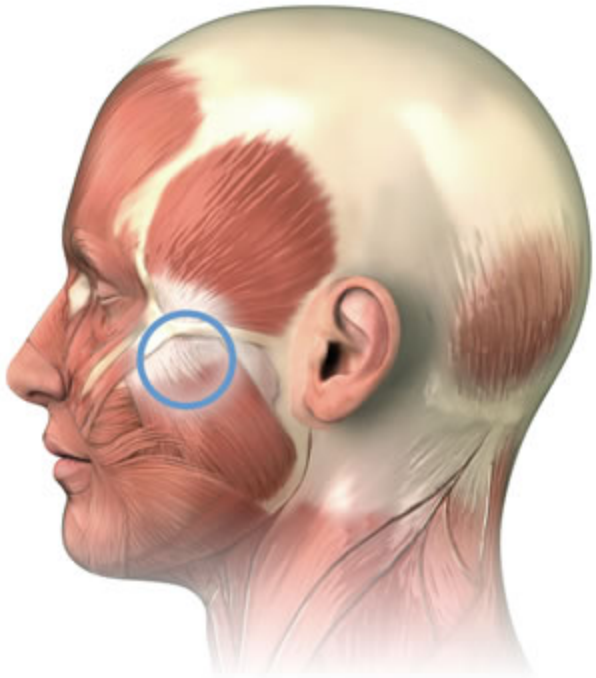


Massage Therapy for Bruxism, Jaw Clenching, and TMJ Syndrome

Perfect Spot No. 7, the masseter muscle of the jaw

Paul Ingraham • Oct 14, 2021 • 20m 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	Problems	Related Muscles
in the side of the face, jaw, teeth (rarely)	jaw pain, bruxism, headache	masseter

"Big Red Books" Reference: Volume 2, Chapter 8

see chart of all spots below

Your masseter muscle is your primary chewing muscle — not the only one, [1] but the main one — and it covers the sides of the jaw just behind the cheeks. And so it's also the 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. [2] It is an accomplice in many cases of bruxism (that's Latin for "grinding your teeth") and temporomandibular joint syndrome (jaw joint pain), and probably other unexplained painful problems in the area — it will be either a contributing factor or a complication.

The masseter muscle is *strong* (and special)

Not only does the masseter muscle probably harbour some of the most common trigger points in the human body, the masseter is also the *strongest* muscle in the human body (pound for pound), although many variables make this difficult to be sure of. [3] Together with the temporalis muscle and a few other smaller muscles, most people can generate at least about 68 kilograms of force (kgf) between their teeth. For contrast, the world record for human bite strength is **442** kgf. 442! [4] More than six times normal. A human shark!

It's amazing how specialized muscles can be. The masseter gets extraordinary strength from a "multipennate" arrangement of fibres that's like a complex feather — fibres converging diagonally on several internal tendons. [5] This feathered arrangement favours torque over speed, making the masseter a "low gear" muscle, slow but powerful and efficient, lots of chewing bang for your masseter buck. Lots of torque. The physics details are a bit mind-bendy. [6]

Why is the masseter muscle a Perfect Spot for massage?

A little muscle rubbing and stretching probably eases pain and stiffness at least a little, [7] and it's easy to imagine why this muscle might enjoy that: whose jaw isn't at least a little bit tense? But the masseter's potential to cause trouble — and its need for some massage — is often underestimated by both patients and professionals. (Although I'm pleased to

see a surprisingly strong interest in the subject amongst *dental* specialists.) When irritated, masseter muscle knots can cause and/or complicate several problems:

Tension headaches, of course — this makes strong intuitive sense to most people. There seems to be a clear link between tension headaches and jaw muscle tension. [8] This is mostly due to the temporalis muscle, which is reflexively massaged by everyone with a headache (the temples). But the masseter is often neglected, even though it is more powerful and clenchy. They both need some attention — massaging above and below the cheekbone. I actually considered defining Spot No. 7 as the temple *and* the masseter. [9]

"TMJ syndrome" is often mistakenly referred to as just "TMJ". This isn't a casual shortening of the term: people think "TMJ" refers to the syndrome. But the acronym TMJ refers only to the joint itself. This makes it slightly amusing when people say, "I have chronic TMJ."

"I know the feeling!" I reply. "I also have a temporomandibular joint I can't get rid of."

Earaches and **toothaches** — which are much less obviously associated with the masseter. A masseter trigger point can radiate pain directly into a tooth. Travell and Simons quip, "This can lead to disastrous results for an innocent tooth." [10] I once suffered a dramatic case of a "toothache" that was completely relieved by a massage therapist the day before an emergency appointment with the dentist: a particularly vivid experience, and in fact the one that originally got me interested in trigger points.

