

“The doctor of the future will give no medication but will interest his patients in the care of the human frame, diet, and in the cause and prevention of disease”

—Thomas A. Edison

Perfect Posture 101



**A Chiropractor's Guide for Long-Term Postural
Correction, Health, and Mobility**

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How Posture Affects Long-Term Health

Posture is more than how you sit or stand — it's a daily habit that shapes your health over time. Good posture supports your spine's natural curves, keeps muscles balanced, and allows your body to move efficiently. Poor posture, on the other hand, can silently wear down your body, leading to chronic pain, dysfunction, and even internal health issues.

When posture is compromised from slouching at a desk, craning the neck toward a screen, or standing with uneven weight distribution, stress builds up in the spine and surrounding muscles. Over time, this can lead to:

- Neck and Back Pain: Slouching increases pressure on spinal joints and discs, contributing to degenerative changes, muscle tension, and herniated discs.**
- Joint Wear and Arthritis: Misalignment can create uneven wear on joints, especially in the knees, hips, and shoulders.**
- Reduced Lung Capacity: Forward head and rounded shoulder posture can compress the ribcage, limiting breathing efficiency.**

- Digestive Issues:** Compressed abdominal organs due to slouched posture may slow digestion and affect gut function.
- Headaches and Fatigue:** Forward head posture places strain on the neck muscles, often triggering tension headaches and mental fog.
- Poor Circulation:** Sitting or standing in poor alignment for long periods reduces blood flow and lymphatic drainage, contributing to swelling or varicose veins.

Long-term postural imbalance often leads to muscular patterns known as Upper and Lower Cross Syndromes, where certain muscles become overly tight and others become weak. These imbalances reinforce poor movement patterns and increase the risk of injury over time.

Posture affects every major system of the body — musculoskeletal, neurological, respiratory, circulatory, and digestive. The good news is that it's never too late to correct it. With education, consistent movement, and intentional awareness, posture can be retrained, and long-term health outcomes improved.

"Unless we make radical changes to our working lives, such as moving more, addressing our posture at our desks, taking regular walking breaks or considering improving our work station set up, our offices are going to make us very sick."

In just 20 years' time, the average office worker will have a hunched back, protruding stomach and sore eyes, according to a life-sized doll developed as part of a report into workplace health.

Named Emma, the model shows what desk-bound workers will look like in the future – with a number of medical problems, unless changes to the work environment are made.



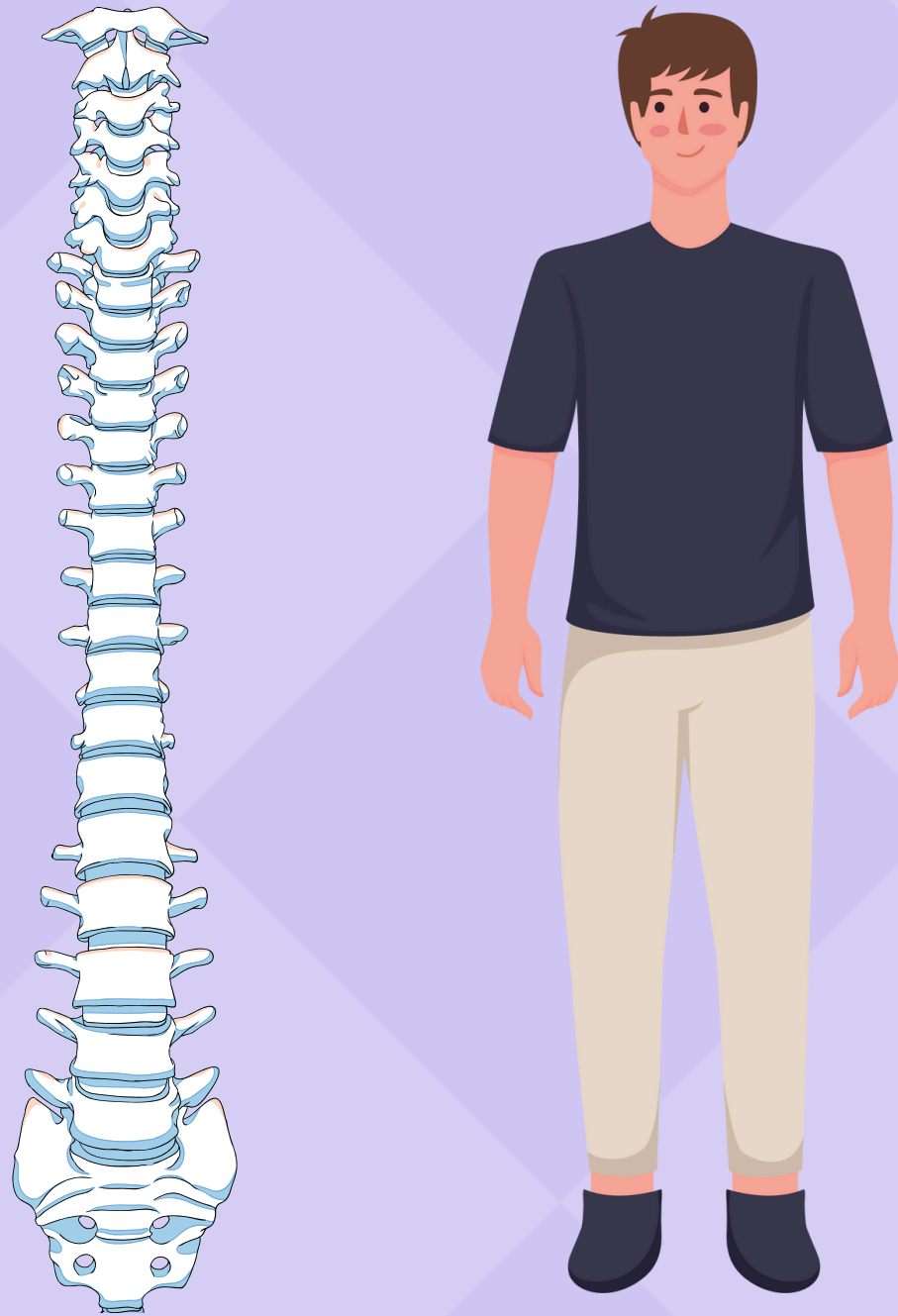
The life-sized doll named Emma has a permanently hunched back, varicose veins, red eyes and a protruding stomach.

Anatomy of the Spine

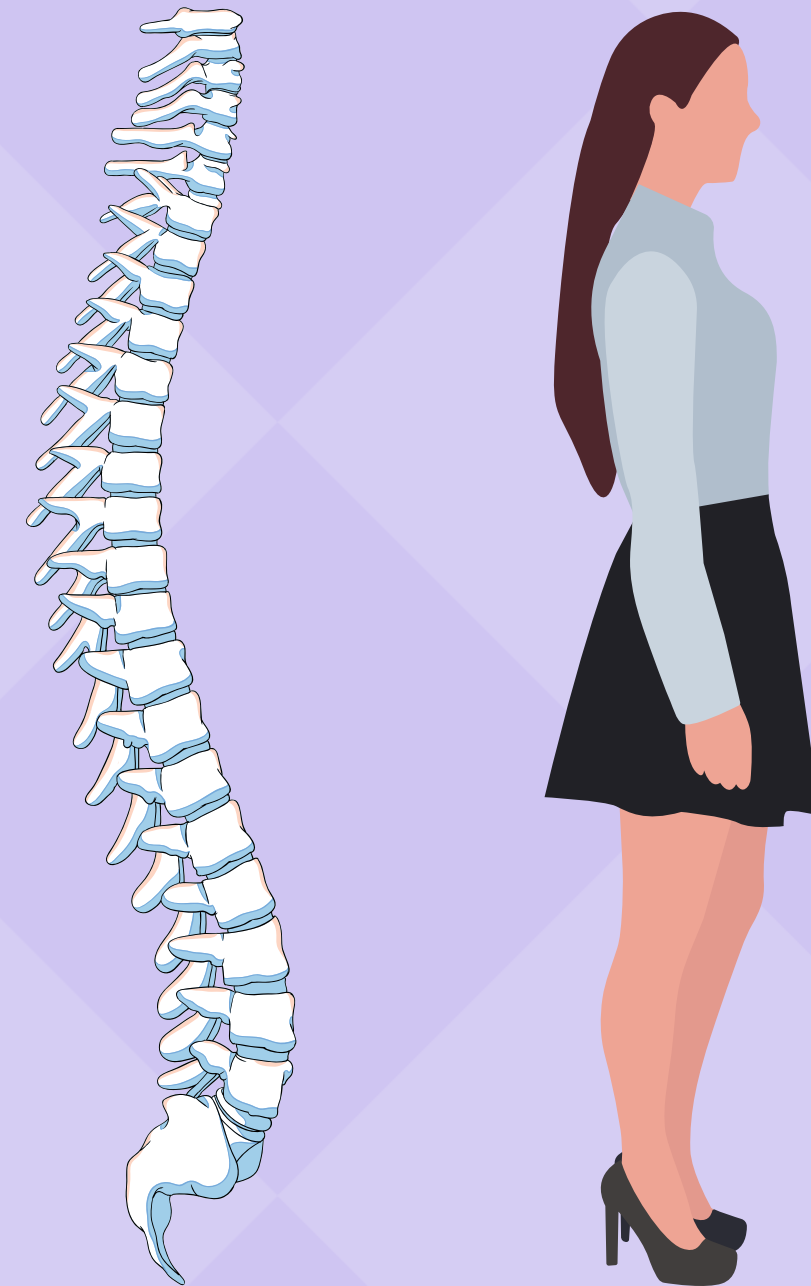
When looking at the spine from the side, a healthy spine has three natural curves. The neck curves slightly inward, the upper back curves slightly outward, and the lower back curves slightly inward again. These curves help with balance and shock absorption.

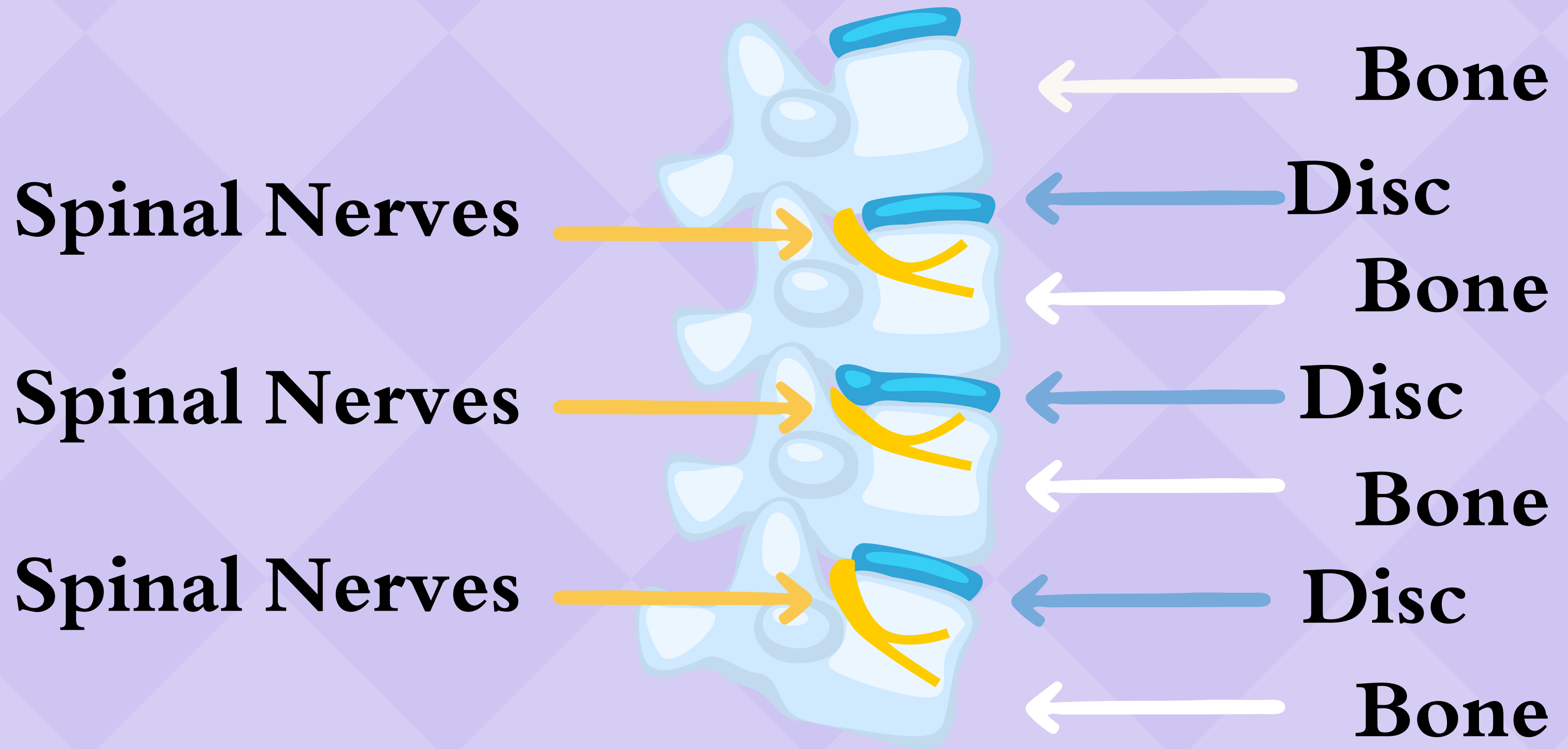
When looking at the spine from behind, a healthy spine should appear straight from the top of the neck down to the tailbone, with no side-to-side curves.

**The spine is straight up and down
when looking at it from front to back**



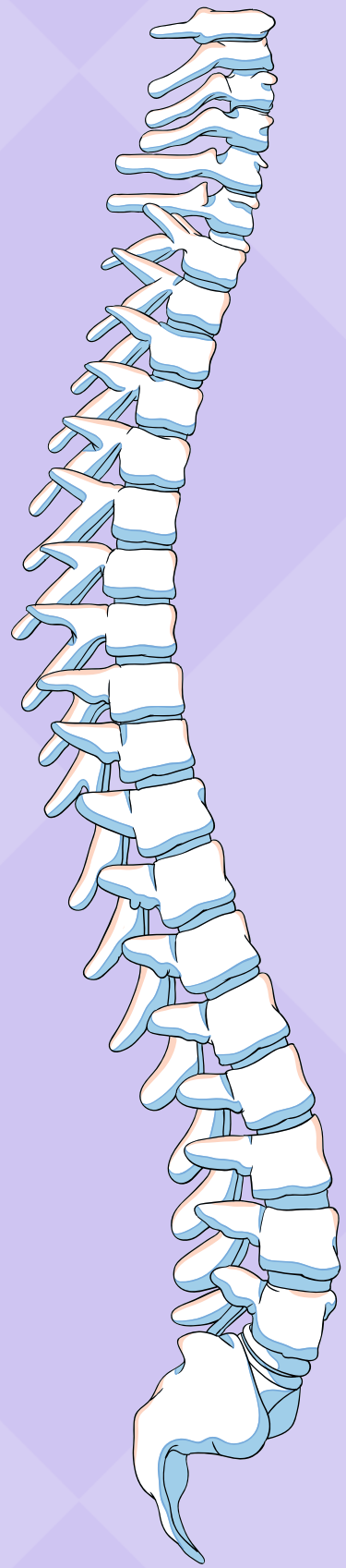
**The spine has 3 curves when
looking at it from the side**





Function of the Spine

The spine supports the body so you can stand, sit, and move. It protects the spinal cord, which carries messages between the brain and the rest of the body. It allows bending, twisting, and other movements while staying strong and flexible. The spine also acts like a suspension system, with its curves, discs, and joints helping to absorb shock and reduce stress on the body during movement.



The spine is naturally curved to function as a “suspension system,” with discs serving as cushions and spacers to keep the vertebrae properly separated. This spacing allows nerves to exit the spine and transmit signals between the brain and the rest of the body—muscles, organs, glands, and more. It serves as the body’s communication highway.

At every level of the spine, information is exchanged between and in close proximity to the vertebrae.

When the spine is out of alignment, it can disrupt this system.

Misalignments may compress or irritate the nearby nerves, interfering with the flow of information. This can lead to muscle tension, pain, and dysfunction in organs or glands, depending on which nerves are affected. Over time, these disruptions can impact the body's ability to function and heal properly.



Development of the Spine

When a baby is born, the spine has one big C-shaped curve. As the baby grows and starts to lift their head, a small curve forms in the neck. This is the first secondary curve. Later, when the baby learns to sit, crawl, and walk, another curve forms in the lower back. These changes help the body balance better and move more easily.

This happens because of something called Wolff's Law, which means the bones change and grow based on the way we use them. So, as babies start to move and use their muscles, the spine changes shape to support those new movements.

Wolff's Law

Wolff's Law is a simple but powerful idea: our bones change and adapt based on how we use them. "Function determines structure."

When it comes to the spine, this means that the way we move, stand, and sit every day actually shapes our spine over time. If we have good posture and use our body properly, the spine grows strong and stays in a healthy shape. But if we slouch or sit with poor posture for long periods, the spine starts to adapt to that too—just like a tree grows crooked if it leans toward one direction.

Wolff's Law

So, according to Wolff's Law, our spine is constantly “remodeling” based on the stress we put on it. If that stress is healthy, our spine stays strong. If it's unhealthy, like from bad posture, the spine can slowly change shape in a way that leads to pain, tension, or long-term problems.

In short: your posture helps shape your spine—and your spine will become what you repeatedly do.

Cervical Lordosis

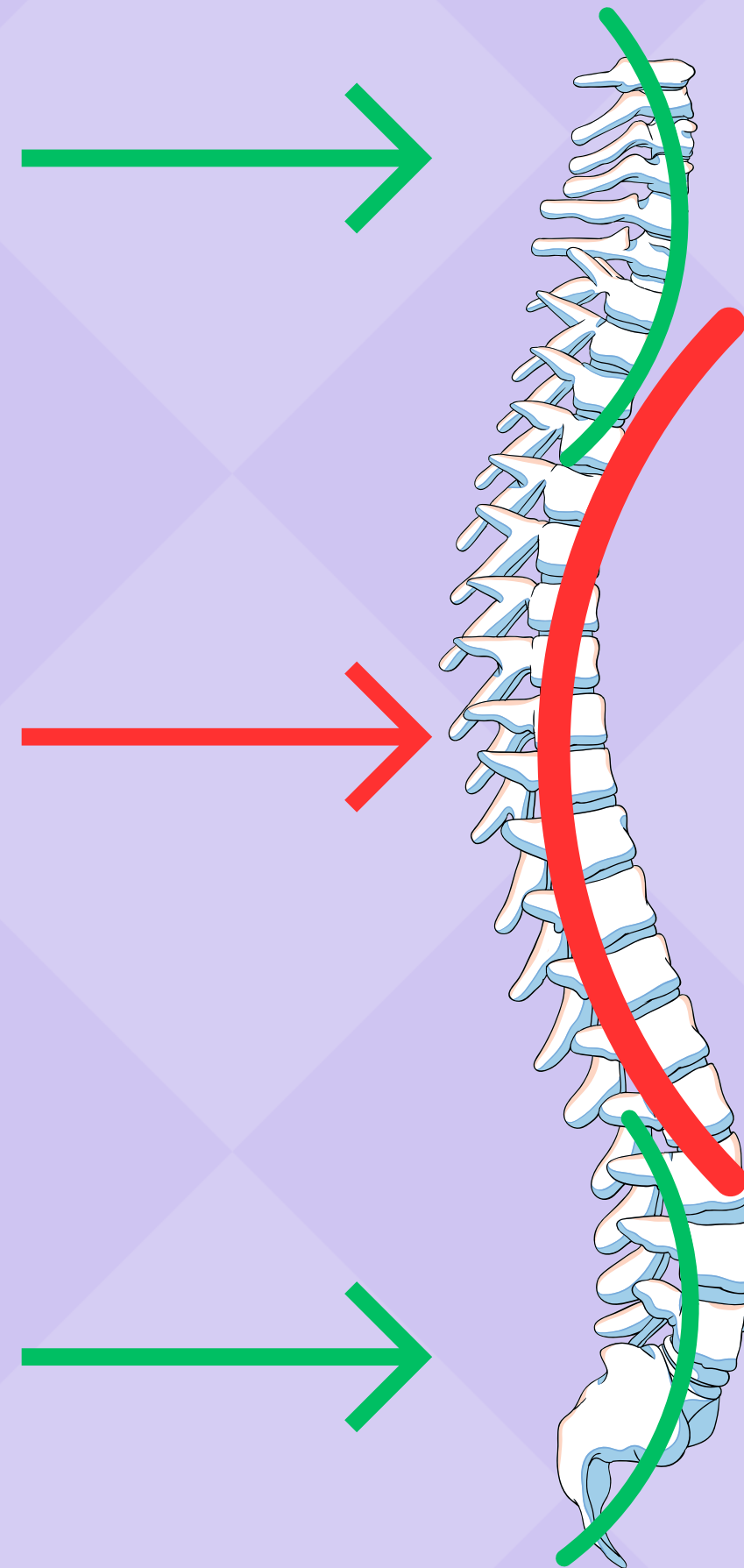
A Secondary curve
(developed later when
function changes).

Thoracic Kyphosis

A Primary curve
(born with it)
–becomes more
pronounced with
slouching.

Lumbar Lordosis

A Secondary curve
(developed later when
function changes).



Side View of the Spine

We are born with a “c-shaped” spine—the primary curve. We get the curve in our neck when we learn to hold our heads up—a secondary curve. And we get the curve in our low back when we begin walking—a secondary curve .

