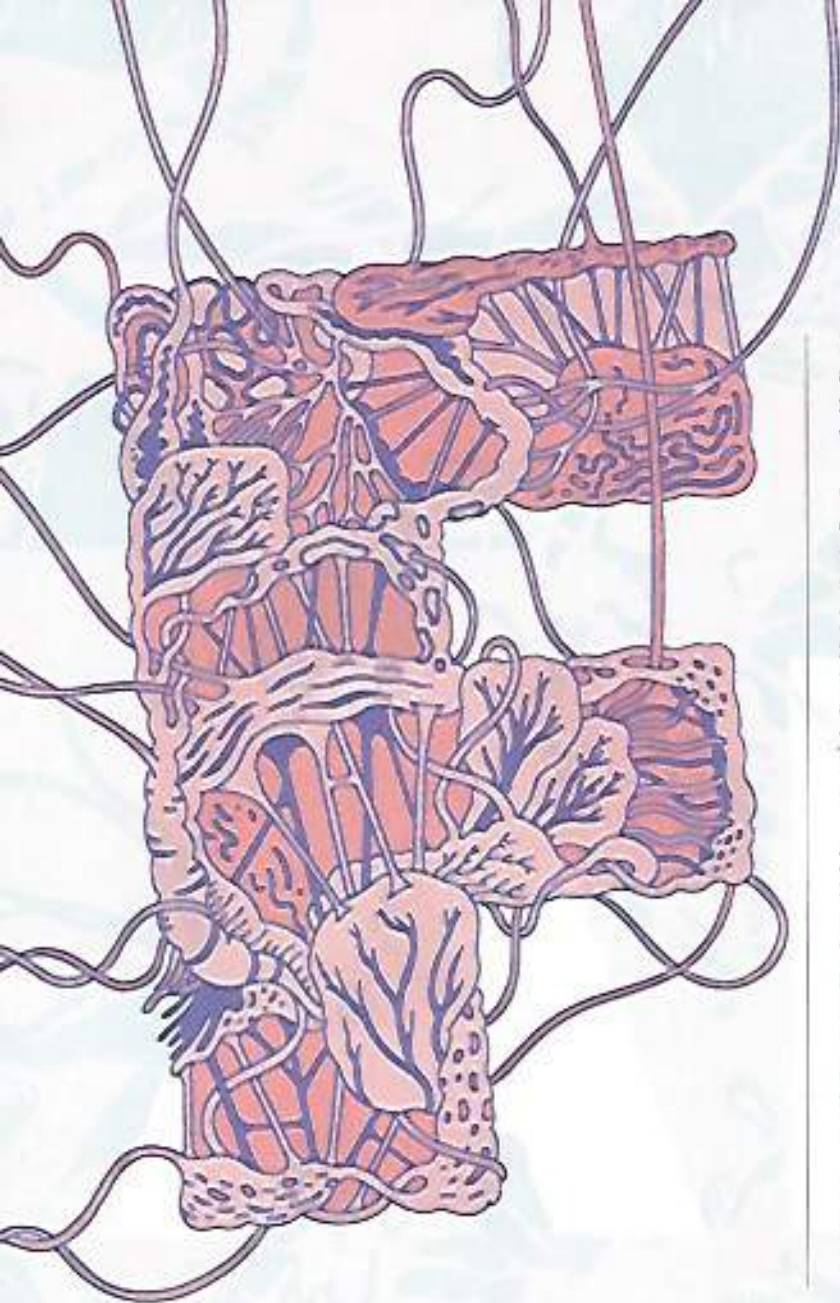


It's the word being whispered by doctors, trainers, and masseuses alike. And caring for it will have you feeling, moving, performing, and looking as though you've cheated aging. But what exactly is fascia, and how much attention does this underrated system of our body deserve? Exactly eight beautiful pages' worth.

BY MARISSA GAINSBURG ILLUSTRATIONS BY ADAM HAYES





For years, scientists researching pain, movement, and recovery did the anatomical equivalent of paving paradise to put up a parking lot, tossing the shiny, webby tissue that covers “the good stuff”—i.e., muscles, nerves, and organs—literally in the trash. Little did they know, it actually held the answers they’d long searched for....

If this sounds like a dramatic, *duh-duh-duh* beginning to a Marvel epic, it sort of is. Because that webby stuff, called fascia, has emerged as a superhero in its own right, in the worlds of both fitness and overall health.

Before we can get into all fascia does, you have to first understand what it is. Imagine an orange: If the peel is like our skin, the white stuff beneath it—you know, the thready film that surrounds each wedge and also holds the wedges together as one sphere—is like our fascia. This connective plastic-wrap-like substance is made up of gelatin-esque glycoproteins (which hold water like a sponge), collagen fibers (our strongest protein), and various other cells (such as fat cells). And similar to the citrus fruit pith, its main job is to keep your internal bits—muscles, joints, tendons, bones, all of it—in place. Layers of this amazing tissue run through your entire body, from your face to your toes.