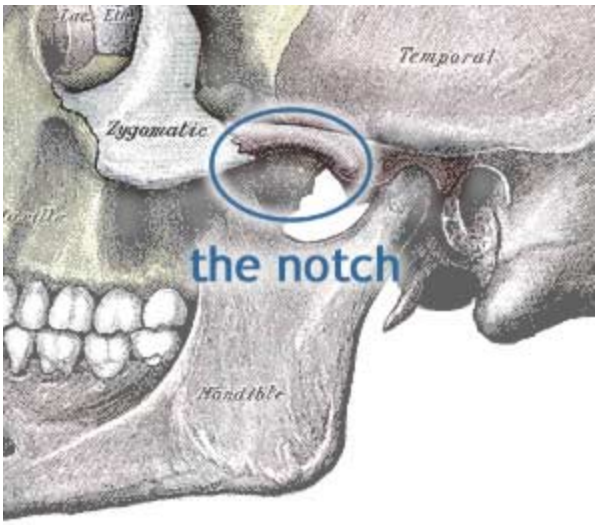
Tinnitus (ringing in the ears) and **dizziness.** Both can be serious and complex problems. There are *many* other potential contributing factors and causes of these conditions. Although they are unlikely to be caused by masseter trigger points themselves, they are probably involved and need to be considered. [11]

Bruxism, or grinding and cracking of molars, with many early warning signs of wear and tear. [12]

Temporomandibular joint syndrome (TMJS) is a slow-motion failure of jaw joint function, mostly pain and/or limited movement, strongly linked to habitual clenching and grinding (bruxism). TMJS can be minor or awful, and is one of the classic chronic pain syndromes that lacks an obvious cause. The worst cases interfere with eating and sleeping, often involve ear aches and ringing as well

How do you massage the masseter muscle?

Fortunately, it's easy — really easy — to massage and soothe your own masseter muscle, which is what makes it such a particularly *perfect* Perfect Spot. It has both great needs *and* it's unusually easy and satisfying to self-massage.



The masseter muscle "hangs" from the underside of the cheekbone on the side of the face. The bottom of the muscle attaches to a broad area on the side of the jawbone.

Perfect Spot No. 7 is conveniently located in a notch in the cheekbone, about one inch in front of your ears. The notch is on the underside of the cheekbone, it's easy to find, and your thumb or fingertip will fit into it nicely. If you press firmly inward and upwards with your thumb in the cheekbone notch, you will usually be rewarded with a sweet ache.

The rest of the masseter muscle, however, tends to feel like not much, or unpleasantly tender. Although the entire muscle can be rubbed gently, most people will find that the satisfying sensation of a Perfect Spot for massaging is limited to the upper edge of the muscle.

Spot 7 is a sturdy piece of anatomy, so don't be afraid to work steadily up to *firm* pressure — if that's what you feel like you want. Either constant pressure or small, kneading circles are both appropriate. Since this spot is sturdy, another good trick is to use a knuckle for extra pressure. A useful tool in this location is Pressure Positive's Knobble product — it's easy to lie down on your side and let the weight of your head apply a steady, firm pressure, with the tip fitting nicely into the cheekbone notch.

For more general tips about how to work on your own knots, see Basic Self-Massage Tips for Myofascial Trigger Points.

> *"As a 1990 massage grad, and still practicing after all these years, I still say to clients 'let's see what happens' … and some places just feel good to have applied pressure."*
>
> *~ Jan Shields, massage therapist*

Don't neglect your neck

Everything's connected, and the neck and the jaw have a strong working relationship. People with tempormandibular joint syndrome not only have more and worse trigger points in their jaw muscles than other people, but in their *neck* muscles as well. [13] Any serious effort to help your jaw should be accompanied by some neck massage as well, *especially* another perfect spot, Spot #1, in the suboccipital muscle group under the back of the skull, plus of course anything else that might help your neck, like some mobilizations or heating.

Oh, and when you're done with your neck, don't forget that it's attached to your *shoulders*…

Learning to relax your jaw

Does anyone go to the dentist anymore and *not* get a prescription for a mouth guard? 😃 Judging by the inevitable prescriptions, apparently *everyone* has some kind of jaw-clenching problem. [14] I feel suspicious that they may be over-prescribed, because selling mouth appliances is probably profitable. It's unclear that it works, and it could even do some harm. [15]

Then again, many people (including my wife) have actual cracks in their molars from clenching so hard, so clearly some people do actually need to protect their teeth. So it's complicated.