When Wolff's Law Leads to Dysfunction of the Spine

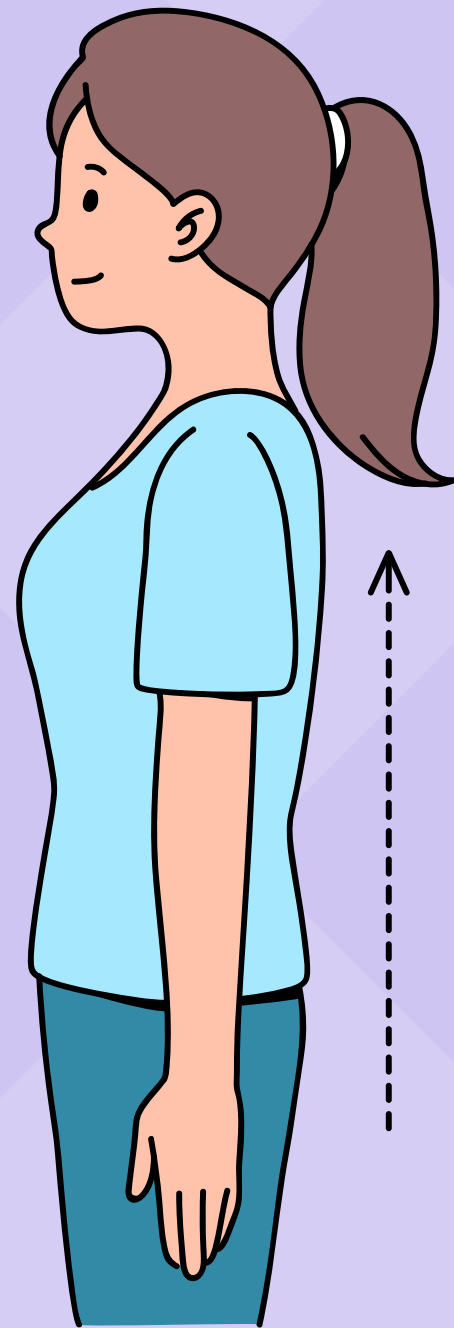
Wolff's Law says that bones change and grow based on the stress we put on them. This helps when we learn to hold up our head or walk because the spine gets stronger and forms healthy curves.

But the same rule also applies to poor posture. If someone slouches a lot, looks down at a phone all day, or sits the wrong way for a long time, the spine starts to adjust to those positions. Over time, the bones and joints can slowly change in an unhealthy way. This can lead to tight muscles, pain, and extra stress on the spine.

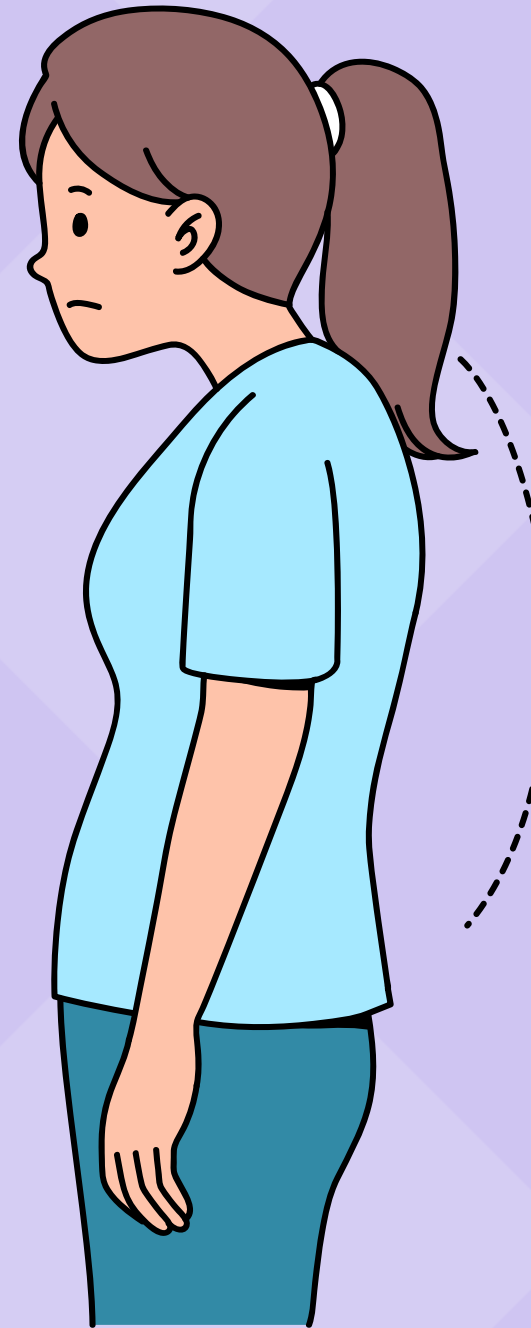
Just like good posture helps shape a strong spine, bad posture can lead to changes that cause problems.

Wolff's Law

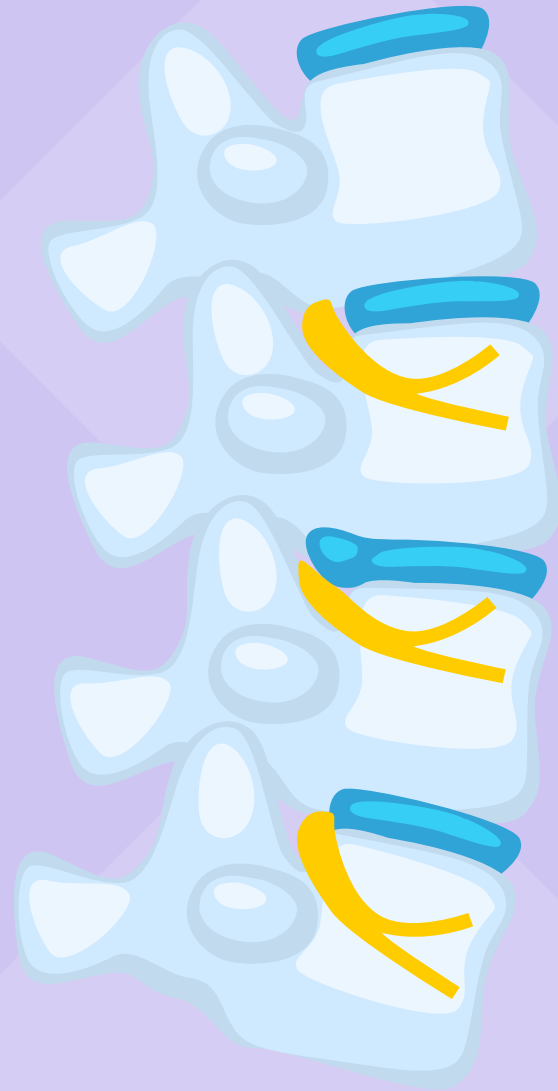
**Good posture
maintaining primary
and secondary
curves resulting in a
healthy spine**



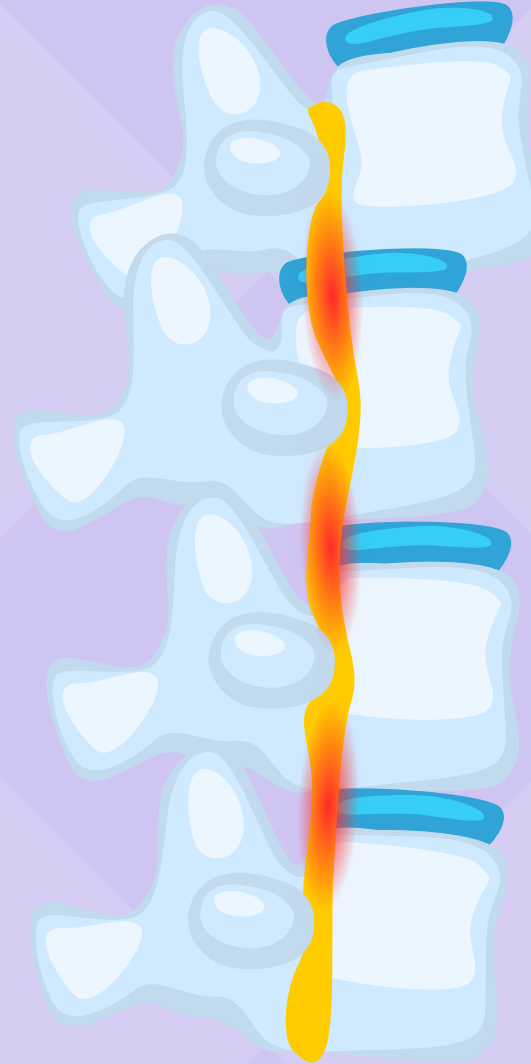
**Poor posture leading
to loss of secondary
curves leading to pain
and an unhealthy
spine**



**Side view of
norrml spine**



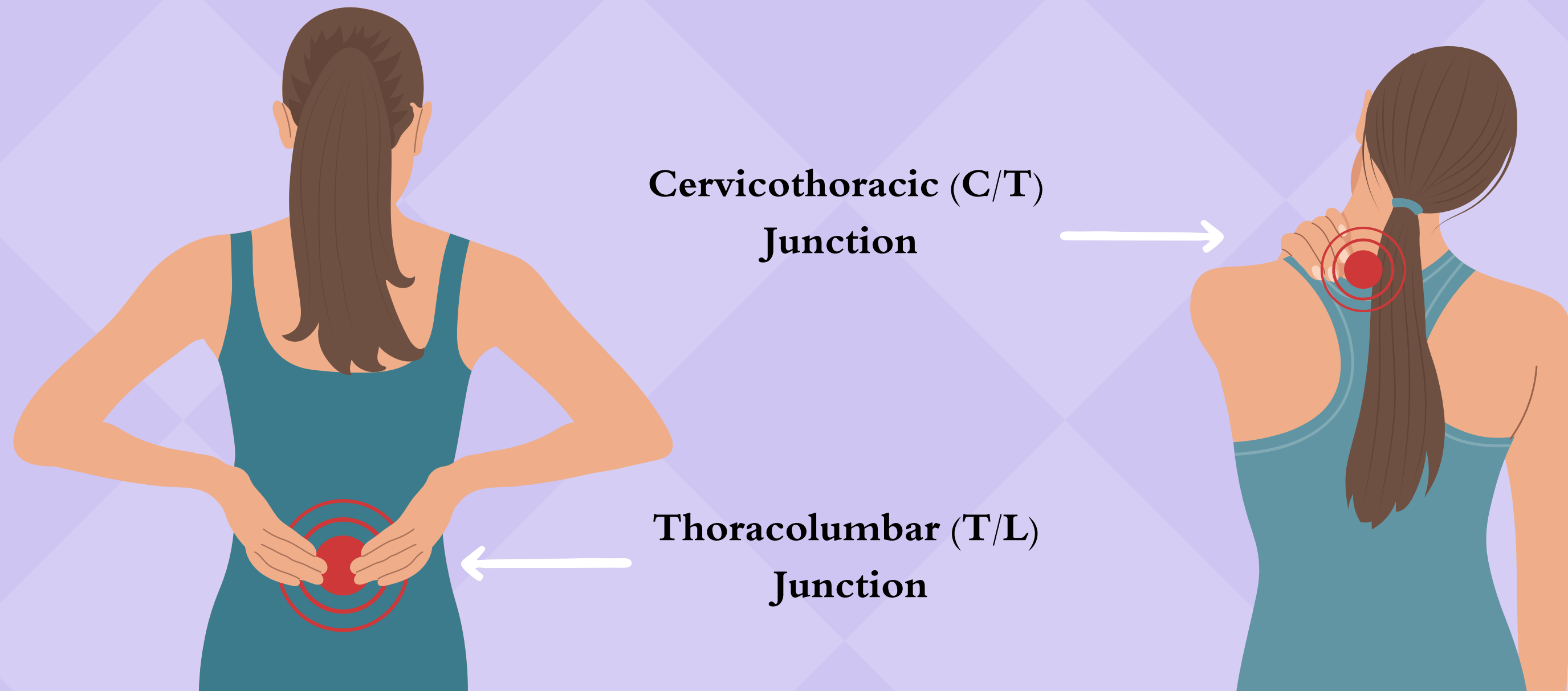
**Side view of
misaligned spine**



**Ariel view of one
segment of the
spine**



The places where the spine naturally changes direction are particularly vulnerable to postural stress–related pain.





Gravity is a constant force that's always pulling us downward—and our spine and posture have to work against it every day.

When we stand or sit with good posture, our spine is aligned in a way that balances the force of gravity. This keeps pressure evenly distributed across the bones, discs, and muscles, allowing the body to move efficiently and stay strong.

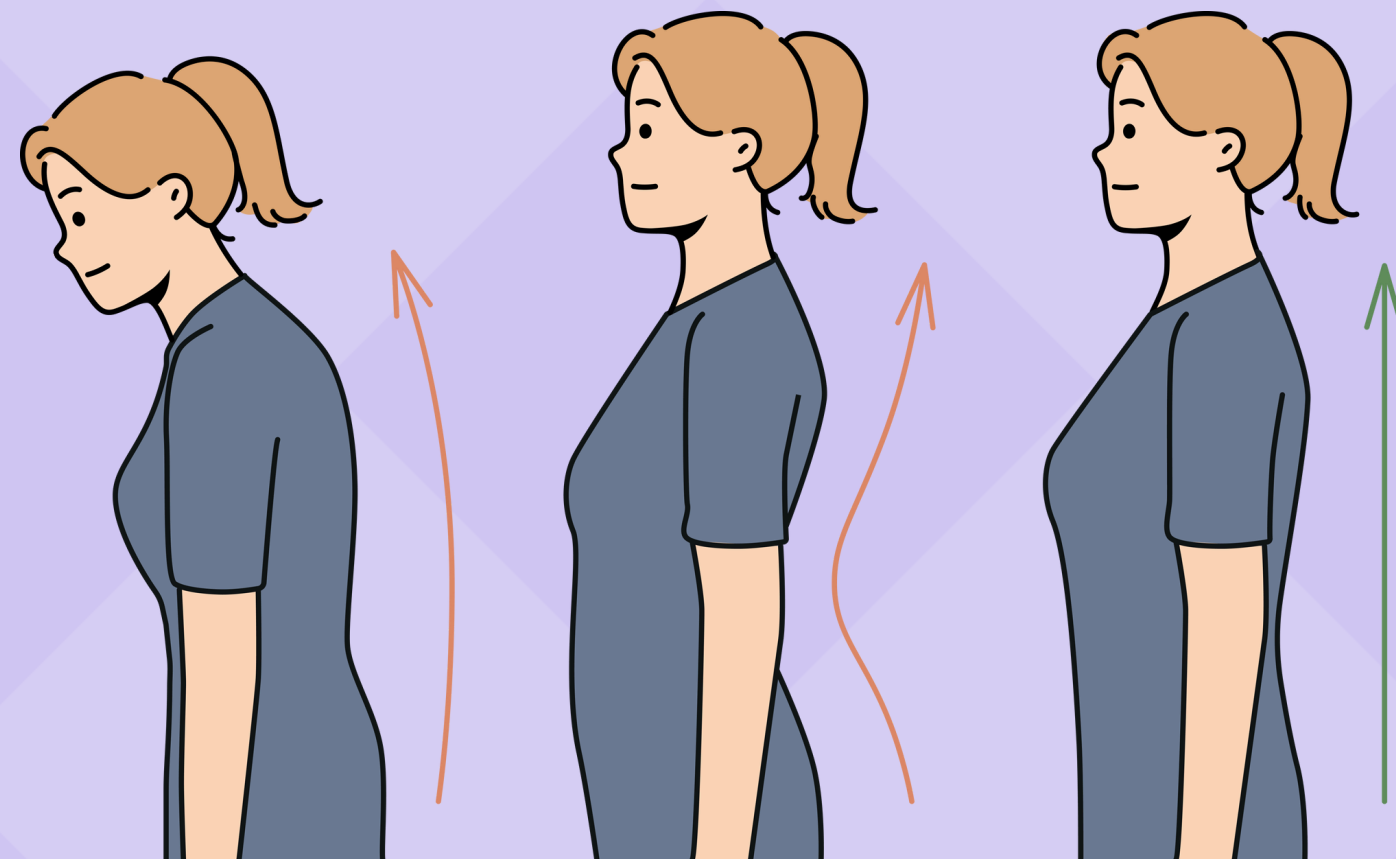
But when we have poor posture—like slouching, leaning forward, or looking down at a screen—gravity starts to work against us. It pulls more heavily on certain parts of the spine, creating uneven pressure. Over time, this can lead to muscle fatigue, joint stress, disc problems, and even changes in the shape of the spine.



Combined with Wolff's Law, this means our spine will actually start to reshape itself based on these repeated poor postures. In

other words:

Gravity never stops, so your posture needs to keep working with it—not against it—to keep your spine healthy.



Myofascial Adhesions: Why Posture Gets “Stuck” and How Exercises Help

Your muscles and the connective tissues around them — called fascia — are meant to slide and move easily. But over time, especially with poor posture or sitting too long, these tissues can become sticky and stiff. These sticky spots are called myofascial adhesions.

When adhesions build up, your muscles can't move as freely as they should. This is one big reason your posture feels “stuck.” Even if you try to stand taller, your body might not fully straighten because the muscles and fascia are too tight and glued together.

By moving, stretching, and strengthening the right muscles, you help break up these adhesions. Exercises improve circulation to the area, allowing the fascia to glide again. Over time, this helps your body reset to a healthier posture.

Simple Protocol to Improve Posture and Break Adhesions:

- 1. Release First – Gentle self-massage or using a foam roller on tight spots (like your upper back, hip flexors, or chest muscles) can help loosen adhesions.**
- 2. Stretch – Follow up with slow, focused stretches for those areas. This tells your muscles and fascia to lengthen.**
- 3. Strengthen – Strengthening the muscles that support good posture (core, glutes, mid-back) will help you hold the new, upright position more easily.**
- 4. Repeat Daily – Consistency is key. A few minutes every day can gradually restore flexibility and balance.**

By sticking to this simple routine, you'll undo the adhesions that hold you back, making it easier for your body to stand, sit, and move naturally again.

How the Brain and the Musculoskeletal System Communicate to Facilitate Posture and Movement

- Proprioception**
- Reciprocal Inhibition**

Proprioception

Proprioception is your body's ability to sense its own position and movement.

Proprioceptors — tiny sensory receptors in muscles, joints, and ligaments, especially around the spine, neck, and feet — send constant signals to your brain about your posture and alignment. These signals help you stay upright and balanced by telling your muscles when to adjust, so you can maintain a properly aligned spine without thinking about it.

Your body relies on proprioception every day — like when you adjust your posture without looking in a mirror, walk on uneven ground without losing your balance, hold your head upright while working at a desk, or catch yourself if you trip or lose your footing. When proprioceptors are underused due to too much sitting or poor habits, they become less accurate. This can lead to slouching, muscle tension, discomfort, or even pain.

To improve proprioception, exercises like yoga, pilates, balance training, and targeted strength work help “wake up” these receptors and retrain your body to sense its position more precisely. This naturally supports better posture, alignment, and movement over time.

Proprioception is like a scale that tells your brain where your body is. If the scale isn’t calibrated, your sense of balance and posture can be off.



It’s also like swinging at a piñata blindfolded — you can’t see, but your body still knows where your arms and legs are.



Reciprocal Inhibition

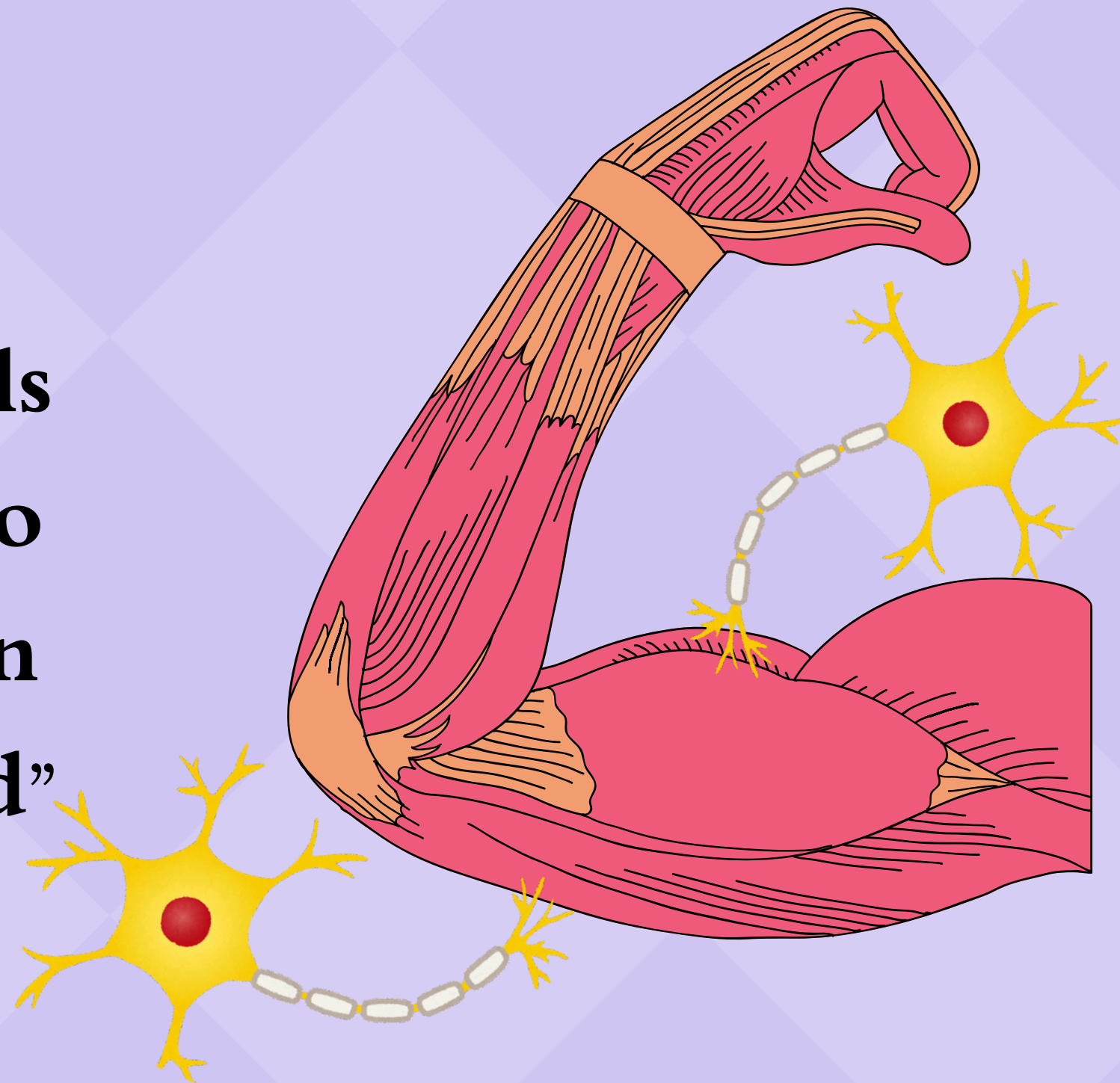
Reciprocal inhibition is a key principle in how our muscles and nervous system work together to create smooth, coordinated movement. It's controlled by the brain and spinal cord.

