis anterior

4 For thoracic outlet syndrome, throat pain and tightness, chest pain

Deep within the Anatomical Bermuda Triangle, a triangular region on the side of the neck, is the cantankerous scalene muscle group. Massage therapists have vanished while working in this mysterious area, never to be seen again. The region and its muscles are complex and peculiar, and many lesser-trained massage therapists have low confidence working with them. (Click / tap heading to read more.)

for pain: in the upper back (especially inner edge of the shoulder blade), neck, side of the face, upper chest, shoulder, arm, hand **muscle(s):** scalenes (anterior, middle, posterior)

5 For carpal tunnel syndrome, tennis elbow

Just beyond your elbow, all the muscles on the back of your forearm converge into a single thick tendon, the common extensor tendon. At the point where the muscles converge, in the muscles that extend the wrist and fingers, lies one of the more inevitable trigger points in the body: Perfect Spot No. 5. It is constantly provoked both by computer usage today, and more often by the use of a pen in simpler times — and by the occasional tennis match, then and now, or maybe crocheting. (Click / tap heading to read more.)

for pain: in the elbow, arm, wrist, and hand **muscle(s):** extensor muscles of the forearm, mobile wad (brachioradialis, extensor carpi radialis longus and brevis), extensor digitorum, extensor carpi ulnaris

6 For gluteal and hip pain, sciatica, bursitis, low back pain

When you have back pain, buttock pain, hip pain, or leg pain, much or even all of your trouble may well be caused by trigger points in the obscure gluteus medius and minimus muscles, a pair of pizza-slice shaped muscles a little forward of your hip pocket. Other muscles in the region are usually involved as well, such as the gluteus maximus, piriformis, and the lumbar paraspinal muscles. However, the gluteus medius and minimus are a bit special: their contribution to pain in this area is particularly significant, and yet people who have buttock and leg pain rarely suspect that much of it is coming from muscle knots so high and far out on the side of the hip. (Click / tap heading to read more.)

for pain: in the low back, hip, buttocks (especially immediately under the buttocks), side of the thigh, hamstrings **muscle(s):** gluteus medius and minimus

7 For jaw pain, bruxism, headache

Your masseter muscle is your primary chewing muscle — not the only one, but the main one — and it covers the sides of the jaw just behind the cheeks. It's also the main muscle that clenches your jaw and grinds your teeth, unfortunately, and it's one of the most common locations for trigger points in the human body. It is probably an accomplice in most cases of bruxism (that's Latin for "grinding your teeth") and temporomandibular joint syndrome (jaw

joint pain), plus other unexplained painful problems in the area. (Click / tap heading to read more.)

for pain: in the side of the face, jaw, teeth (rarely)

muscle(s): masseter

8 For runner's knee

A lot of quadriceps aching, stiffness and fatigue emanates from an epicentre of “knotted” muscle in the lower third of the thigh, in the *vastus lateralis*, a huge muscle — one of your biggest — that dominates the lateral part of the leg. Stretching it is effectively impossible, but massage is an option: although often shockingly sensitive, Perfect Spot No. 8 can also be quite *satisfying*. It also often complicates or contributes to other problems in the area, especially runner's knee (iliotibial band syndrome). (Click / tap heading to read more.)

for pain: in the lower half of the thigh, knee

muscle(s): quadriceps (vastus lateralis, vastus intermedius, vastus medialis, rectus femoris)

9 For chest pain & tightness

The “pecs” are popular: of 700+ muscles, the *pectoralis major* is one of just a dozen or so that most people can name and point to. It also harbours one of the most commonly-encountered and significant trigger points in the human body, and can produce pain much like a heart attack in both quality and intensity. (Click / tap heading to read more.)

for pain: anywhere in the chest, upper arm

muscle(s): pectoralis major

10 For plantar fasciitis

The tenth of the Perfect Spots is one of the most popular of the lot, and right under your feet — literally. It lies in the center of the arch muscles of the foot. This is one of the Perfect Spots that everyone knows about. No massage is complete without a foot massage! (Click / tap heading to read more.)

for pain: in the bottom of the foot

muscle(s): arch muscles

11 For upper back pain

This “spot” is too large to really be called a “spot” — it's more of an area. The thick columns of muscle beside the spine are often littered with muscle knots from top to bottom. Nevertheless, there is one section of the group where massage is particularly appreciated: from the thick muscle at the base of the neck, down through the region between the shoulder blades, tapering off around their lower tips. There is no doubt that this part of a back massage feels even better than the rest — even the low back, despite its own quite perfect spots, cannot compete. (Click / tap heading to read more.)

for pain: anywhere in the upper back, mainly between the shoulder blades

muscle(s): erector spinae muscle group

12 For low back and gluteal pain, sciatica

At the top of the buttocks lies a Perfect Spot for massage: a sneaky but trouble-making brute of a trigger point that commonly forms in the roots of the gluteus maximus muscle. It's *below* the lowest part of the low back, but it often *feels* like low back pain. This is the kind of spot that the Perfect Spots series is all about: not only does it tend to produce a profound, sweet ache when massaged, but the extent of the pain that spreads out around it is almost always a *surprise*. It feels like a key to much more than expected. (Click / tap heading to read more.)

for pain: in the lower back, buttocks, hip, hamstrings

muscle(s): gluteus maximus

13 For low back pain, sciatica

Some of the Perfect Spots are perfect because they are “surprising” — it’s delightful to find a place to massage that feels highly relevant your pain in an unexpected location. Others are perfect because they are *exactly* where you expect them to be — and what a relief it is to be able to treat them. Perfect Spot No. 13 is perhaps the ultimate, the quintessential example of a trigger point that is usually “right where I thought the problem was”: in the “pit” of the low back, at the bottom of the thick columns of back muscle beside the spine. (Click / tap heading to read more.)

for pain: in the low back, buttocks, hamstrings

muscle(s): erector spinae muscle group at L5

14 For shoulder pain

I avoided adding Spot 14 to this series for many years, because it’s a bit tricky to find. But precision is not required: although there is one specific spot that’s especially good, nearly anywhere under the ridge of bone on the shoulder blade is worthwhile, and often a surprising key to pain and stiffness everywhere else in the shoulder, *especially* all the way around on the other side, facing forward. (Click / tap heading to read more.)

for pain: any part of the shoulder, and upper arm

muscle(s): infraspinatus, teres minor

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