This article is mostly about *massaging* Perfect Spot 7 in the masseter, but it's obviously potentially extremely helpful for temporomandibular joint syndrome, bruxism, clenching, and grinding if you can *also* figure out how to stop clenching in the first place. But this is not easy. An easier life would be helpful, but those are hard to come by. A nice massage (or any other relaxing experience) is a helpful start, but it doesn't do much for long. [16] And simply *willing* yourself to stop clenching seems almost completely ineffective. I've known many people who have tried to get serious about reminding themselves to stop clenching, using egg timers and so on … with rather underwhelming results.

Simply willing yourself to stop clenching seems to be almost completely ineffective

So what can you do? How can you possibly learn to clench less? Here are two ideas that I think work better than simply trying hard not to clench.

Jaw relaxation trick #1: The Fake Drunk

Slur your speech as though you are so sleepy that you can hardly form words. You know that lovely feeling when you're waking up slowly, in no hurry, and you're conscious but not ready to move or speak yet? That floaty, delicious feeling of happy paralysis? Of complete contentment to just lie there? Now *act like you feel that way*, in your mouth. To get into the spirit of the thing, speak the words, "I'm so relaxed I can hardly talk," and slur your words. Literally slur them. Slur them like your mouth is so relaxed you are having trouble making words! You will find that this is quick and effortless way to relax your jaw. It won't necessarily last, but it *is* a most helpful way to quickly get *back* to the state you want.

I use this technique even when there are people around. I find that I can easily just mouth the words "I can hardly talk," making no noise, and immediately access the sensory experience of jaw relaxation, with no one around me having a clue about what I'm up to.

Jaw relaxation trick #2: The Long Surprise

Spend long periods of time with your jaw wide open, *if you can do so without pain*. (If you can't hold your jaw open without pain, you need a different approach: see the next section.) Hold your mouth open *at least* wide enough to fit a finger between your teeth for one full hour. Not just open, but open *wide* — as though you are really just *shocked* by something, continuously, for an hour. Every time during the hour that you catch yourself with your teeth together, simply calmly stretch your mouth open again. After an hour of this, clenching starts to feel abnormal, and you will find it much easier to keep your jaw relaxed for some time afterwards.

You may also find it helpful to actually prop your mouth open with something durable and spit-proof, such as a Lego block, or a small rubber ball. Most people will salivate too much to keep this up for an entire long session, but it can be a useful way to help you focus on the challenge for a few minutes at a time. Some people may find it practical for longer.

This intensive approach is generally a much more effective method of breaking the clenching habit than scattered self-reminders to "stop clenching," which just never really take. If you are really determined, spend an hour a day holding your face like someone just stuck a needle in your keister. If you put in the time, you really can't fail. I estimate that most people need 5–10 hours of practice in a week to put a good dent in a clenching habit. Of course, life is likely to regenerate the problem back sooner or later … but you will know what to do when that happens.

Good luck, and have fun with it.

When massage and relaxation aren't enough: management of nastier jaw pain

As with most kinds of pain, temporomandibular joint pain can get entrenched and serious. If you have a lot of pain, massage alone is unlikely to do the job: perfect spot #7 isn't *that* perfect. In fact, if things are bad enough, pain caused by strong massage could escalate the situation.

Most chronic pain involves some degree of dysfunctional *sensitization*. [17] In this unfortunate state, pain is no longer being dictated by the state of tissue, but by a bit of a neurological meltdown. You can recover from this state, but it takes more time. You will need to minimize stress on the jaw as much as possible for quite a while, and then gradually reintroduce healthy stimuli and normal usage again.