Here's how it works: when the brain sends a signal to a muscle to contract—for example, your biceps when you bend your elbow—it also sends a signal to the opposing muscle (in this case, the triceps) to relax. This allows the movement to happen without resistance. This system keeps movements efficient and protects joints from strain.

Reciprocal Inhibition

Example: flexing the biceps

The brain tells
the Triceps to
relax/lengthen
it is “inhibited”



The brain tells
the biceps to
contract/shorten
it is ‘facilitated’

Reciprocal Inhibition

But when posture is poor or certain muscles are overused (like sitting all day or constantly looking down at a phone), the brain starts to reinforce imbalances. It keeps sending signals to certain muscles to stay tight and active, while the opposing muscles become underused and weak. Over time, the brain “learns” this pattern—even though it’s dysfunctional.

This becomes a postural imbalance, where some muscles are always switched “on” and tight (like hip flexors or chest muscles), while others stay “off” and weak (like glutes or upper back muscles). This uneven tension can pull the spine out of alignment, affect the curves of the spine, and lead to pain, stiffness, or injury.

In summary:

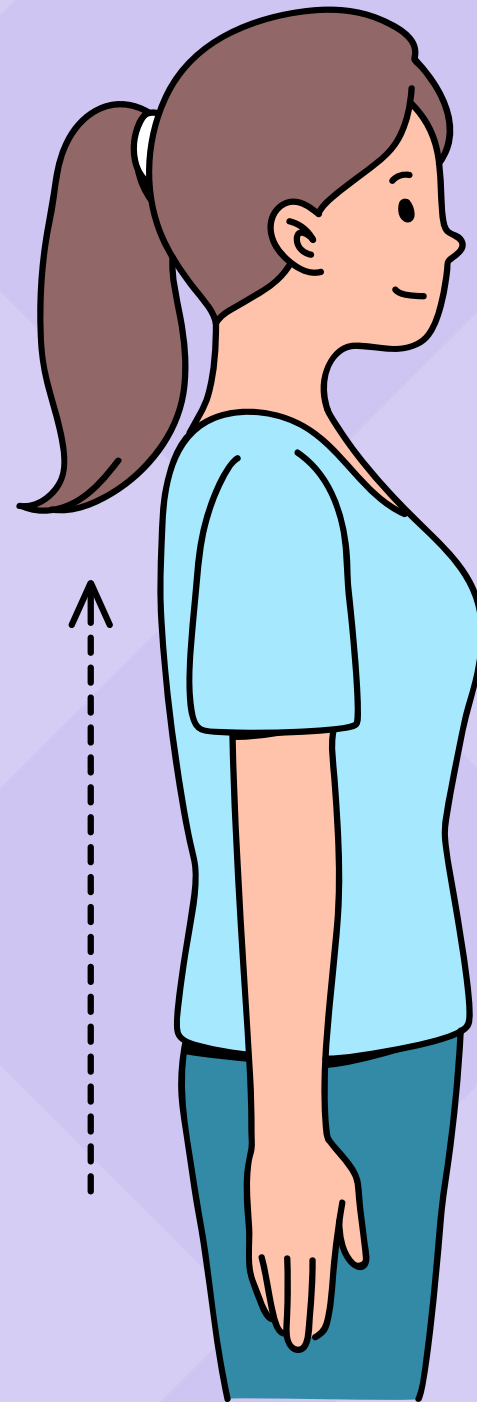
Reciprocal inhibition is meant to create balance, but bad posture and repetitive habits can retrain the brain to keep certain muscles locked in imbalance—pulling the spine out of healthy alignment over time.



Balanced Posture

The spine is in line.

**No postural
imbalance is seen.**

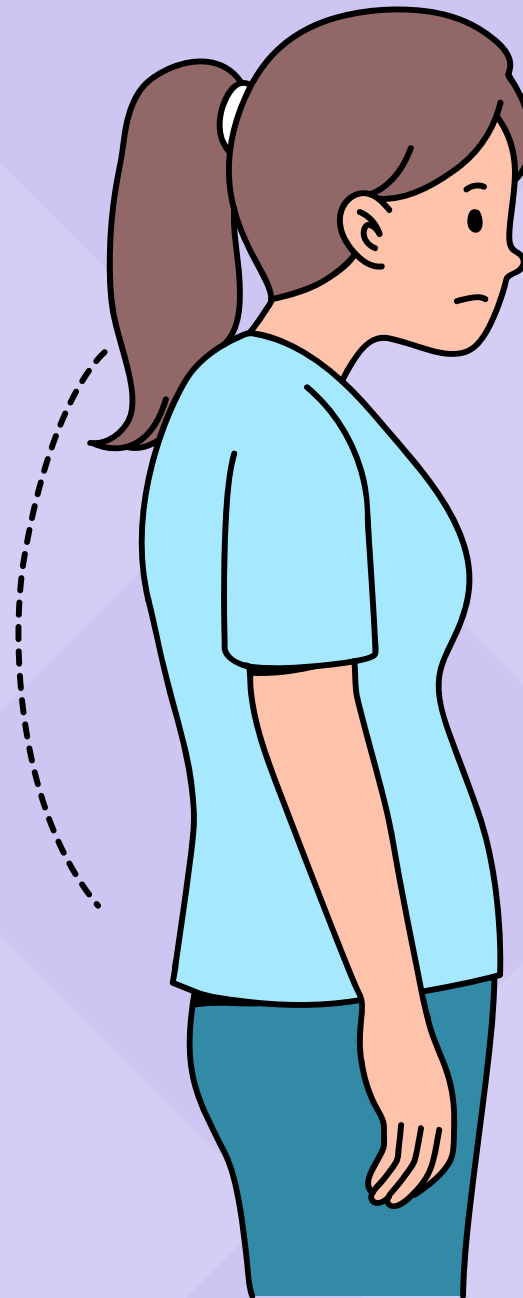


**Muscles in the front
and back of neck
are in balance and
so are the chest and
back muscles.**

Postural Imbalance

**Back of neck
muscles are tight
“facilitated”.**

**The spine in the midback
is excessively rounded
and the muscles there are
weak or “inhibited”.**



**Front of neck muscles are
weak “inhibited” leading
to forward head carriage.**

**Chest muscles are tight
“facilitated” making the
shoulders rounded and
forward.**

Upper and Lower Cross Syndrome

These are examples of how the body loses its natural muscular balance—often as a result of poor posture, gravity, and disrupted reciprocal inhibition.

Upper Cross: This pattern often develops from forward head posture and slouching—like when we spend hours at a computer or looking down at a phone. The brain, through reciprocal inhibition, keeps overusing certain muscles while allowing their opposites to weaken. Over time, this pulls the shoulders forward and the head out of alignment, disrupting the spine's natural curves.

Lower Cross: This commonly develops from prolonged sitting and a sedentary lifestyle. The brain gets used to keeping the hip flexors tight and the glutes relaxed, throwing off pelvic alignment and creating excessive curve in the lower spine.

Upper Cross Syndrome–Muscle Patterns

Muscles that are weak or “inhibited” and need strengthening

- deep cervical flexors
- lower trapezius
- serratus anterior
- rhomboids

Muscles that are tight or “facilitated” and need stretching

- upper trapezius
- levator scapulae
- pectoralis major & minor

Upper Cross Syndrome (UCS)

**weak/inhibited
muscles**

**tight/facilitated
muscles**

**tight/facilitated
muscles**

**weak/inhibited
muscles**



Lower Cross Syndrome–Muscle Patterns

Muscles that are weak or “inhibited” and need strengthening

- gluteus maximus and medius
- abdominals (transversus abdominis, obliques)

Muscles that are tight or “facilitated” and need stretching

- Iliopsoas
- rectus femoris
- erector spinae

Lower Cross Syndrome (UCS)

**weak/inhibited
muscles**

**tight/facilitated
muscles**

**tight/facilitated
muscles**

**weak/inhibited
muscles**



What's the Difference Between Postural Imbalance and Scoliosis?

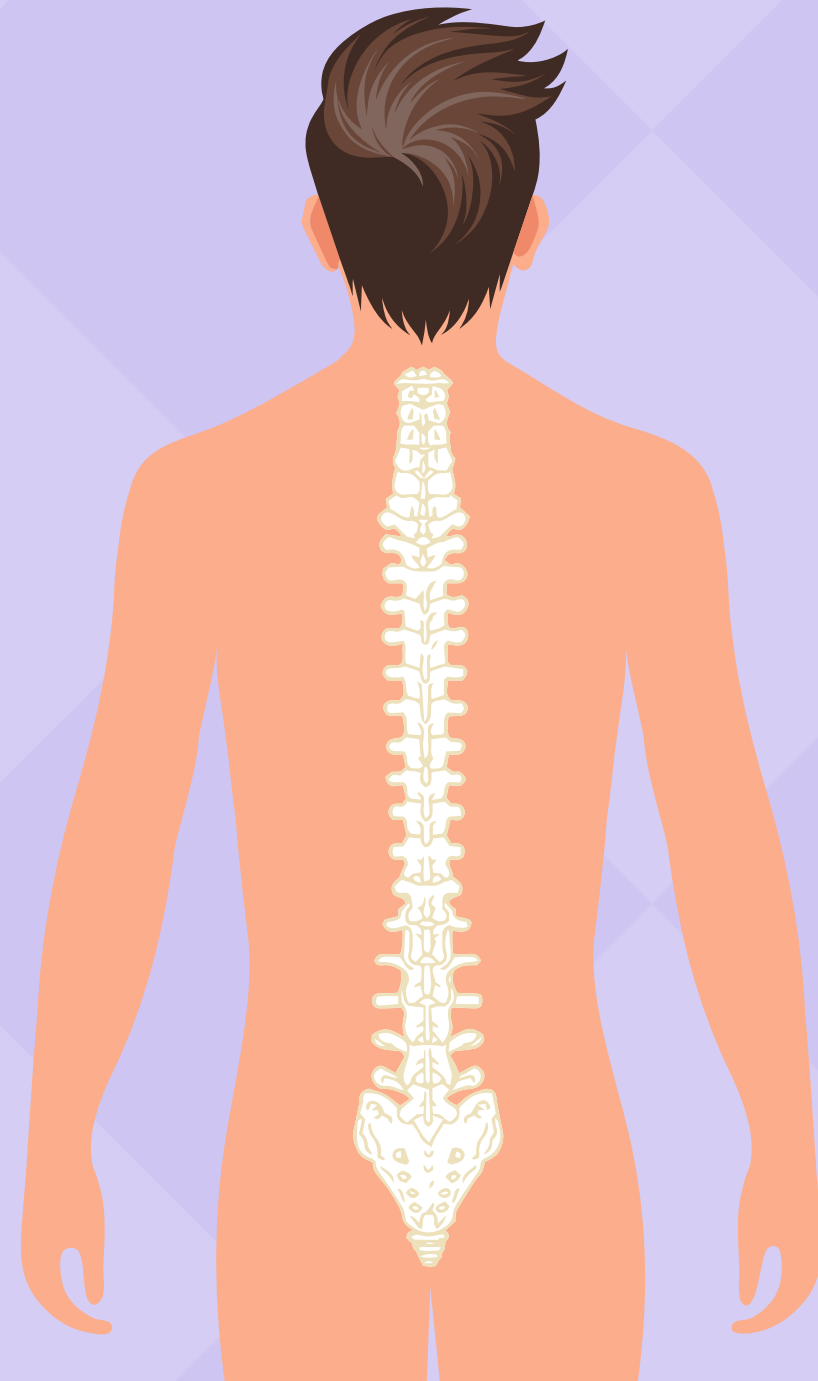
When looking at the spine from the side, a healthy spine has three natural curves. The neck curves slightly inward, the upper back curves slightly outward, and the lower back curves slightly inward again. These curves help with balance and shock absorption.

When looking at the spine from behind, a healthy spine should appear straight from the top of the neck down to the tailbone, with no side-to-side curves.

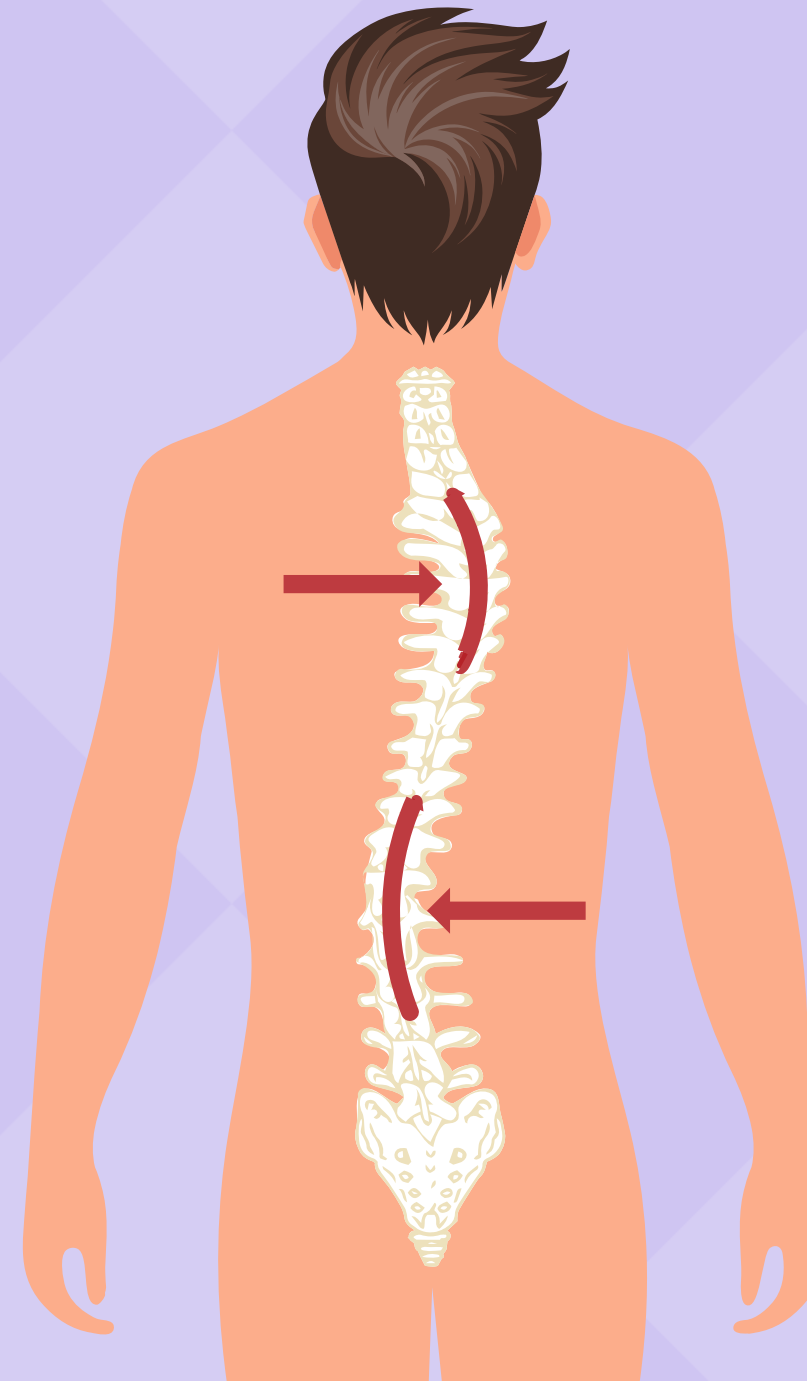
Postural imbalance happens when muscles are weak or tight, or when someone has poor posture. It can make the body look uneven, but the spine itself is still straight and the changes are usually temporary. Postural imbalance can often be corrected with stretching, strengthening, and improved posture habits.

Scoliosis is a condition where the spine actually curves sideways in an S or C shape when viewed from behind. It is a structural change, not just a postural one, and may need medical care such as monitoring, bracing, or other treatments depending on how severe it is.

Normal Spine



Scoliosis Spine



Postural imbalances occur when the body's alignment is off due to muscle imbalances, poor habits, or environmental factors. It's a functional issue, not a structural deformity. This is what we see in Upper and Lower Cross Syndromes.

Causes:

- **Slouching**
- **Sedentary lifestyle**
- **Muscle weakness/tightness**
- **Repetitive movements or asymmetrical tasks (like always carrying a bag on one shoulder)**

Key Characteristics:

- **Usually reversible with exercise, stretching, and awareness**
- **Doesn't involve permanent spinal changes**
- **No twisting or rotation of the spine itself**

Treatment:

- **Postural retraining**
- **Corrective exercises**
- **Physical therapy or chiropractic care**
- **Ergonomic changes**

Scoliosis is a structural, three-dimensional curvature of the spine, often including rotation of the vertebrae. It's a medical condition, not just a posture issue.

Causes:

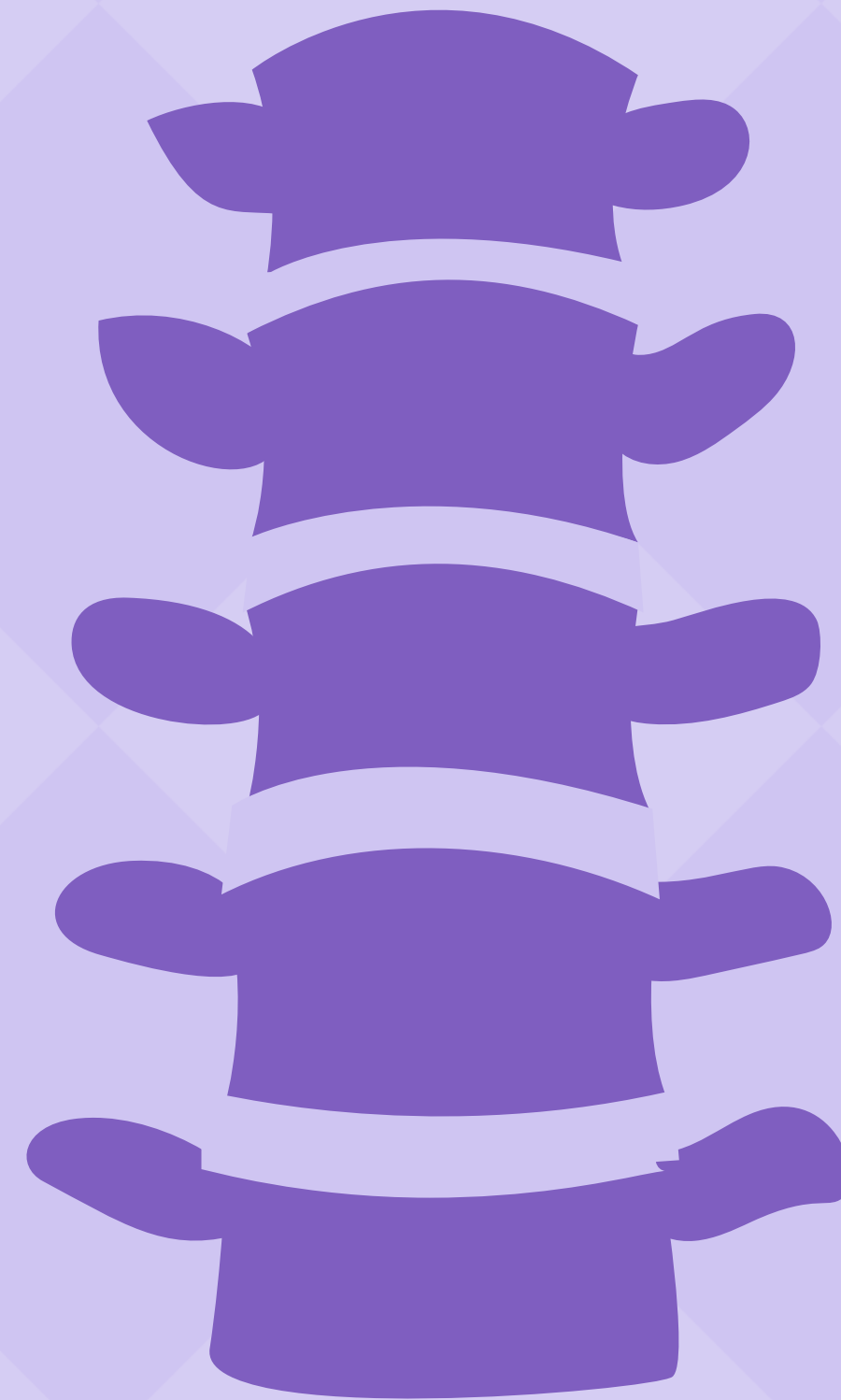
- **Idiopathic (most common, especially in teens)**
- **Congenital (from birth)**
- **Neuromuscular (e.g., from cerebral palsy, muscular dystrophy)**

Key Characteristics:

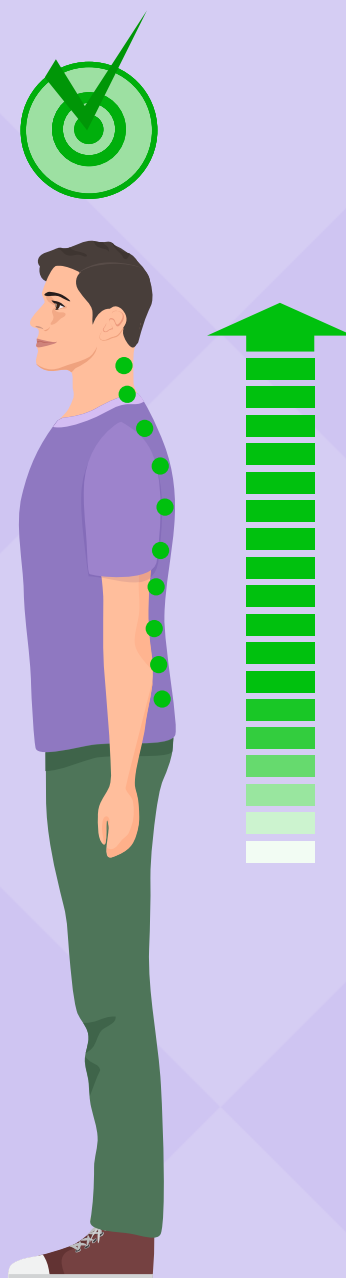
- **Visible spine curvature on X-ray (C- or S-shape)**
- **Uneven shoulders, hips, or rib cage**
- **May or may not cause pain**
- **Can progress over time, especially during growth spurts**

Treatment:

- **Monitoring (for mild curves)**
- **Bracing (in growing adolescents)**
- **Surgery (in severe cases)**
- **Physical therapy or scoliosis-specific exercise for management**



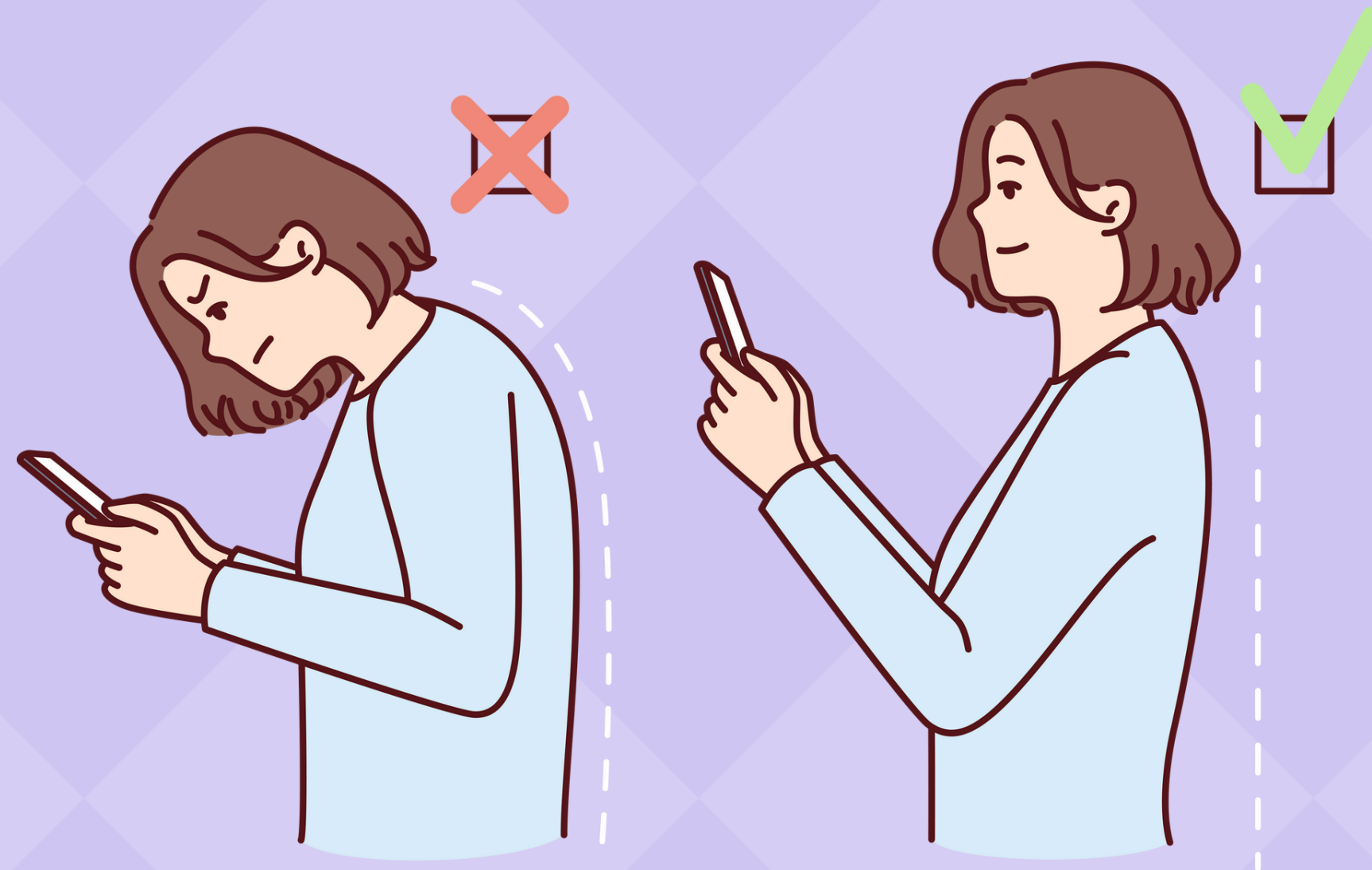
KEEP
THE
SPINE
IN
LINE



The ears should be aligned with the shoulders, which should be aligned with the hips, which should be aligned with the ankles (when standing).



**Don't bring your face to your phone—bring your phone to
your face**



Ideal Posture When Sitting at the Computer

When sitting at a desk and using a computer, it's important to keep your body in a healthy position to avoid strain.

Sit all the way back in your chair with your back supported. Your feet should be flat on the floor, and your knees should be level with or slightly lower than your hips. Your shoulders should be relaxed, not hunched.

The top of your computer screen should be at or just below eye level, so you don't have to bend your neck up or down. Keep the screen about an arm's length away from your face.

Your keyboard and mouse should be close enough so you don't have to reach. Keep your elbows bent at about a 90-degree angle and close to your body, with your wrists straight and relaxed.

Take a short break every 30 to 60 minutes to stand up, stretch, or walk around. Moving regularly helps prevent stiffness and improves circulation.





**"You don't need the perfect chair – you
need to get out of it more often."**

—Deborah Ben-Shah, DC

Sleeping Posture Do's and Don'ts

Do:

Sleep on your back or side, not your stomach.

Use a pillow that keeps your head in line with your spine.

If you sleep on your side, place a pillow between your knees to support your hips.

If you sleep on your back, place a small pillow under your knees to reduce lower back strain.

Choose a firm mattress that supports your spine's natural curves.

Don't:

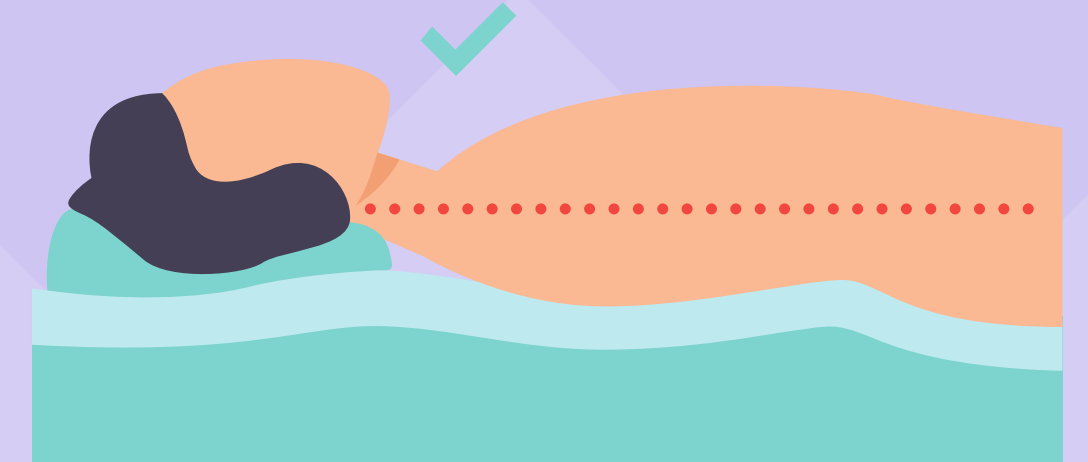
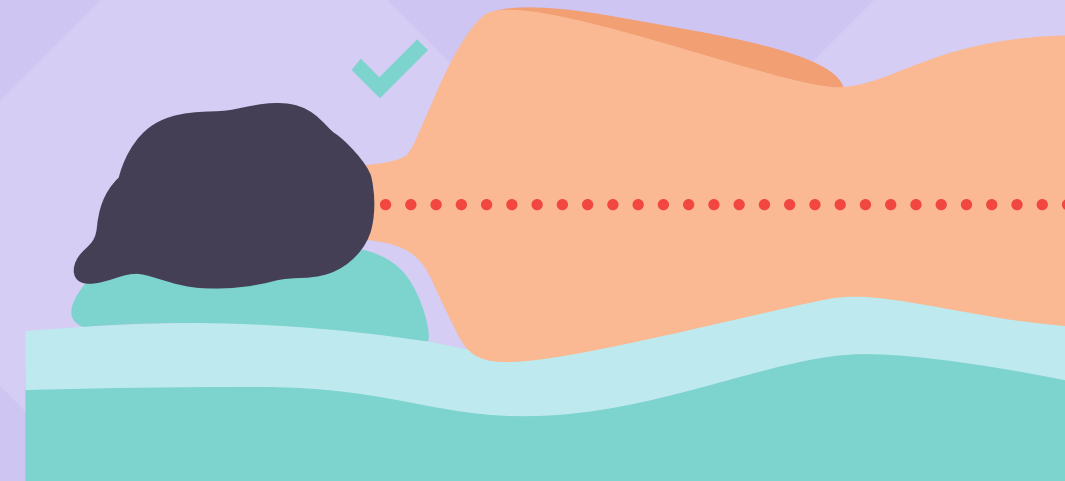
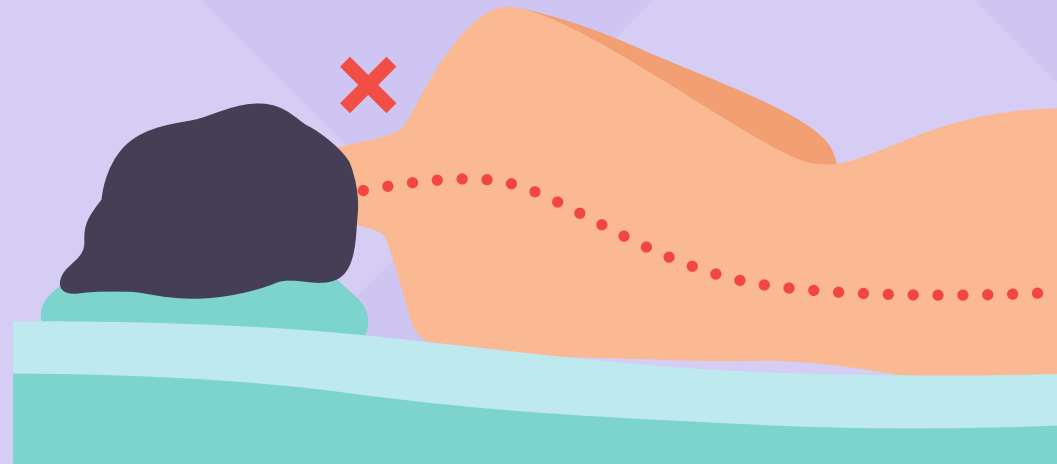
Don't use a pillow that's too high or too flat—it can strain your neck.

Don't sleep on your stomach—it twists your neck and puts pressure on your lower back.

Don't sleep with your arm under your pillow or head—it can cause shoulder or neck pain.

Don't ignore pain—if you wake up stiff or sore often, your pillow or mattress may need to be changed.

If your head leans too far forward, a big pillow can make it worse. Choose a flatter, firmer pillow that keeps your neck straight. Too flat, and your head drops back, which can also cause strain. The right pillow keeps your head, neck, and spine in a straight, neutral position. Always make sure that the pillow supports the neck.



Sleeping on your stomach is a big no–no. Would you sit and turn your head and hold it for 6–8 hours? That’s what you do when you sleep on your stomach.

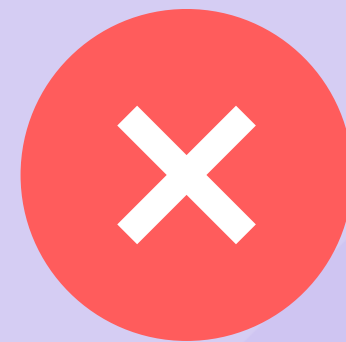


Postures to Avoid

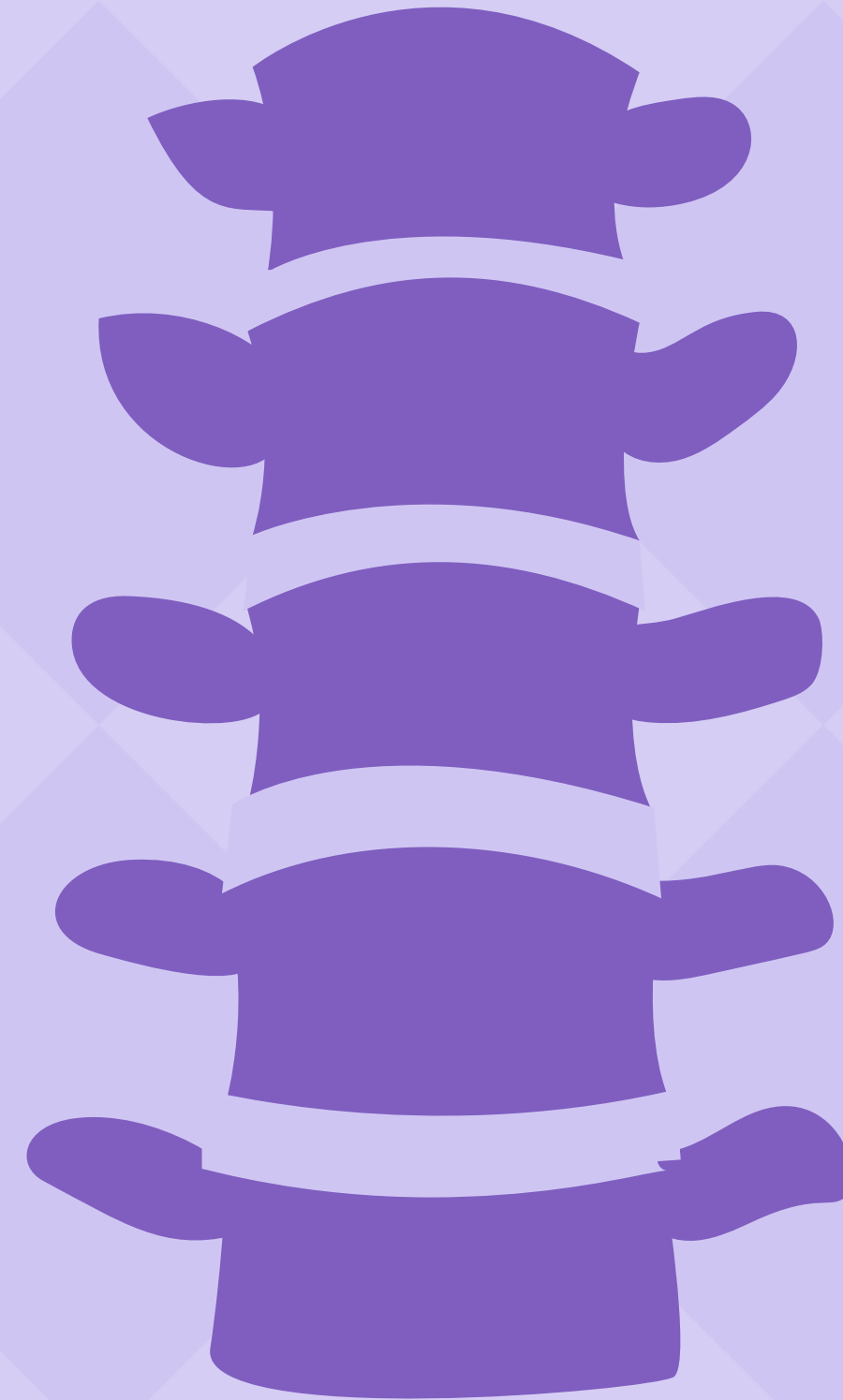


Tips for Carrying Purses, Backpacks, etc.

- Choose a backpack with wide, padded straps and wear it on both shoulders.
 - Adjust the straps so the backpack sits close to your back — not too low or swinging.
 - Carry lighter loads and only what you need.
 - If using a purse, switch sides often or wear a cross-body style to balance the weight.
 - Don't carry a heavy purse on one shoulder all the time — this can cause muscle imbalance.
 - Don't let a backpack hang too low; it pulls your spine out of alignment.
 - Avoid overstuffing your bag — aim for no more than 10–15% of your body weight
 - Don't lean forward or hike up one shoulder to hold your bag.
 - Keep your spine upright and your shoulders level.
 - If your bag feels too heavy, lighten the load or split it between hands or both shoulders.
- This protects your neck, shoulders, and back long-term.





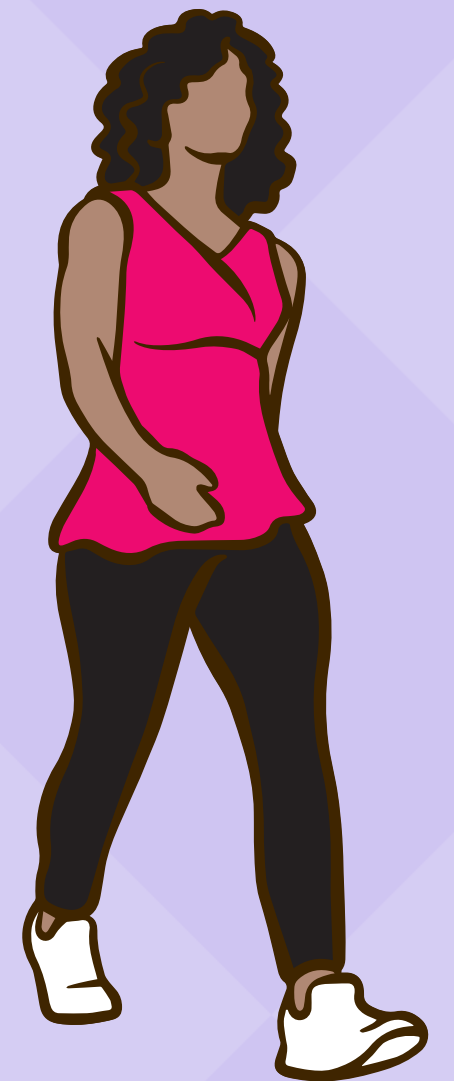
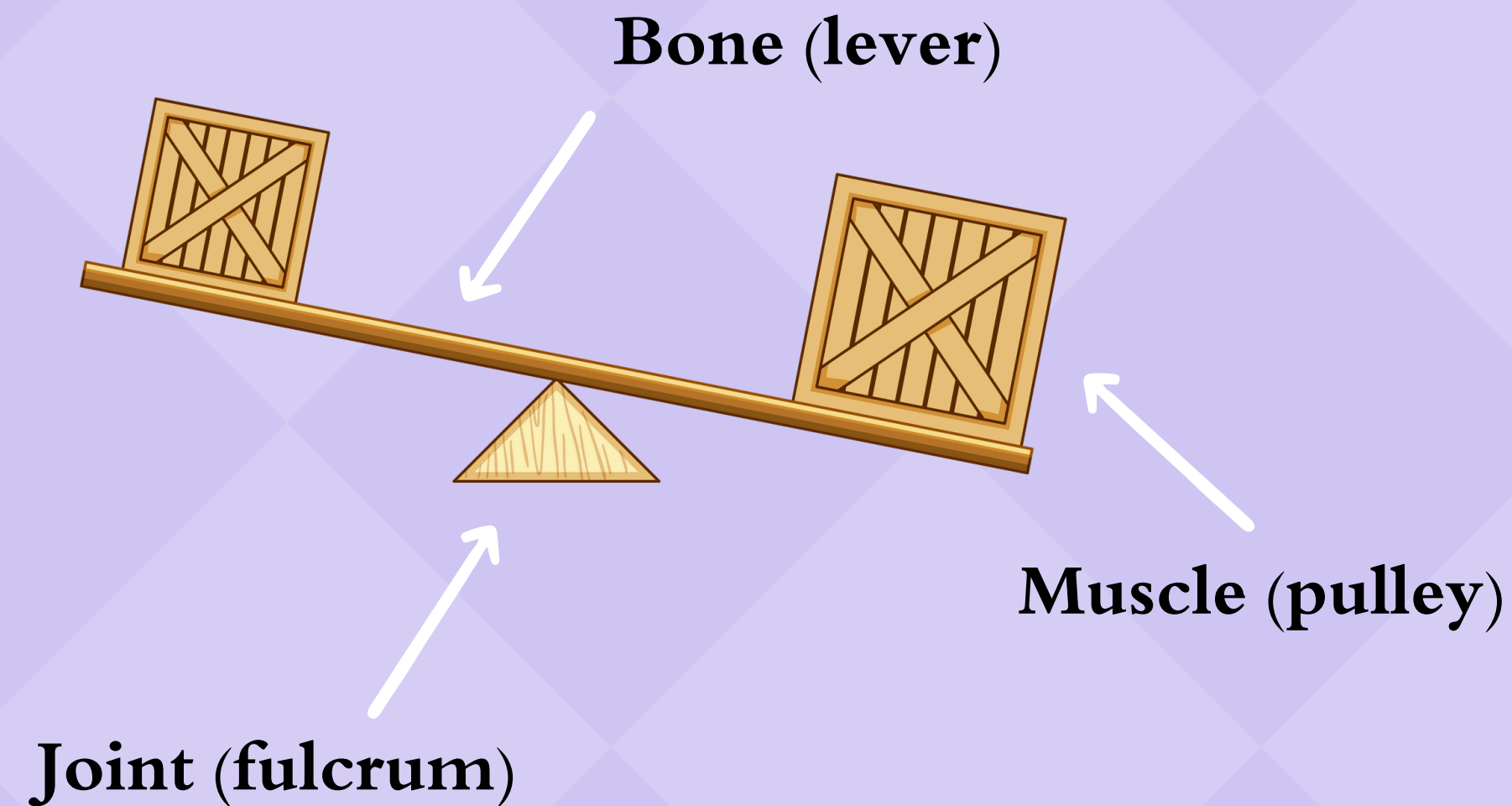
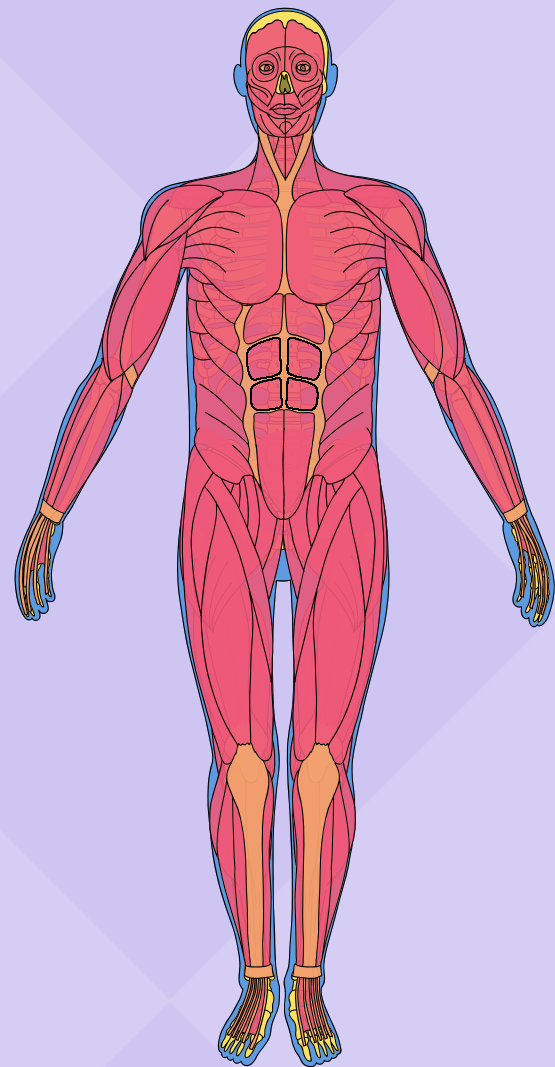


KEEP
THE
SPINE
IN
LINE

The best advice I can offer my patients these days is not to sit up straight and have the perfect ergonomics, but simply to move their bodies more. Little and often throughout the day.