But why has it gotten so buzzy, popping up in “fascial yoga” and “fascial massage” in studios and spas? For one, new tools are letting researchers see and measure what it’s doing inside your body (versus looking at the dried-up version previously trashed). That makes the material much sexier to those in lab coats. And perhaps the bigger reason: As functional medicine and fitness—or considering the body as a whole rather than focusing on individual areas—becomes more widespread, practitioners are taking a closer look at the common threads that bind every part of our body.

“Fascia is one of the most important and pervasive systems, because it connects every system together,” says Rebecca Pratt, PhD, a professor of anatomy at Oakland University William Beaumont School of Medicine. First and foremost, healthy fascia is crucial to comfy daily move-

ment and exercise performance. (Ever been so tight from sitting or from killer workouts that your stairs felt like Everest? That’s your angry fascia talking.) It’s also key to injury recovery because it weaves between vessels and supports blood flow. Fit fascia may even ease your mind, because it wraps around the nerves that send messages to your brain.

What’s more, because fascia contains cells that “talk” to one another, as well as to other cells throughout your body, researchers now think this tissue might

be the channel through which conditions like autoimmune diseases or cancer spread. “If a cell doesn’t hear proper job signals and goes rogue, it can leave the fascia and move into a place it’s not supposed to be, doing things it’s not supposed to do,” says Pratt.

So how do you make sense of a physiological system as profound, as abstract, and as vital to our existence as outer space? It’s simple, actually. Our guide will have you embodying the badass you were born to be. No shiny costume—that anyone can see, anyway—required.



# Five Probs, One Fix



ONE OF THE BODY'S MOST INTEGRATED SYSTEMS, YOUR CONNECTIVE TISSUE CAN BE THE CAUSE OF—OR SOLUTION TO—EVERYDAY BUMMERS THAT SAP YOUR ENERGY, MOBILITY, AND ATHLETIC ABILITY. TAKE CONTROL OF IT ALL AT ONCE.

## 1. Headaches

Calling all desk jobbers: A throbbing noggin is often related to cranky fascia in your neck. Here's why: When your head and shoulders shift forward instead of staying aligned with your spine, the muscles (and the fascia around them) at the base of your head tighten, while the ones that control your shoulders grow weak. The combo in this sensitive area leads to tension headaches.

**PREVENT IT** Do three sets of 12 seated rows with weights three times a week to open your chest and strengthen scapular muscles. Alignment is everything!

## 2. Limited Movement

After surgery or a severe injury, your body forms collagen-based scar tissue that can replace healthy fascia. Why that's a problem: Normal tissue fibers have a parallel orientation that makes them flexible. But scar tissue develops in a crisscross, haphazard way, which limits your muscles' ability to lengthen and contract. And as it thickens, it can leave hard-to-loosen adhesions in the fascia that further curb your range of motion.

**PREVENT IT** Once the damaged area has healed, begin gentle massage techniques, like gliding the skin forward and back, then side to side, for several minutes a few times a day. If you're nervous about messing with your wound, visit a physical therapist, who can teach you easy methods to replicate at home.

## 3. Sticky Joints

Creaky knee at the gym? Inflexible ankle in yoga? Tightness in your muscles and surrounding fascia can cause your joints to stiffen. When that happens, your body begins to move in ways that can create long-term issues. A prime example: Tight calves reduce your toes' ability to flex toward your shin, changing your gait.

**PREVENT IT** Foam-roll or stretch any tense area right after each workout, as your muscles respond best when warm. Try three 30-second standing calf stretches (legs straight, heels down) daily—it's a pesky area.

## 4. Back Pain

Where your thoracic (middle) and lumbar (lower) spine meet can be its own spider web of chaos, because muscles supporting your top half and your bottom half intersect there. This means restricted fascia anywhere—especially in your hamstrings or quads—can pull on the fascia here, inviting soreness. Ever heard of your psoas? It's a muscle in your hip flexors (the guys that allow you to lift your knee) that PTs love to talk about, since it's vital for core strength. When your psoas is tight (again, blame sitting), expect lumbar pain.

**PREVENT IT** Because it's located so deep in your pelvic region, releasing the psoas is tricky for most people. Stretching your hip flexors can do the trick (try pigeon pose), but also foam-roll your hamstrings at least twice a week to keep your posterior chain in check.

## 5. Unhappy Feet

Plantar fasciitis, or heel pain due to inflamed fascia in the sole of your foot, strikes 2 million people each year, especially runners. The condition can usually be traced to tightness around the calves, though flat feet (from weak leg muscles) may play a part. While the pain itself can be debilitating, it presents a much bigger problem: Because our bodies are one kinetic chain, problems at the bottom can spark imbalances farther up when other muscles compensate. The result? Limping, less agility, or often, injury.