- Eat like you have no teeth, or fragile ones. Purge hard and chewy foods from your diet. Become a huge fan of smoothies. Make your jaw's job as easy as possible for as long as necessary. When you do chew firmer things, favour usage of the back molars: they have better leverage. [18]
- Your teeth should never be in contact unless eating! Contact at any other time is a stressful habit to be unlearned (which may be slow and difficult). You should also avoid opening your jaw widely (which is usually much easier to avoid).
- Consciously return your jaw to *neutral resting position* as often as possible: teeth slightly apart, with the tongue on the roof of the mouth just behind your front teeth (the position used to say the letter "N"). [19] For a while, use a timer to remind yourself of this frequently throughout the day. When you start to ignore that — and you will! — get creative with other reminder methods.
- Beware of extreme or awkward neck or jaw positions, and/or applying pressure to the jaw. Sleeping on your stomach is the classic example. Use a firm pillow between your knees to help prevent yourself from rolling onto your front. Leaning your jaw on your hand is another common one.
- Soothe the jaw as often and as well as you can, with either ice or heat: whatever feels most pleasant to you at any given time. Conservative use of painkillers [20] can be a perfectly good temporary crutch, and Voltaren gel can be especially useful in this location.
- Spend some time each day practicing *painless*, *gentle* jaw movements: sets of *slight* opening and closing and side-to-side movements, a few times a day. Make these movements as easy and subtle as required to ensure that they are painless. The idea is teach your brain that movement is safe and dandy. These are "mobilizations," but unusually tiny ones. With the jaw it is necessary to be particularly delicate — so much so that you might feel like you're almost doing nothing at all. That's okay, as long as there is movement and it doesn't hurt.
- All of the above might still fail if you have severe chronic anxiety or insomnia. Addressing big life problems like a job you hate, or a bad marriage, can be critical in the long run: see Pain Relief from Personal Growth. I look at this in the most general way in Vulnerability to Chronic Pain: Chronic pain often has more to do with general biological vulnerabilities than specific tissue problems.

And, of course, if you're in such rough shape you should probably seek professional guidance and troubleshooting — but beware of no-pain-no-gain therapies. They are directly at odds with sensitized chronic pain.

Is TMJ pain related to being "tongue-tied"?

If you open your mouth wide, can you touch your upper teeth with your tongue?

If not, you might get diagnosed as "tongue-tied" by a tight lingual frenulum — the strap of tissue under your tongue, in the centre. The claim is that this causes TMJ pain (or neck pain, and headaches). And it's nonsense.

If you aren't aware of a problem with your tongue, it's extremely implausible that it's causing pain anywhere else in your head. This is a silly diagnosis primarily coming from quacks and low-quality professionals who are, conveniently for them, selling the solution — which is either laughably simplistic "myofunctional therapy" (basically tongue exercises), or invasive surgery to cut the frenulum. See "Painfully tongue-tied." My headache book has some extra information.

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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:

What's new in this article?

Four updates have been logged for this article since publication (2005). *All* PainScience.com updates are logged to show a long term commitment to quality, accuracy, and currency. more

2021 — Added a short section about the (bogus) relationship between jaw pain and a tight lingual frenulum.

2017 — Added citation to Webb *et al.* regarding massage efficacy.

2015 — Added new section, "Don't neglect your neck."

2015 — Added new section, "When massage and relaxation aren't enough: management of nastier jaw pain."

2005 — Publication.

Notes

1. The other major one is the temporalis muscle, which covers more of the side of the head than most people realize: the entire temple, of course, but quite a bit more above and behind that.

2. Travell J, Simons D, Simons L. Myofascial Pain and Dysfunction: The Trigger Point Manual. 2nd ed. Lippincott, Williams & Wilkins; 1999. p330. Several studies are discussed that conclude that myofascial trigger points in the superficial masseter muscle are either the most common, or the second most common, of all the trigger points studied. It's a hard thing to nail down for sure, but it seems clear that it's an extremely prominent "Perfect Spot!"

3. The tongue is also popularly claimed to be the most powerful muscle, but that's really hard to substantiate. The tongue isn't one muscle, but a muscle group, and it can't apply force in a way that can be compared meaningfully to other muscles. How, exactly, do you test tongue strength? Tongue push-ups?

4. According to the *1992 Guinness Book of Records*, in 1986 Richard Hofmann of Lake City, Florida achieved a bite strength of 442 kbf (975 lbf) for two seconds.

5. "Pennate" just means "like a feather," with diagonal fibres converging on a line — a tendon. In a "multi" pennate muscle, there are multiple and dividing central tendons. The result is a complex, densely packed feathering of fibres. There are only a few multipennate muscles in the body, like the deltoid on the shoulder, and most of the small muscles in the hands and feet. But the masseter is the king of "pennatedness."

6. Pennate muscle power is a winch: powerful but slow, and you need more cable to pull shorter distances. Pennate muscles exploit the pulley effect by pulling on the sides of tendons that run all the way through the muscle, converging on them at angles. Imagine a tug-of-war team with ropes tied to the main rope — you could have at least twice as many pullers! More fibres pulling on a tendon means that pennate muscles are found in the "tight spaces" in the body where power is needed without a lot of mass. In contrast, muscles with *parallel* fibres, like the biceps, pull directly on their target bone, and so they can pull faster and farther, but they are also weaker pound-for-pound and take up a lot of room. If you converted pennated muscles to a parallel fibre structure, they would have to be roughly twice as big! Imagine doubling the size of your masseters. Chipmunk!