The human body is a lever system with a means of locomotion designed for movement and to work with our hands. we are not designed for Uber Eats, sitting at computers all day, and being couch potatoes.

In a lever system, bones act as the levers, joints serve as the fulcrum (pivot point), and muscles provide the force (effort) to move the bones around the joint. This interplay of bones, joints, and muscles allows for movement and mechanical advantage in the body.





How Can We Incorporate More Movement Into Our Lives

Walking: The Movement We Were Made For

Walking is one of the most natural things we can do. Our bodies were built for it. Before cars and screens, walking was how humans moved through the world—hunting, gathering, exploring, and surviving. It’s what our muscles, joints, and posture were designed to support. Walking doesn’t take special equipment—just a good pair of shoes and a little time each day. Even 20–30 minutes of walking can make a big difference.

Regular walking improves your overall health in many ways:

- Supports heart and lung health**
- Helps manage weight and blood sugar**
- Boosts circulation and reduces swelling**
- Strengthens your legs, glutes, and core**
- Improves mood, reduces stress, and clears your mind**
- Supports digestion and hormone balance**
- Helps you sleep better**

Walking helps reset the body's natural alignment by:

For Upper Cross Syndrome:

- Encouraging the head to stay over the spine
- Opening the chest and pulling the shoulders back
- Activating the upper back muscles
- Releasing tight neck and shoulder muscles

For Lower Cross Syndrome:

- Activating glutes and core muscles
- Stretching tight hip flexors and lower back muscles
- Supporting proper alignment of the pelvis
- Strengthening the hamstrings and stabilizing the spine

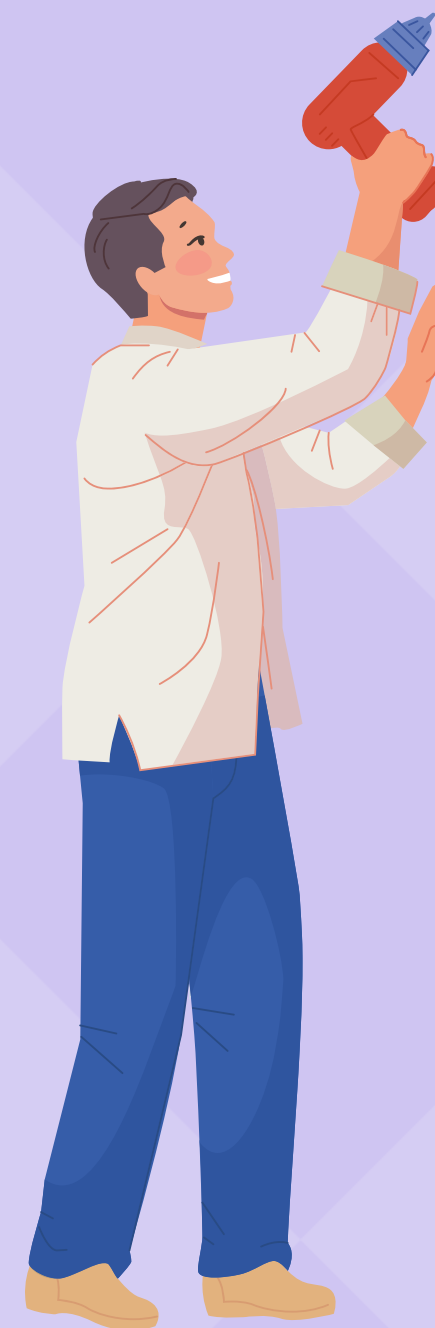
When done mindfully, walking becomes more than movement—it becomes medicine for your posture, your muscles, and your overall well-being.



Taking Stairs More Often



Working On Projects at Home



Playing With Your Children



Gardening and Yardwork



Cooking and Baking



Cleaning Your Home



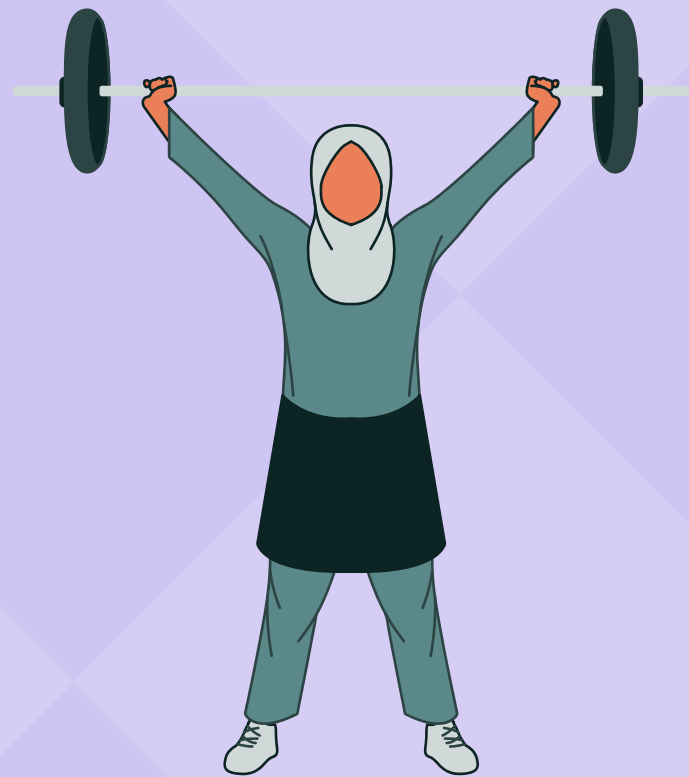
Dancing



Volunteering Activities in Your Community



Whole Body Movement Exercise Options

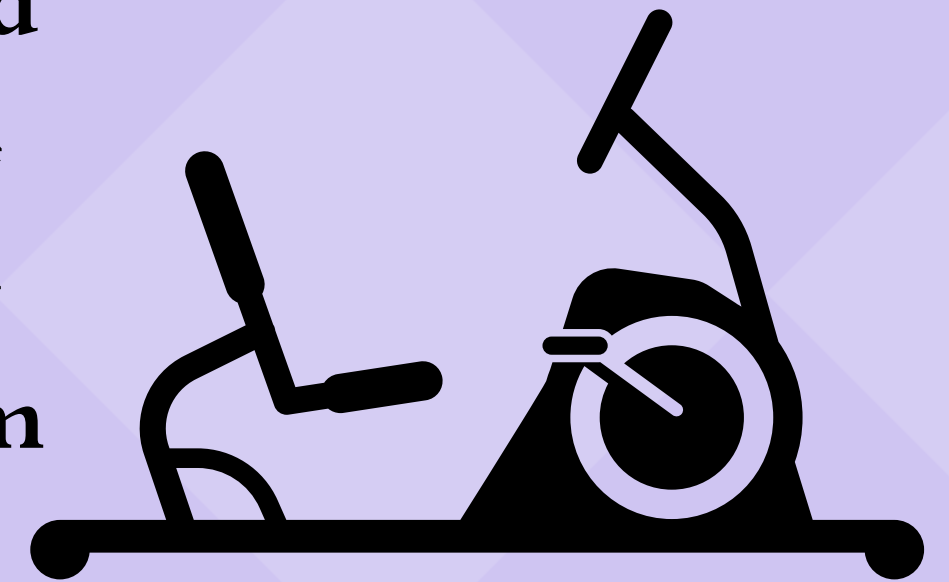




Riding a bike is a fun and popular exercise. However, it is not a natural movement that we are designed for. If you choose it as a form of exercise, then there are some optimal ways to do it.



Spinning in moderation. It tightens hip flexors, and the bent forward posture means back muscles are working too hard to resist gravity and it is a rhythmic static exercise where only the legs are moving but not the torso. The recumbant bike at the gym is a better alternative as it has you leaning back rather than forward, reducing the strain on the back muscles.



This is better because it allows the whole body to move more. But you are still bent over and resisting the force of gravity too much causing a strain on the back muscles.



Dutch bikes are better for your back because you sit upright, so your back stays straight instead of hunched over. Your neck and shoulders stay relaxed since you don't have to reach far forward. There's less pressure on your hands, wrists, and spine. Your hips stay in a comfortable, natural position. In short, a Dutch bike lets you ride in a way that's gentler on your back and joints.



**"Sit right, stand tall, but most of all
– move often."**

—Deborah Ben-Shah, DC

How to Get the Most out of Your Stretching Routine

How Long to Hold a Stretch:

Less than 20 seconds:

→ Not long enough. Your muscles might tighten up instead of relaxing.

At least 30 seconds:

→ This is the sweet spot. Your body starts to relax and allow the muscle to stretch.

60 to 90 seconds:

→ Even better. This helps make longer-lasting changes to muscle length.

For Permanent Results:

- Stretch the muscle every day or most days.**
- Hold each stretch for at least 30–60 seconds.**
- Keep this up for 6 to 8 weeks (or longer).**

If you want to permanently lengthen a muscle and not just get temporary flexibility, how long you hold the stretch really matters. Two things in your body help control this:

Two Key Parts of Your Body Involved in Stretching:

1. Muscle Spindles

These are like alarm systems inside your muscles.

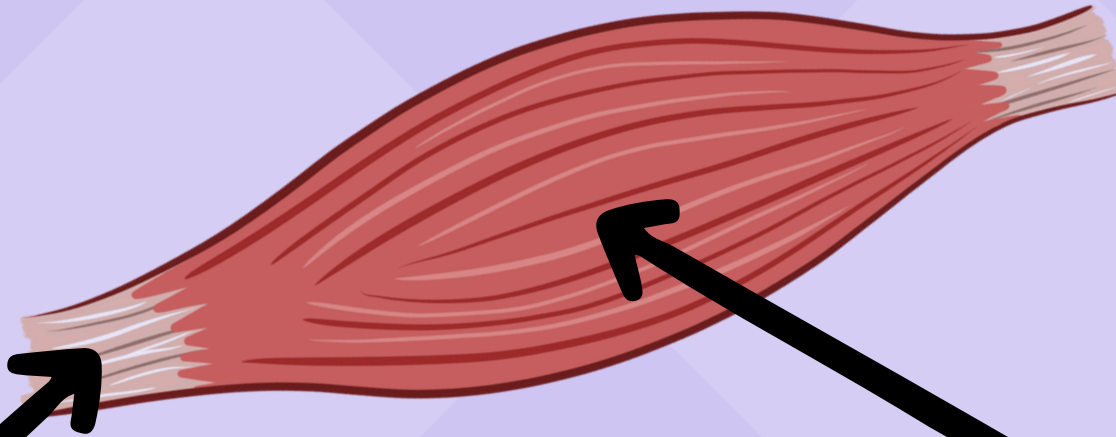
They sense when a muscle is stretching too fast and make it tighten to protect itself

2. Golgi Tendon Organs (GTOs)

These are sensors in your tendons.

When a stretch is held long enough, they tell the muscle to relax, so it can stretch further without getting hurt.

Example: Stretching the Hamstrings



golgi tendon organs:
respond to slow, steady stretching by telling
the muscle to relax after holding stretch for
30 seconds.

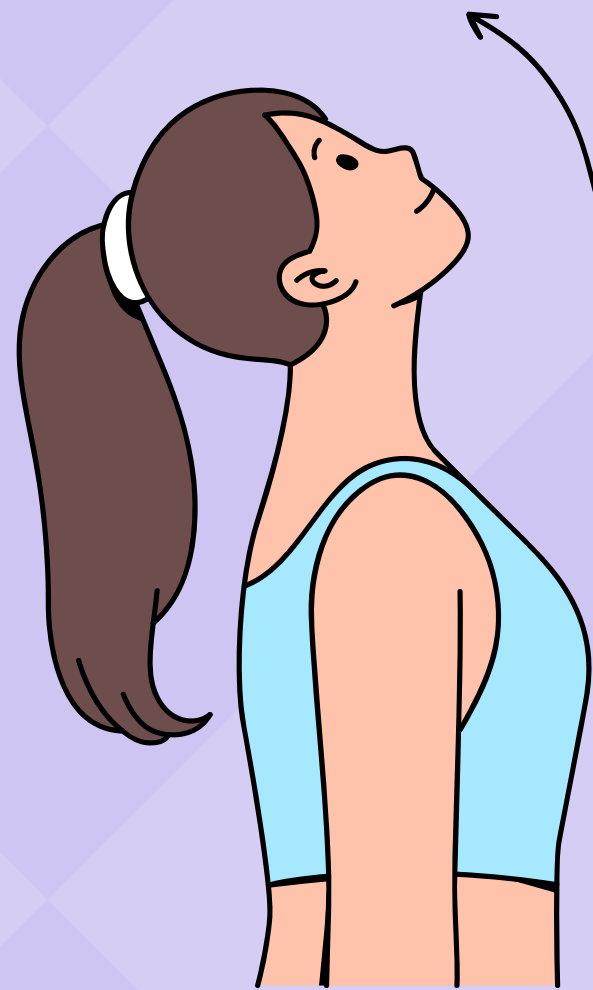
muscle spindles:
react to fast stretching by tightening
the muscle to protect it.

‘Anytime Anywhere’ and ‘Desk’ Exercises to Relieve Pain and Tension

Roll your shoulders back and down a few times then leave them there relaxed. Keep your chin tucked and your ears over your shoulders. Do often throughout the day.



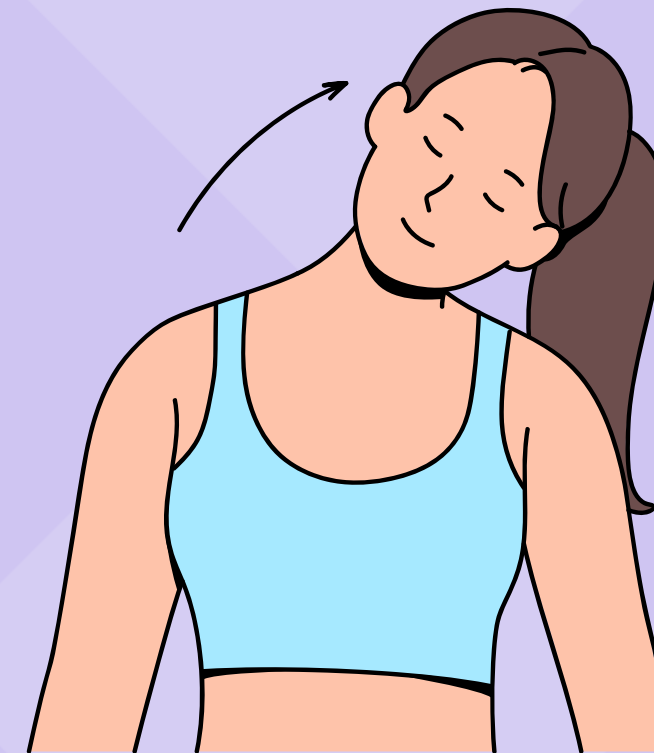
Look up and hold for 30 to 60 seconds. Look down and hold 30 to 60 seconds.



Relax your neck so that your chin is touching your chest. Turn your head to the left and hold for 30 to 60 seconds. Then turn your head to the right and hold for 30 to 60 seconds.



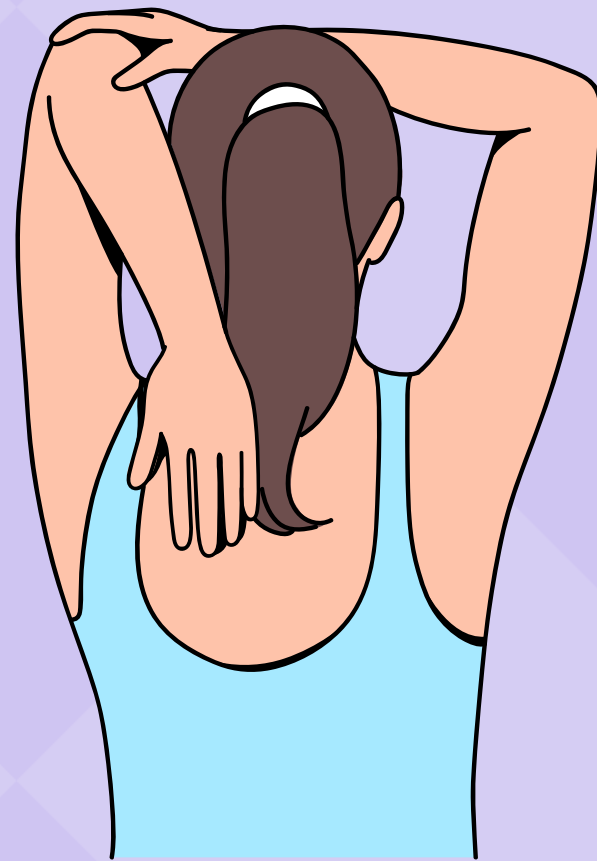
Put your ear on your right shoulder and hold for 30 to 60 seconds. Then put your ear on your left shoulder and hold for 30 to 60 seconds.



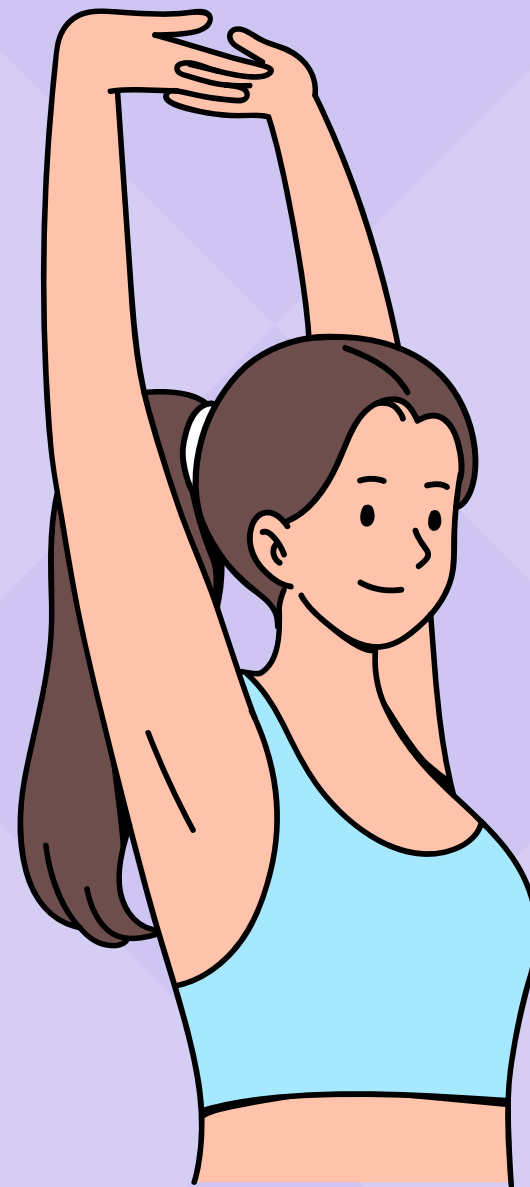
**Put your ear on your right shoulder and pull gently using your fingers—
hold for 30 to 60 seconds. Then do the same thing on your left shoulder
and hold for 30 to 60 seconds.**



Reach behind your back and have your hand touch between your shoulder blades. Stabilize the elbow with the opposite hand. Hold for 30 to 60 seconds. Repeat on the other side and hold for 30 to 60 seconds.