**PREVENT IT** Roll your feet over a lacrosse ball, for a minute each, ideally every day. Super active? Foam-roll your calves for up to five minutes each—that kinetic chain works in reverse too.

**The Experts:** David Nolan, DPT, CSCS, associate clinical professor of physical therapy at Northeastern University, clinical specialist at Massachusetts General Hospital Sports Physical Therapy; Chad Waterbury, DPT, physical therapist and neurophysiologist in Los Angeles





## FASCIA AND HOW YOU LIVE

# Fight Against Tight



AS YET, THERE'S NOT ENOUGH EVIDENCE THAT NURTURING YOUR FASCIA CAN DIRECTLY REDUCE YOUR RISK FOR CANCER OR DISEASE. (IF ONLY THINGS WERE THAT SIMPLE!) BUT THE TISSUE CAN IMPACT YOUR ENERGY, YOUR 5-K PERFORMANCE, PERHAPS EVEN YOUR STRESS LEVEL. SO WHY WOULDN'T YOU WANT TO GIVE IT SOME TLC? A FEW HABITS TO ADOPT NOW...

### STRETCH EACH MORNING

Even a quick forward fold can help break up collagen in your fascia, allowing more oxygen to hit your muscles and setting you up for better movement all day long. To really reduce tension, hold stretches for five minutes or longer. (Afterward, you should be able to deepen that stretch even more.) Or hit the mat: Yin yoga (or "fascial yoga") keeps you in poses about twice as long. Researchers think static stretching may produce anti-inflammatory that help repair tissue.

### GIVE YOURSELF A MASSAGE

Trying to improve fascial health without hands-on techniques (the major one: foam-rolling) is like trying to make a PB&J without bread—it just doesn't work. Relieving kinks on your own improves range of motion and slashes soreness. Why? Kneading soft tissue removes collagen buildup and raises body temperature, which amps blood flow to pump nutrients to the area and flush waste. Roll until you feel a release. Hate it? Perfect excuse to book a proffesh massage.

### DRINK UP!

Our bodies are made up mostly of water, and much of that H<sub>2</sub>O is in our fascia. So if you're underhydrated or dehydrated, the tissue will be dry and brittle, not wet and spongy. The consequence: compromised mobility. Even our skin can look dull when our fascia isn't hydrated, because the superficial fascia (the layer closest to the surface) gives skin its healthy tone. Down your eight glasses of agua daily—plus a glass or two extra on days you're exercising hard, to replace what you lose in sweat.

### EAT FRUITS AND VEGGIES

High levels of inflammation throughout the body infiltrate the fascial tissue, summoning pain. A clean diet that's packed with fresh produce and healthy fats and light on processed foods (a favorite one to follow is the Mediterranean style) helps minimize the I-word. Adding a daily serving of collagen, like Vital Proteins powder or bone broth, might even boost the collagen profile in your fascia, strengthening the web.

### GET HOPPING

Scientists recently discovered that fascial tissue stores more kinetic energy than any other type of tissue—in fact, it's this springlike material, not powerful muscles, that enables kangaroos to catapult as far as 43 feet. (Pretty cool, right?) Because of this relationship, experts think plyometrics (explosive jumps) makes your fascia more durable and resilient by increasing its density. While all the other tips here will improve your fascia, only this one will actually strengthen it. Three times a week, spend up to five minutes doing hopscotch over an agility ladder, or do three sets of 10 to 20 jump squats.

**The Experts:** Rebecca Pratt, PhD, professor of anatomy at Oakland University William Beaumont School of Medicine; Robert Schleip, PhD, director of the Fascia Research Project at the University of Ulm in Germany; Chad Waterbury, DPT, physical therapist and neurophysiologist in Los Angeles



## How big an impact could doing all these things really have?

In terms of quality of life, an all-caps huge one. Because the benefits aren't limited to the physical. "Tending to your fascia is a profound type of self-exploration," says Jessa Zinn, a structural integrator (or soft tissue specialist) at NYC's YInova Center. "It's incredibly empowering to reveal and heal dysfunctions that you weren't aware of. You start to live more consciously and experience your wholeness. That gives rise to better, more intentional choices from the inside out."





## How hard should I foam-roll?

Great question! Now that rolling has become totally mainstream—we hear you, alignment expert Lauren Roxburgh, for spreading athletes' longtime secret to the masses—you might see peeps in the gym scrunching up their face in pain as they move over the cylinder. Avoid copying them: You should be able to relax and breathe slowly, not feel the need to grimace. "Discomfort is okay, but you have to prep your mind and body for it," says PT Chad Waterbury. To start, push into an area that isn't painful for a minute or two, then move up inch by inch, settling into each location for a few minutes until you hit the most sensitive spot. Stay there until you feel it release. If you're using a rigid tool (say, the FasciaBlaster, the brainchild of fascia guru Ashley Black), go easy. If you dig in to the point of pain, you'll send a stress signal to your nervous system, which will make your fascia stiffen up again. (It's loaded with nerves.)