7. Webb TR, Rajendran D. Myofascial techniques: What are their effects on joint range of motion and pain? A systematic review and meta-analysis of randomised controlled trials. J Bodyw Mov Ther. 2016 Jul;20(3):682–99. PubMed 27634094 ❐

   A review of nine studies of dubious quality of "myofascial technique" — rubbing and stretching basically — for joint pain and stiffness. Although all the studies showed improved range of motion and reduced pain, most clearly for the jaw, the authors of this review think that there are "a number of threats that challenge the statistical inferences underpinning these findings." Translation: they think the studies they reviewed are of poor quality and that their conclusions cannot be trusted (garbage in, garbage out). Obviously the science is incomplete, but there are some reasons for optimism here (and it's not exactly a huge claim that some rubbing and stretching might help a painful, stiff joint).

8. Gonçalves DAG, Bigal ME, Jales LCF, Camparis CM, Speciali JG. Headache and symptoms of temporomandibular disorder: an epidemiological study. Headache. 2010 Feb;50(2):231–41. PubMed 19751369 ❐

   This epidemiological study found temporomandibular joint dysfunction is more common in tension and chronic daily headache patients, and especially migraine headache sufferers, than in the general population. This is such a well-documented link that this is the only reference I have for it.

9. I decided against it because the two halves of the spot are so different in character. The temporalis is much thinner, massage there needs to be generally more delicate and superficial, and it feels more like massage of the surface of the head than the jaw. Only about a centimetre away, just on the other side of the cheekbone, the top of the masseter is sturdy and thick, and tolerates strong pressure which feels more much more penetrating and much more relevant to jaw tension.

10. Travell J, Simons D, Simons L. Myofascial Pain and Dysfunction: The Trigger Point Manual. 2nd ed. Lippincott, Williams & Wilkins; 1999. p339

11. Rocha CAC, Sanchez TG. Myofascial trigger points: another way of modulating tinnitus. Prog Brain Res. 2007;166:209–214. PubMed 17956784 ❐

    In 2007, these researchers found that "in 56% of patients with tinnitus and MTPs, the tinnitus could be modulated by applying digital compression of such points, mainly those of the masseter muscle." And how many people with tinnitus had trigger points? Quite a few. The researchers found "a strong correlation between tinnitus and the presence of MTPs in head, neck and shoulder girdle."

12. For instance, a dental x-ray may show signs of calcification in molar interiors. My dentist pointed this out to me in early 2015, after years of warning me that there were more superficial signs of bruxism. Seeing the trouble on an x-ray finally got my attention.

13. Fernández-de-Las-Peñas C, Galán-Del-Río F, Alonso-Blanco C, *et al*. Referred pain from muscle trigger points in the masticatory and neck-shoulder musculature in women with temporomandibular disoders. J Pain. 2010 Dec;11(12):1295–304. PubMed 20494623 ❐

14. The actual prevalence of bruxism is probably no more than 30% of the population, though some sources cite much higher figures. A large percentage are probably unaware of it.

15. Bereznicki T, Barry E, Wilson NHF. Unintended changes to the occlusion following the provision of night guards. Br Dent J. 2018 10;225(8):715–722. PubMed 30361571 ❐

16. This is one of the classic problems with massage. Although massage does appear to be quite helpful for some people, some of the time, the results are a bit underwhelming on average — and the benefits are notoriously brief. This is discussed in much more detail in both my advanced trigger points tutorial, and also my general massage review, Does Massage Therapy Work?

17. Pain itself often modifies the way the central nervous system works, so that a patient actually becomes more sensitive and gets *more pain* with *less provocation*. This is called "central sensitization." (And there's peripheral

sensitization too.) Sensitized patients are not only more sensitive to things that should hurt, but also to ordinary touch and pressure as well. Their pain also "echoes," fading more slowly than in other people. See Sensitization in Chronic Pain: Pain itself can change how pain works, resulting in more pain with less provocation.

18. Using your front chompers takes more strength, because they are further from the joint — from the fulcrum. So avoid things like biting into apples with your front teeth, which takes a lot of biting power with the worst leverage.

19. When lying down, the tongue can fall back and down a bit: holding it on the roof of the mouth would take tension.

20. Don't get chronic with any pain-killer, even the non-Rx ones, and never exceed dosage recommendations, especially for acetaminophen/paracetamol (Tylenol, Panadol, etc). Beware of indigestion with ibuprofen (Advil, Midol, etc). For more about all kinds of pain-killers, see The Science of Pain-Killers: A user's guide to over-the-counter analgesics like acetaminophen, ibuprofen, and more.

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

For low back pain, sciatica

13

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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