Lace your fingers together and reach up over your head like you're pressing the ceiling up. Hold for 30 to 60 seconds.



Lock your fingers behind the back of your head and open the elbows to stretch out the chest. Hold for 30 to 60 seconds.



Open your arms out as far as you can to stretch the chest muscles. Hold for 30 to 60 seconds.



Without bending forward, reach the arms forward as far as you can to stretch the upper back muscles. Hold for 30 to 60 seconds.



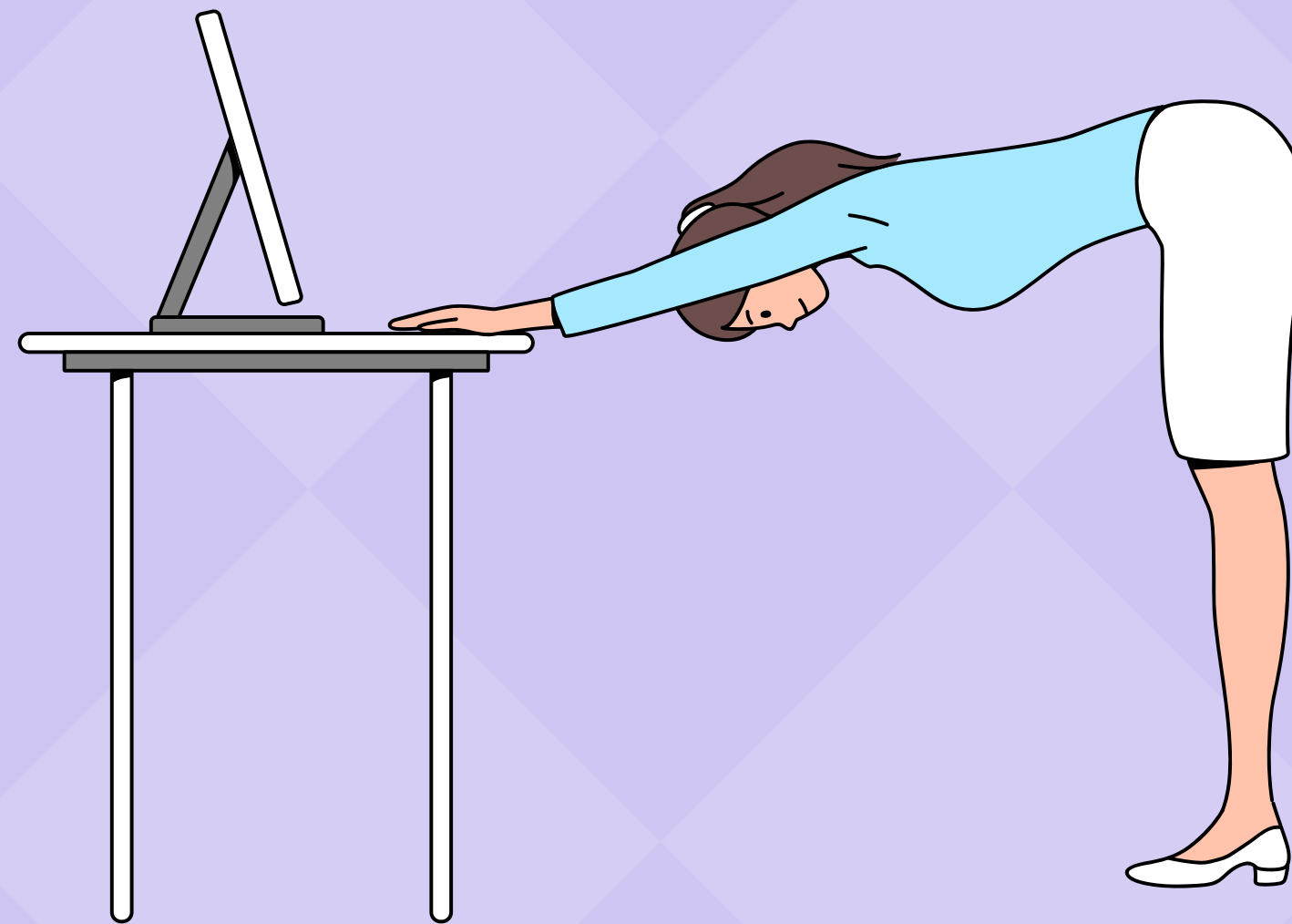
Put your legs straight out and pull the toes back to stretch the calf muscles. Hold for 30 to 60 seconds.



Bend forward and touch the toes without rounding your low back to stretch the hamstrings and back muscles. Hold for 30 to 60 seconds.



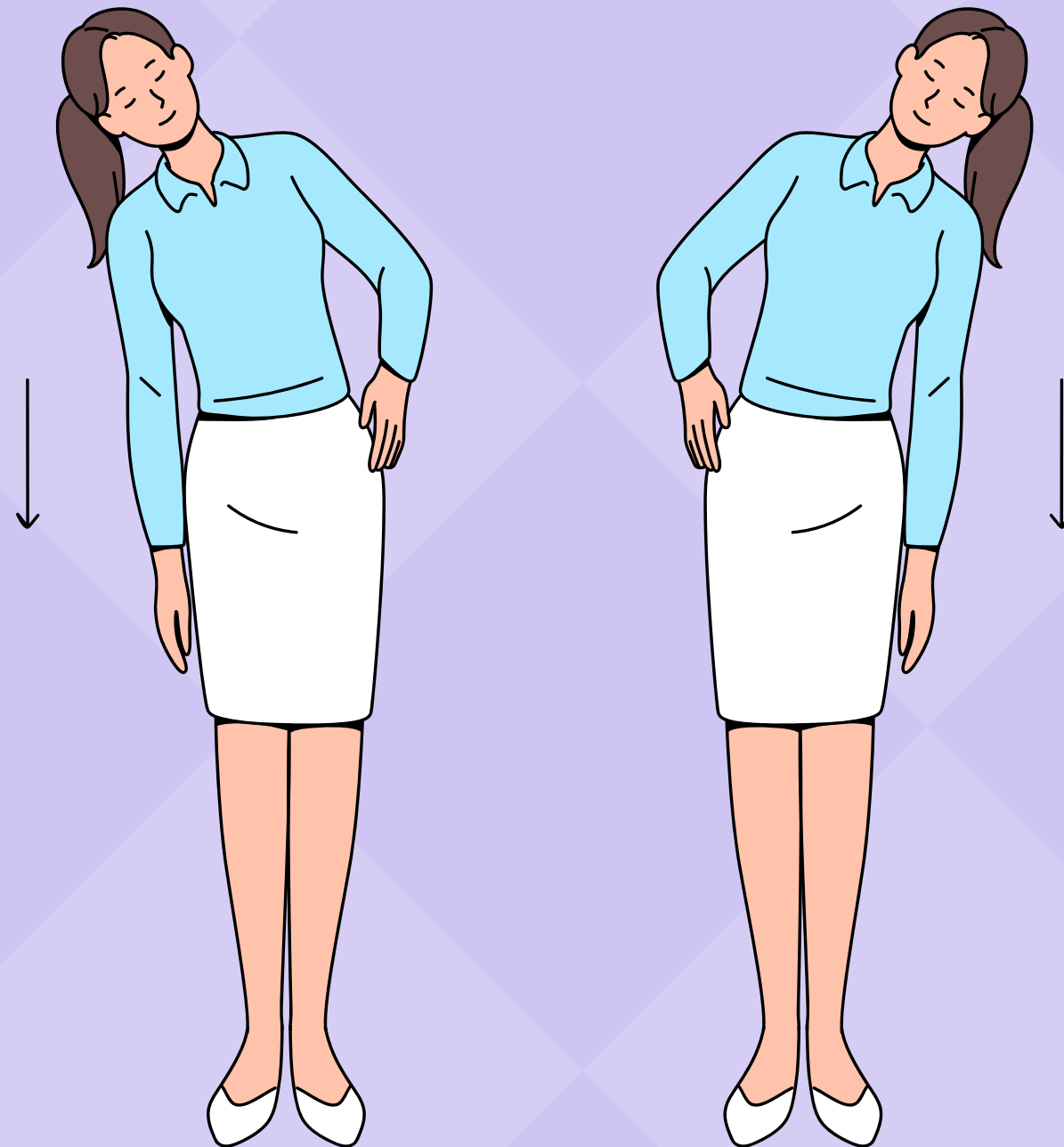
Put your hands flat on your desk, walk your feet out from the desk so that you feel a pull in your sides and chest. Hold for 30 to 60 seconds.



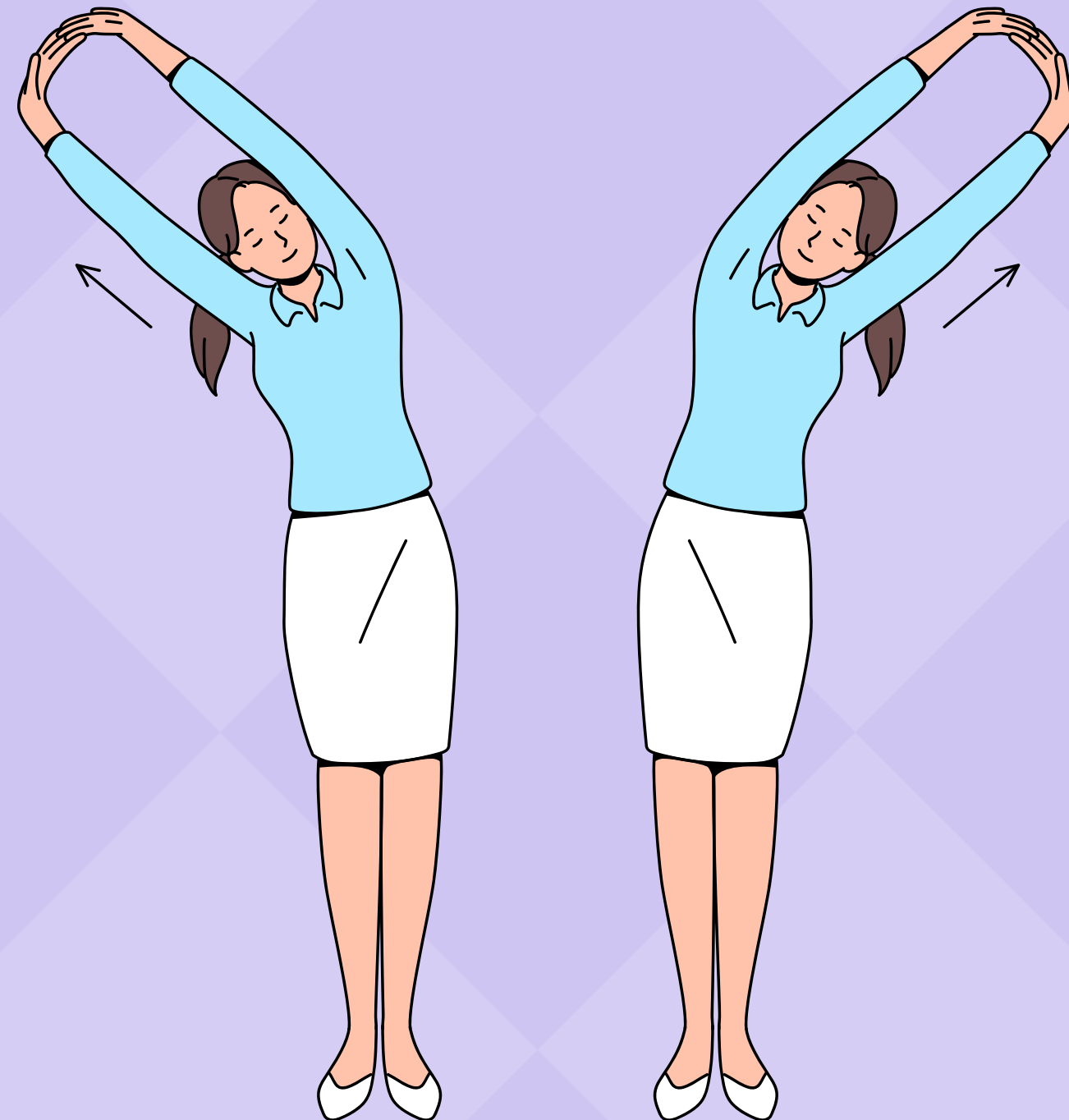
While holding on to something for support, stand on one leg and grab the ankle of the other bringing the foot to the buttocks to stretch the quadriceps muscles. Hold for 30 to 60 seconds.



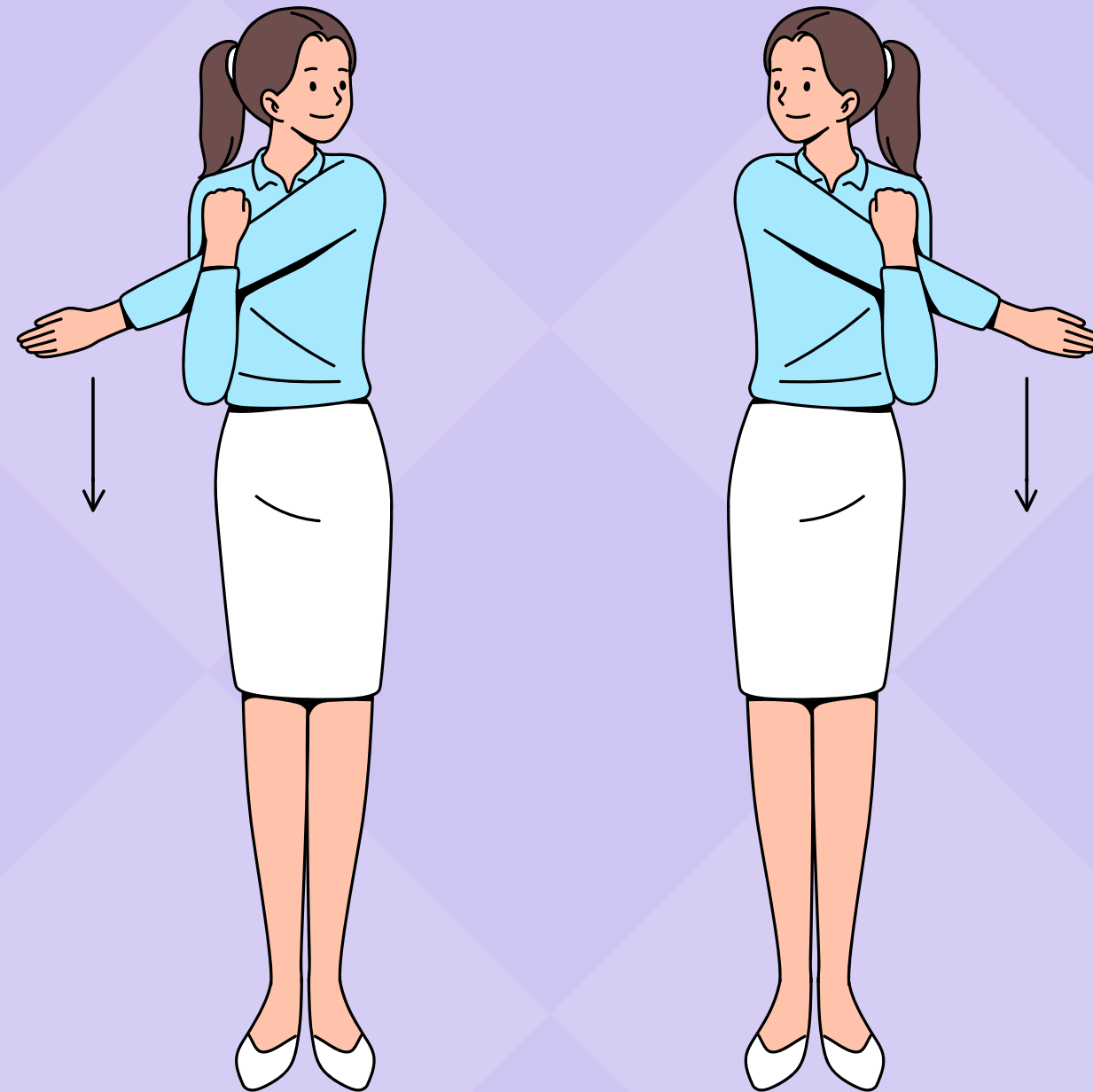
Without bending forward or leaning back, bend down to one side, sliding the hand down the outer thigh. Hold for 30 to 60 seconds.

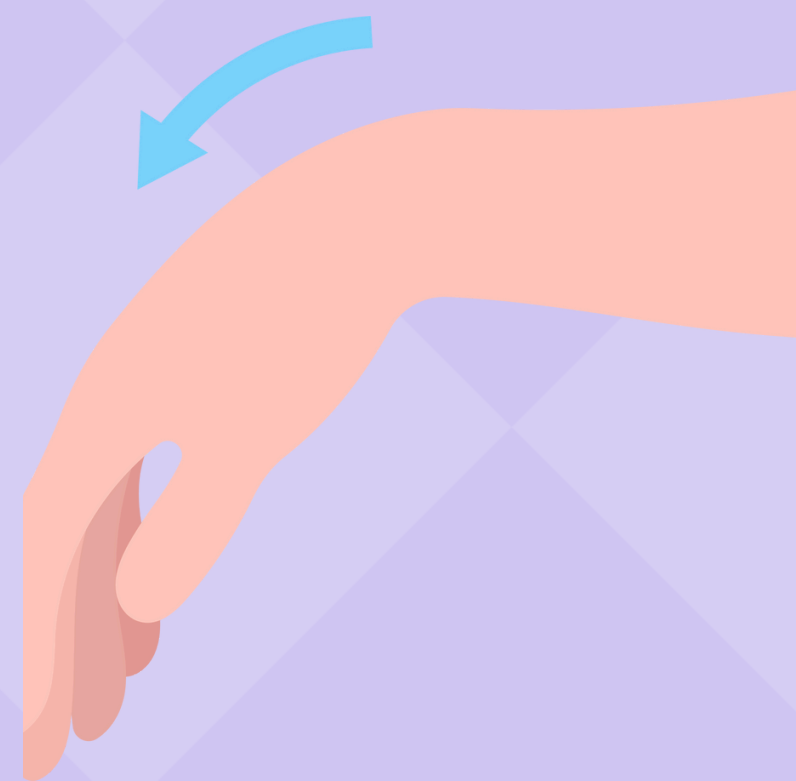


Without bending forward or leaning back, put your arms overhead and bend to the side. Hold for 30 to 60 seconds.



Cross your arm across your chest and with the other arm, pull your arm closer to your chest. Hold for 30 to 60 seconds.





Now you're ready to speak like an Italian! 🇮🇹

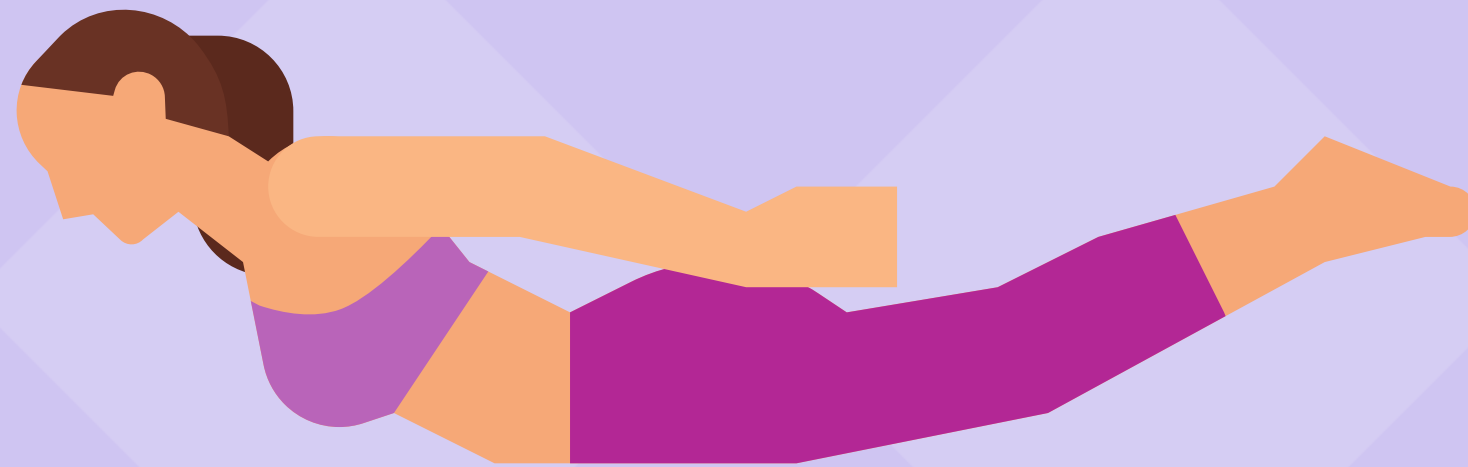


Following is a home exercise routine to correct postural imbalances. Primarily upper and lower cross syndromes. These do not need to be done everyday but they should be done 3 times a week at bare minimum to see results. Better results will be seen if they are done 5–7 days a week until you have made significant progress. Then, with better habits and awareness of posture, you can do them 2–3 times a week to maintain progress.

Ideally, it would be best to do the exercises with a star on them daily. These should take you about 5–10 minutes if you hold the stretches from 30 to 60 seconds each..