# “I saw a soft-tissue pro.”

**BEAUTY DIRECTOR LEAH WYAR IS NO STRANGER TO MASSAGE TABLES OR UNIQUE BODY TREATMENTS. BUT AFTER SIX SESSIONS WITH A FASCIA SPECIALIST, SHE CAME TO ONE TWO-WORD CONCLUSION: LIFE-CHANGING.**

Having struggled for a decade with severe backaches, courtesy of a blown L5 disc, I have a you-name-it-I'll-try-it approach to pain management: acupuncture, acupressure, chiro, cupping, physical therapy. So when a coworker suggested structural integration, described as intense manipulations of jacked-up fascia? Instant yes.

I booked an appointment at the Yinova Center in Manhattan with Jessa Zinn, who told me to lie face up on the table. “But the pain is in my lower back,” I said. “To treat your back, I have to treat your front,” she responded. Apparently, fascia functions like a tacked-in top: “When a shirt is too tight at the waist, it pulls at the neck—but we don’t yank at the neck to fix it,” she explained. “We untuck the shirt and reorganize the material.”

My stealth body shifter? Extreme tightness in my hip flexors and lower abs. Sitting hours a day with improper posture pulled my pelvis into an anterior tilt, drawing my lumbar spine into an unnatural curve right around my disc injury. Releasing it required deep, steady pressure from Zinn’s thumbs, fingers, and even elbows to reorganize the fascia. During one session, she focused on two pelvic muscles, my iliacus and psoas. Each time

she hit a tight spot, she’d coach me through the tenderness: “That’s it, just breathe... great release, Leah.” Her praise confirmed that we were making progress; that motivated me to stick with the stretches and stabilization exercises outside of her care. One such: rolling my stomach on a semi-deflated ball to keep my psoas spongy.

Understanding the relationship between body parts bound by fascia has empowered me beyond my back issue too. I now notice when I clench up during ab exercises out of fear of hurting myself, and I embrace the cracks and pops, which are a form of release as well. I started running again, something I’d avoided to spare my back, and I’ve felt more confident than ever, since I have better form to support the mileage. And I’ve taken control of my body. This week, when I could hardly bear a pain in my right shoulder and the headaches that came with it, a lightbulb went off: It’s not my shoulder; it’s my teeth grinding. I grabbed my FaceBlaster (a fascia tool for your visage) and glided into the tension around my jaw, ears, and neck. The next day? I felt amazing.

Turns out, the best treatment you can give yourself requires listening to the very pain that we try so hard to ignore—and, sometimes, seeking a little help from a magical set of hands.





## Fitter?



**THE QUESTION ON ALL OUR MINDS: HOW MUCH CAN FASCIA AFFECT OUR SHAPE AND SIZE? A WHOLE LOT.**

If you're trying to build a leaner body, supporting your fascial health is a simple, foolproof way to get there. That's because when fascia is properly gel-like—i.e., hydrated, strong, and relaxed—your muscles are able to receive more oxygen and contract more fully, as well as slide over each other without friction to produce more force. That upgrade means you'll power every workout more efficiently, in turn scoring better and faster results.

On top of that, happy fascia is a necessity for good posture—and standing up straight pretty much guarantees a slimmer appearance. Remember: Fascia is one giant, head-to-toe net. If you pull on a single thread (that plaguery neck region, for instance), it tugs the rest out of alignment and causes you to slouch. And even a supermodel who leans with slumped shoulders and pelvis jutting forward will seem to have a bit of a belly. Stand tall, with shoulders back, your upper and lower body in line with your hips, and you'll instantly look streamlined.

## Flatter?



**WORD ON THE STREET IS THAT FASCIA TOOLS CAN NIP CELLULITE. NOT QUITE.**

Since 90 percent of women struggle with the dimpled skin, we're all ears when it comes to a quick solve—especially an at-home one. Which could explain why, as fascia blew up in the fitness and therapy worlds, soft-tissue connoisseurs—many of them women—started to wonder if soothing tight spots could mean smoothing bumpy ones.

The truth: Much of our cellulite is within the superficial fascia, which is full of fat cells. When they start to protrude through the fibrous bands above them, pesky lumps appear. Releasing fascia won't break those bands. To reduce cellulite, you have to drop body fat (so you'll have fewer fat cells crowded into the fascia). Foam rolling could help shift fluid around the body, which, if anything, may make you feel less pillowy afterward.

The good news? The lifestyle choices you can make to care for your fascia (eating clean, staying hydrated, moving daily) are the same ones that can help you shed fat. And now you know exactly how.