Yoga Poses for Postural Imbalances (Upper and Lower Cross Syndromes)

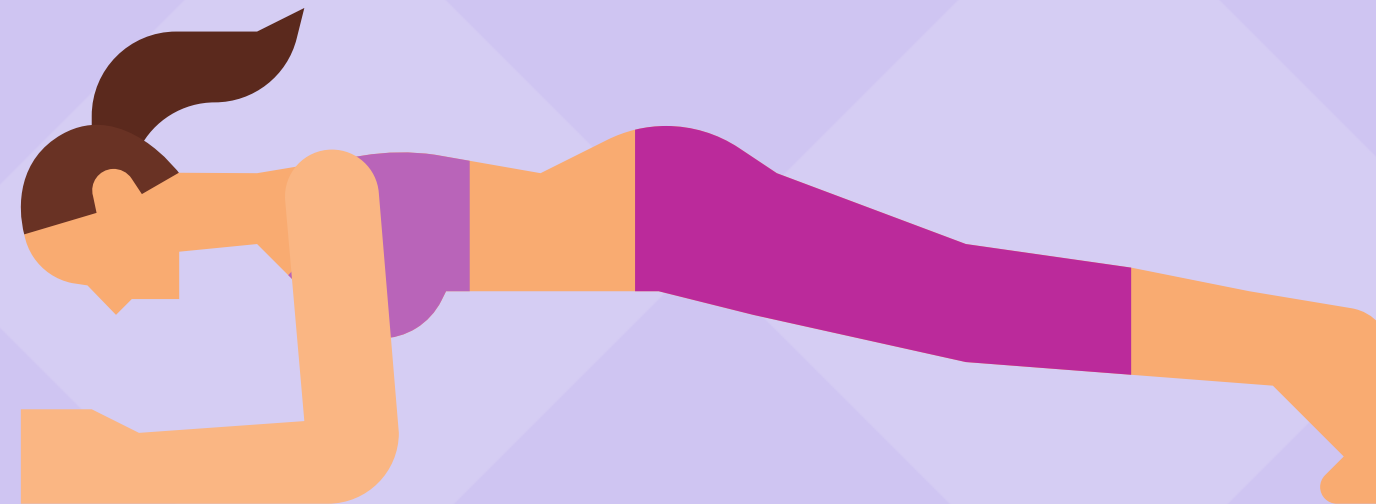
locust pose



Strengthens: glutes, lower back, rhomboids, lower trapezius

Stretches: chest, hip flexors

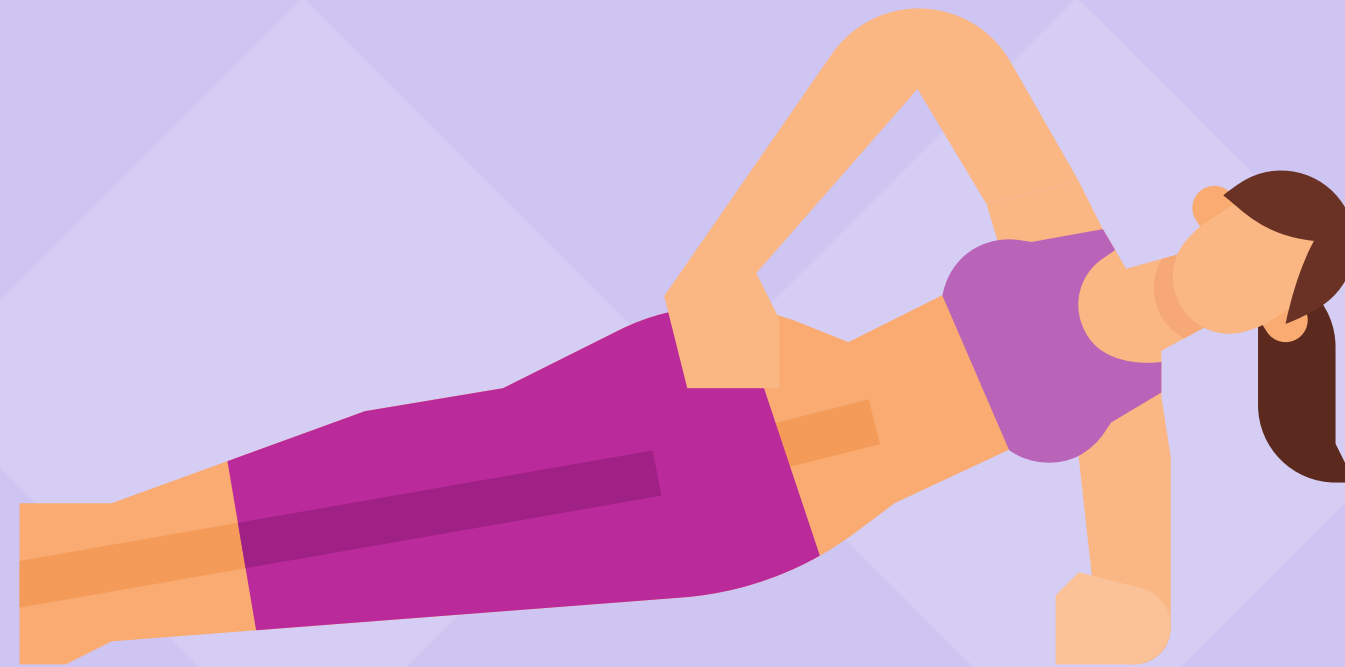
plank pose



Strengthens: abdominals, serratus anterior, deep neck flexors, glutes

Stretches: shoulders (minor), wrists

side plank pose



Strengthens: obliques, transverse abdominis, shoulder stabilizers, glutes

Stretches: lateral torso (minor)



glute bridge pose



Strengthens: gluteus maximus, gluteus medius, hamstrings

Stretches: hip flexors, lumbar erectors

boat pose



Strengthens: abdominals, hip flexors, spinal stabilizers

Stretches: lower back (mild)

chair pose



Strengthens: glutes, abdominals, deep neck flexors, lower trapezius

Stretches: chest, calves

tree pose



Strengthens: glutes, core, lower trapezius

Stretches: inner thighs

warrior 1 pose



Strengthens: glutes, hamstrings, abdominals, lower trapezius

Stretches: hip flexors, chest

warrior 2 pose



Strengthens: glutes, core, lower trapezius, rhomboids

Stretches: inner thighs, adductors, chest

warrior 3 pose



Strengthens: glutes, hamstrings, deep neck flexors, lower trapezius

Stretches: hip flexors, chest



standing forward bend



Strengthens: none significantly

Stretches: hamstrings, erector spinae, calves

standing forward bend with clasped hands



Strengthens: none

Stretches: hamstrings, chest, anterior shoulders

triangle pose



Strengthens: obliques, glutes, lower trapezius, rhomboids

Stretches: hamstrings, inner thigh, chest

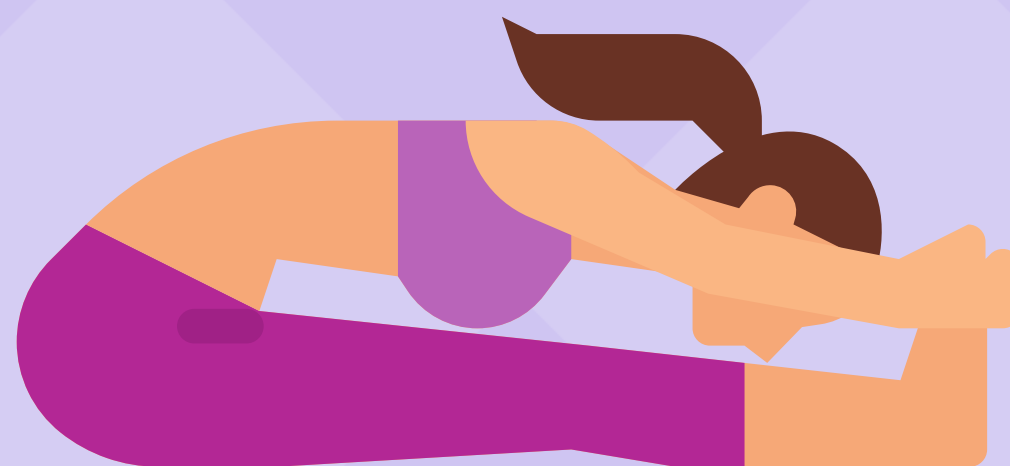
seated pose



Neutral position. May engage core slightly and stretch hamstrings



seated forward bend pose



Strengthens: none

Stretches: hamstrings, spinal extensors

seated spinal twist pose



Strengthens: obliques, spinal stabilizers

Stretches: mid-back, chest, hips



supine spinal twist pose



Strengthens: none

Stretches: glutes, obliques, thoracic spine, and pectoral muscles

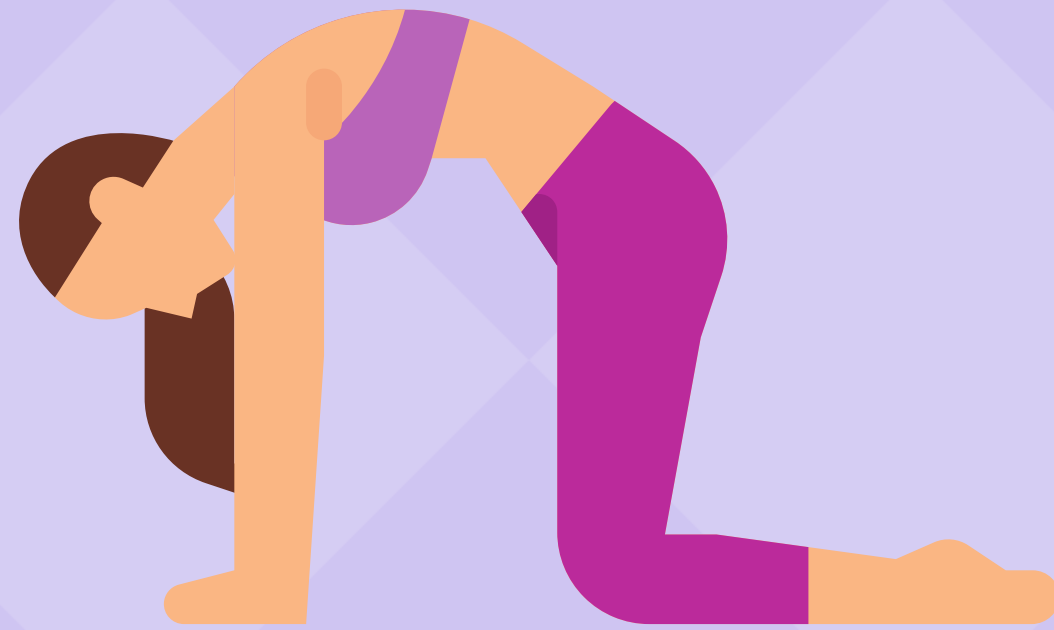
eye of the needle pose



Strengthens: none

Stretches: glutes, piriformis

cat pose



Strengthens: deep neck flexors, abdominals

Stretches: erector spinae, back extensors

cow pose



Strengthens: back extensors, cervical extensors

Stretches: abdominals, chest

thread the needle pose



Strengthens: none

Stretches: rhomboids, posterior shoulder, upper back

low lunge quad stretch pose



Strengthens: glutes

Stretches: hip flexors, quadriceps

pigeon pose



Strengthens: slight glute stabilization
Stretches: glutes, piriformis, hip flexors



butterfly forward bend



Strengthens: none

Stretches: inner thighs, lumbar spine, hip flexors

cobra pose



Strengthens: spinal extensors, rhomboids, lower trapezius

Stretches: abdominals, chest, hip flexors



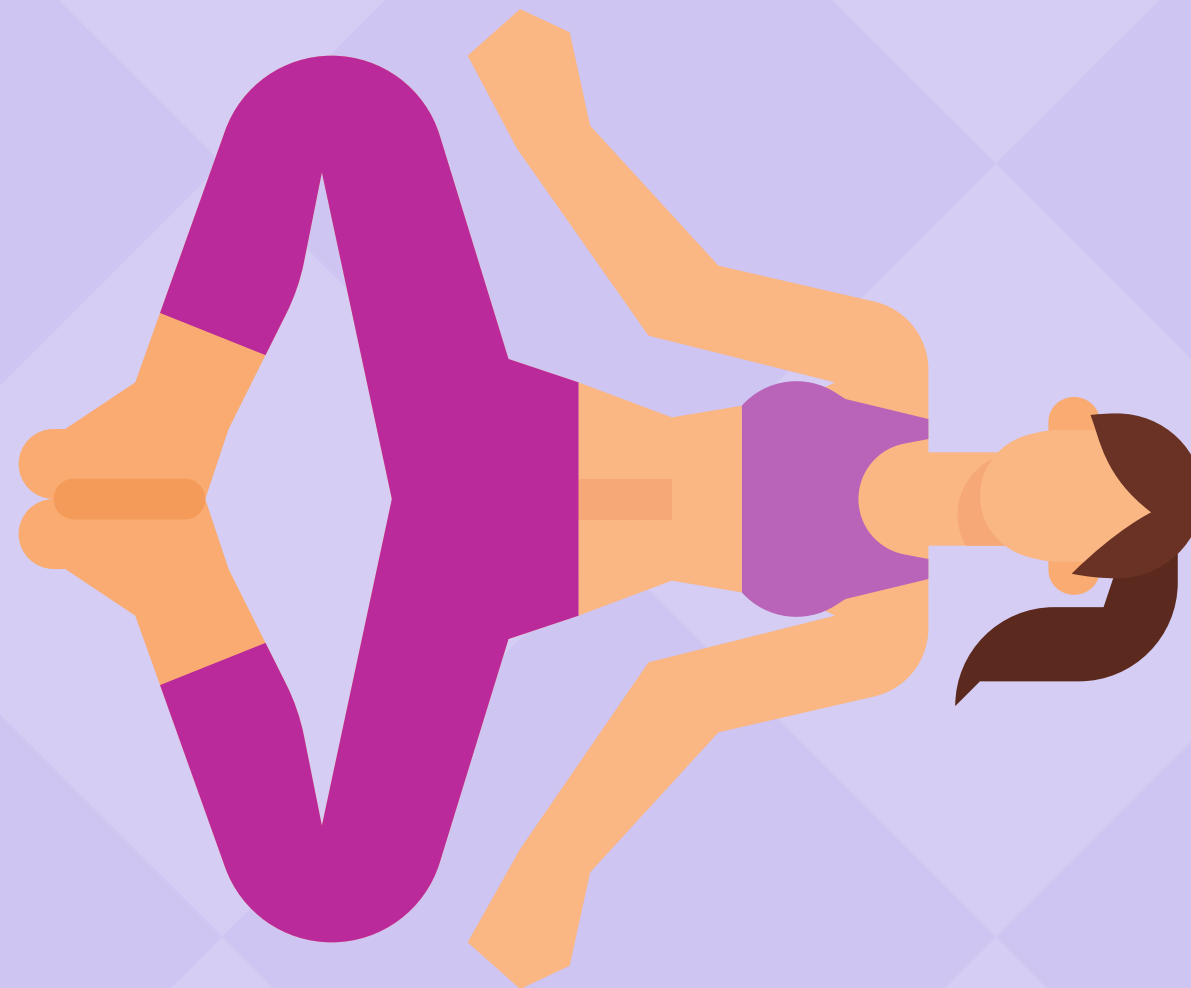
child pose



Strengthens: none

Stretches: low back, hips, knees

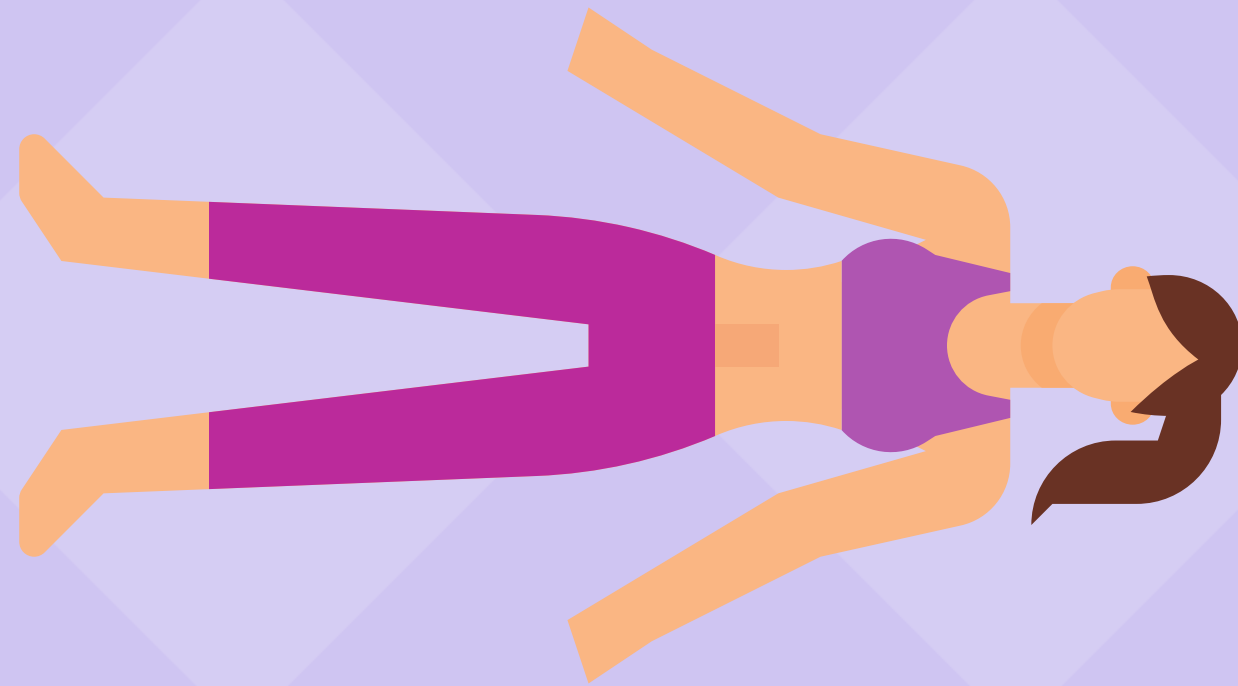
reclining goddess



Strengthens: none

Stretches: inner thighs, groin, chest

corpse pose



Relaxation pose. Passive spinal reset. Can stretch chest muscles if arms are straight out to sides with palms facing up.

LOCUST POSE

Strengthens: glutes, lower back, rhomboids, lower trapezius

Stretches: chest, hip flexors

PLANK POSE

Strengthens: abdominals, serratus anterior, deep neck flexors, glutes

Stretches: shoulders (minor), wrists

SIDE PLANK POSE

Strengthens: obliques, transverse abdominis, shoulder stabilizers, glutes

Stretches: lateral torso (minor)

GLUTE BRIDGE POSE

Strengthens: gluteus maximus, gluteus medius, hamstrings

Stretches: hip flexors, lumbar erectors

BOAT POSE

Strengthens: abdominals, hip flexors, spinal stabilizers

Stretches: lower back (mild)

CHAIR POSE

Strengthens: glutes, abdominals, deep neck flexors, lower trapezius

Stretches: chest, calves

TREE POSE

Strengthens: glutes, core, lower trapezius

Stretches: inner thighs

WARRIOR 1 POSE

Strengthens: glutes, hamstrings, abdominals, lower trapezius

Stretches: hip flexors, chest

WARRIOR 2 POSE

Strengthens: glutes, core, lower trapezius, rhomboids

Stretches: inner thighs, adductors, chest

WARRIOR 3 POSE

Strengthens: glutes, hamstrings, deep neck flexors, lower trapezius

Stretches: hip flexors, chest

STANDING FORWARD BEND

Strengthens: none significantly

Stretches: hamstrings, erector spinae, calves

STANDING FORWARD BEND WITH CLASPED HANDS

Strengthens: none

Stretches: hamstrings, chest, anterior shoulders

TRIANGLE POSE

Strengthens: obliques, glutes, lower trapezius, rhomboids

Stretches: hamstrings, inner thigh, chest

SEATED POSE

Neutral position. May engage core slightly depending on cueing.

SEATED FORWARD BEND

Strengthens: none

Stretches: hamstrings, spinal extensors

SEATED SPINAL TWIST

Strengthens: obliques, spinal stabilizers

Stretches: mid-back, chest, hips

SUPINE SPINAL TWIST

Strengthens: none

Stretches: glutes, obliques, thoracic spine

EYE OF THE NEEDLE POSE

Strengthens: none

Stretches: glutes, piriformis

CAT POSE

Strengthens: deep neck flexors, abdominals

Stretches: erector spinae, back extensors

COW POSE

Strengthens: back extensors, cervical extensors

Stretches: abdominals, chest

THREAD THE NEEDLE POSE

Strengthens: none

Stretches: rhomboids, posterior shoulder, upper back

LOW LUNGE QUAD STRETCH

Strengthens: glutes

Stretches: hip flexors, quadriceps

PIGEON POSE

Strengthens: slight glute stabilization

Stretches: glutes, piriformis, hip flexors

BUTTERFLY FORWARD BEND

Strengthens: none

Stretches: inner thighs, lumbar spine, hip flexors

COBRA POSE

Strengthens: spinal extensors, rhomboids, lower trapezius

Stretches: abdominals, chest, hip flexors

CHILD POSE

Strengthens: none

Stretches: low back, hips, knees

RECLINING GODDESS

Strengthens: none

Stretches: inner thighs, groin, chest

CORPSE POSE

Relaxation pose. Passive spinal reset.

Proprioception Exercises

**Standing on one leg
for one minute each**



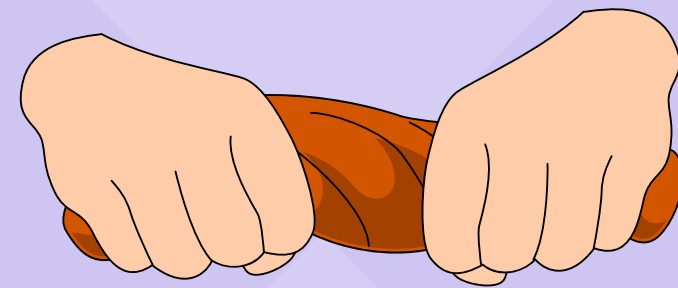
**Practice balancing
on a stability ball**



**Practice balancing
on a wobble board**



Do spinal twist exercises to release tension between the shoulder blades and mid back. Twisting your upper and lower body in opposite directions like wringing a towel. Please click the link below to see my YouTube page example of an exercise I named the “bow and arrow”.



YouTube Link

standing or seated spinal twist



more challenging when seated because the hips are stabilized

Benefits of Wall Angels—A ‘Superfood’ Exercise.

Wall angels are a simple but powerful postural exercise. You stand with your back against a wall and slowly slide your arms up and down — like making a snow angel. This movement works on the areas most affected by Upper Cross Syndrome (rounded shoulders, tight chest, forward head posture).

Why wall angels help Upper Cross Syndrome:

Upper Cross Syndrome happens when some muscles (neck and chest) become tight and short, while other muscles (mid-back and neck flexors) become weak and long. Wall angels gently stretch the tight muscles while strengthening the weak ones. Doing them every day can reduce forward head posture and rounded shoulders, making it easier to stand and sit up straight — and feel better overall.

Opens the chest — Moving your arms up and down with your back against the wall gently stretches the chest muscles that pull the shoulders forward.

Strengthens the upper back — Wall angels activate the mid-back muscles (rhomboids, middle and lower traps), which are often too weak in Upper Cross Syndrome.

Improves shoulder mobility — The slow overhead motion encourages proper shoulder blade movement and can reduce stiffness.

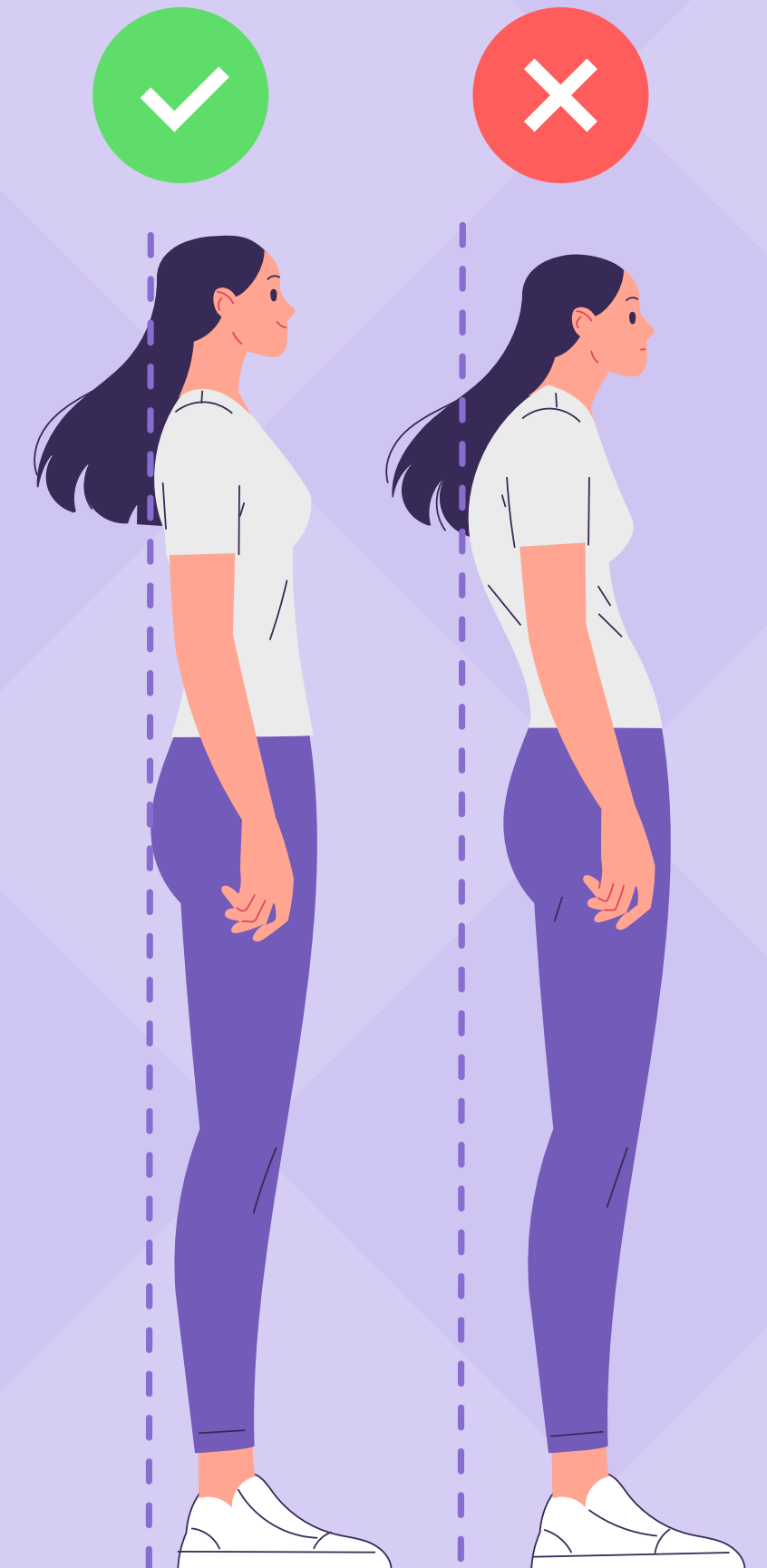
Aligns the spine and neck — Keeping your back and head against the wall trains your body to hold a more upright posture and improves head alignment.

Builds muscle memory — Practicing wall angels regularly helps your brain and body remember better posture, even when you're not exercising.

How to Do Wall Angels:

- Stand with your back flat against a wall.
- Place your feet a few inches away from the wall, knees slightly bent.
- Press your lower back, shoulders, and the back of your head gently into the wall.
- Raise your arms to shoulder height with elbows bent at 90 degrees and the backs of your hands against the wall.
- Slowly slide your arms up the wall as high as you can without losing contact with the wall.
- Then slide them back down to shoulder height.
- Keep the movement slow and controlled, and focus on keeping your back, shoulders, and head against the wall.
- Do 2–3 sets of 8–10 reps each day.
- As you improve, you can do them twice a day — once in the morning and once in the evening — to help reset your posture.

YouTube Link



Wall Angels Exercise

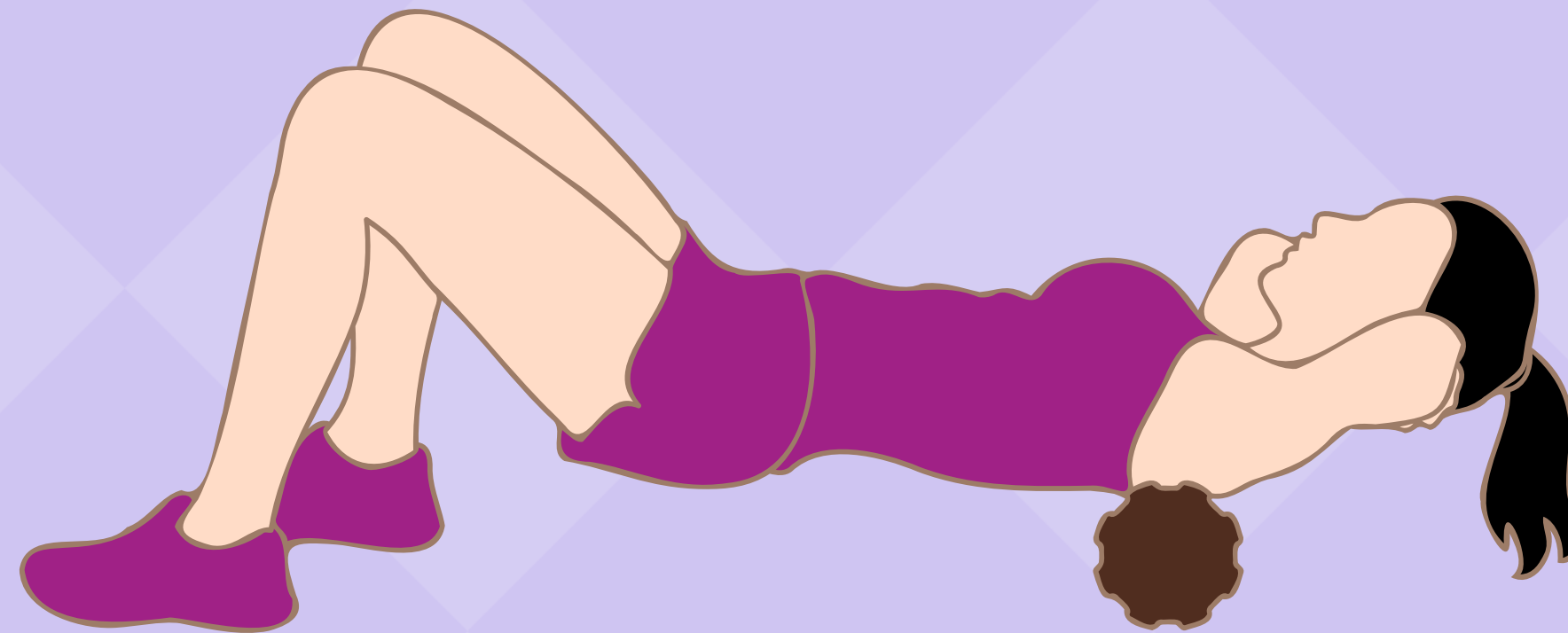


Chin Tuck Exercises

Sit or stand up straight with your shoulders relaxed. Look straight ahead. Gently draw your chin straight back, as if you're trying to give yourself a double chin. Keep your eyes level — don't tilt your head up or down. Hold for 3–5 seconds. Relax and return to the starting position. Repeat 10–12 times per set. Do 2–3 sets each day.

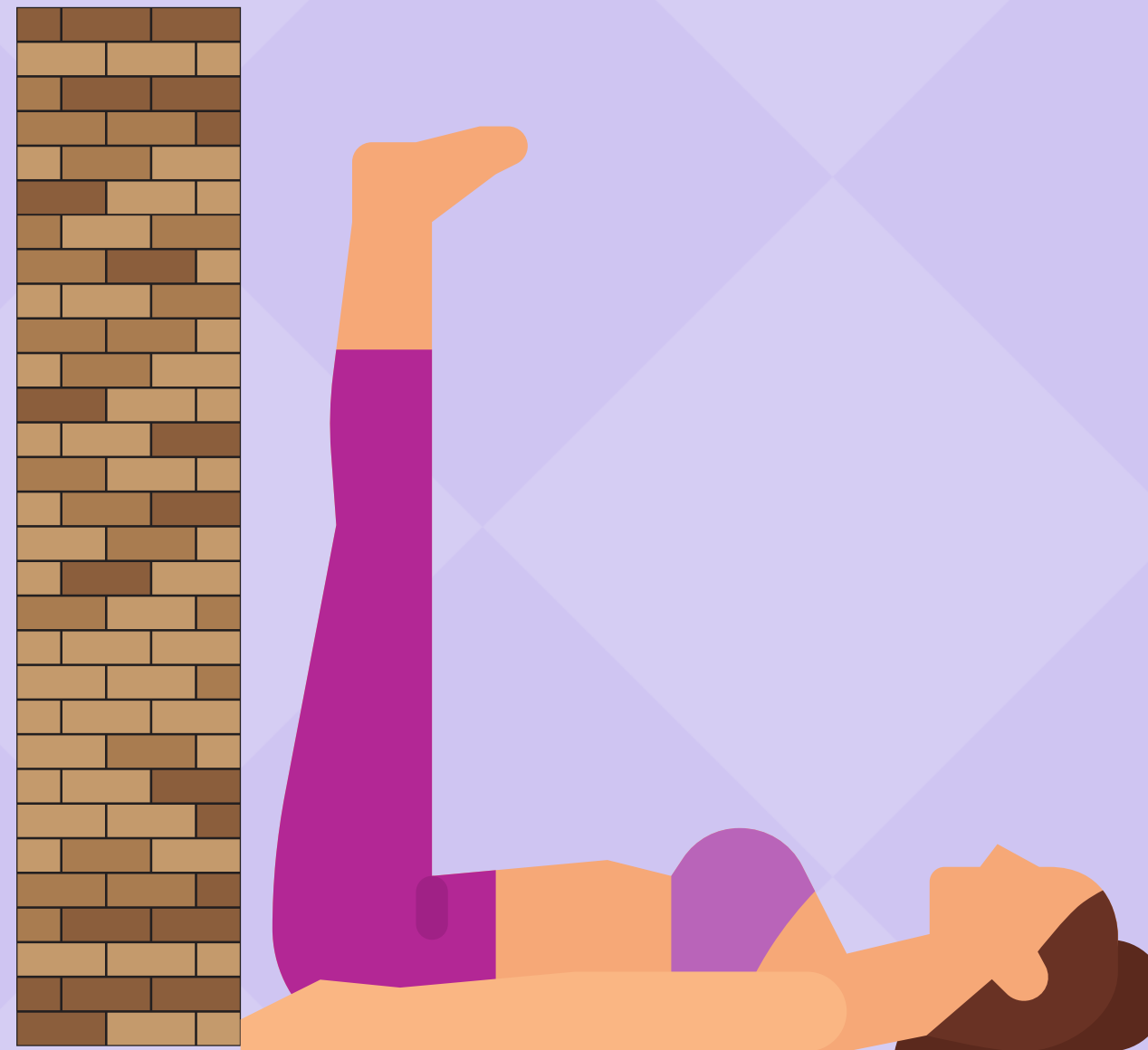


foam rolling (midback only)



it's normal to hear clicks in your spine when doing this—just avoid the neck/low back

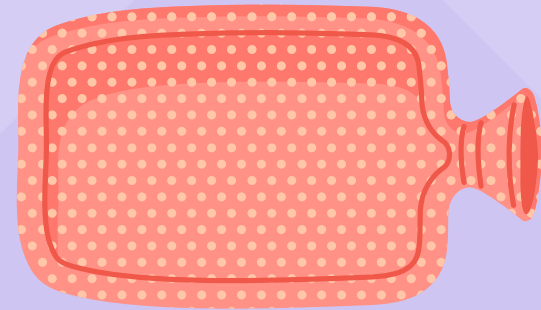
hamstring stretches up a wall



this is a passive stretch which allows you to get a deeper stretch

Tips for Managing Pain at Home

a hot water bottle



a hot bath



an ice pack



extra rest



acupuncture



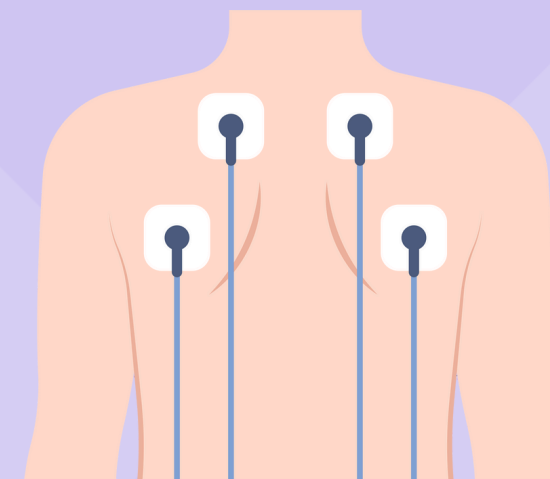
a massage



a chiropractic visit



electric muscle stimulation



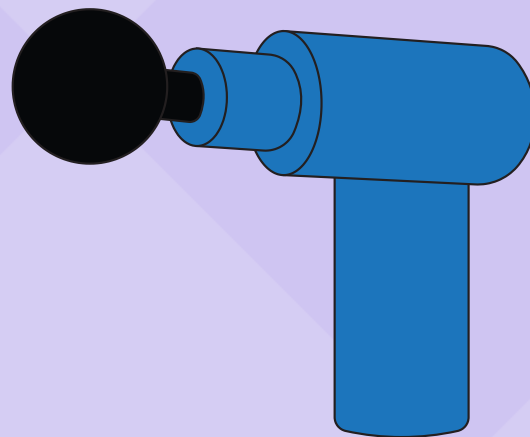
stretching muscles



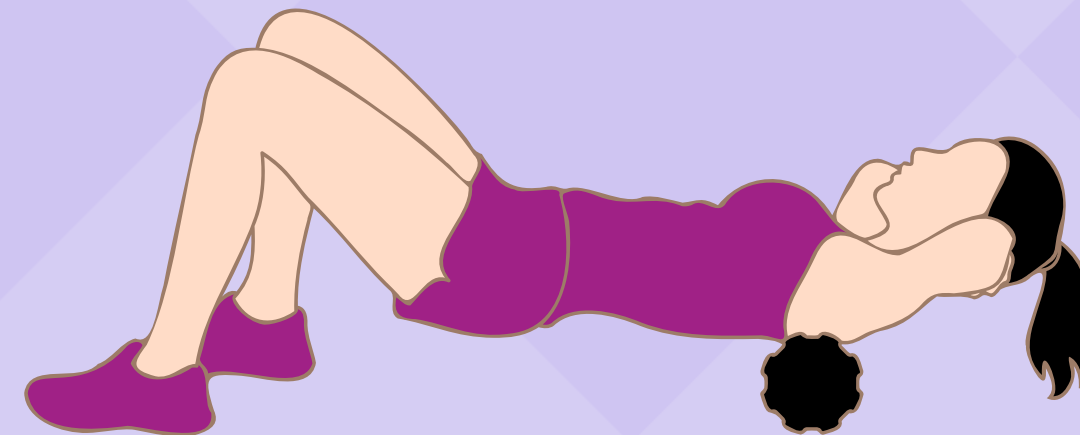
strengthening muscles



percussion massage

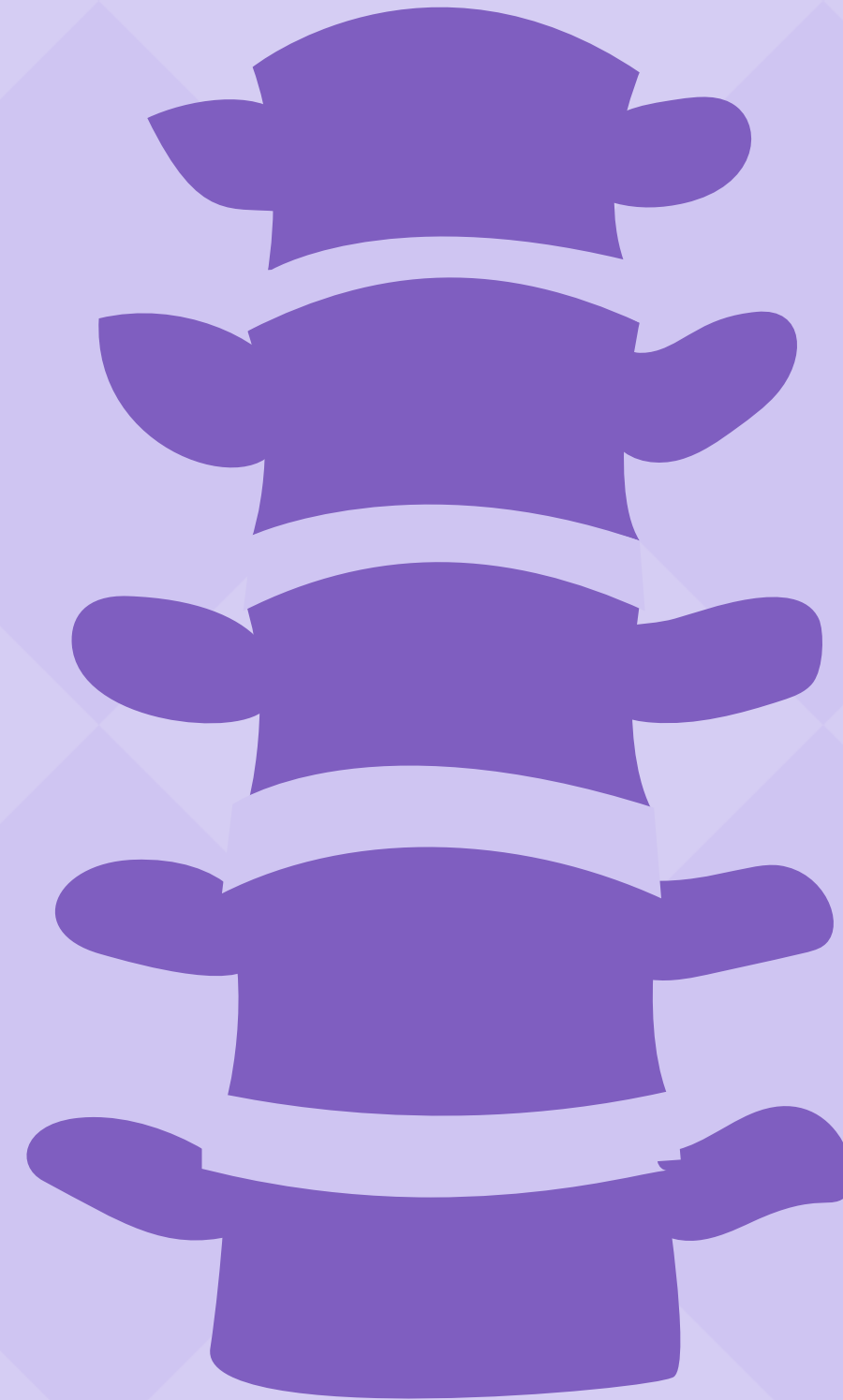


foam rolling



And sometimes you may need to see your medical doctor and/or take some pain medication if it is not resolving.





KEEP
THE
SPINE
IN
LINE

**"Good posture isn't something you have
or don't have—it's something you choose
and practice daily."**

—Deborah Ben-Shah, DC

Takeaway Tips

- Practice walking with a book on your head to reset posture and proprioception.**
- Put things you frequently use on higher shelves in the cupboards so that you have to reach up and move your shoulders in a greater range of motion.**
- Avoid using posture braces because they eventually weaken your muscles and do more harm than good.**
- Bring your phone to your face not your face to your phone.**
 - Get up and move every 30 to 60 minutes.**
- When you sit in the chair, put your butt all the way to the back and lean back so that your mid back and your bottom are both touching the back of the chair.**
- Remember to bring your shoulders back and down throughout the day.**
 - Keep your chin tucked to reduce forward head carriage.**
- When you walk, if you feel like you are leaning backwards or looking down you are probably walking correctly.**
 - Use a cushion to support your lumbar curve while seated at your desk.**

Thank you for joining me for my presentation today.

If you're interested in purchasing a copy of this presentation scan the QR code to be taken to it.



Dr Deborah Ben-Shah, DC



drdeborahbenshah.com