



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

Directed muscle contractions are one of the most effective & efficient strategies for creating tissue adaptation, joint health & function, increased mobility, and increased neurological control. They can easily be integrated into a yoga practice to boost its positive effects on the body.

Directed muscle contractions are generally targeted isometric contractions performed in specific joint configurations, shapes, poses, or yoga asanas. The suggestions listed here are by no means exhaustive, but they can give you an idea of some general strategies to use for specific goals.

General Guidelines for Using Directed Muscle Contractions

Start with a traditional passive stretch. Identify on which side of the joint in question the tissues are lengthened and on which side the tissues are shortened.

Then do either or both of the following:

1) Contract the muscles on the *lengthening* side of the joint for anywhere from about 5-15 seconds for a total of 1-3 times (pausing to rest in between each contraction). You can contract at any level of intensity (i.e. 10%, 20%, 80%, etc.) - but just know that the higher the intensity, the more tissue adaptation will be incited.

2) Contract the muscles on the *shortening* side of the joint, using the same parameters mentioned for the lengthening side as far as intensity & length of time.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Shoulder Flexion (Arms Overhead):

Half Dolphin w/blocks - From hands & knees, place your forearms on two blocks. Bend your elbows, bring your palms together, let your head hang between your arms (in between the two blocks), and bring your thumbs to the base of your neck. This is a passive stretch that lengthens the tissues of the back of the shoulders.



To contract the lengthening tissues: Push your elbows down into the blocks, contracting the muscles being stretched.

To contract the shortening tissues: Back out of your full edge of the stretch a bit (because we have less force generation available to us at end range), and then lift one elbow off the block and hold, hovering it off the block. Release, and repeat with the other arm.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Shoulder Extension (Arms Back Behind You):

Prone with a block under the hand: Lie on your belly with one arm by your side, elbow straight, and place a block underneath that hand. Place the block at a height that you feel the start of a stretch in the front of your shoulder. This is a passive stretch that lengthens the tissues of the front of the shoulders.



To contract the lengthening tissues: Firm your entire arm and push that hand down into the block, contracting the muscles being stretched.

To contract the shortening tissues: Firm your entire arm and lift that hand off the block, hovering it in mid-air.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Hip Flexion (Knee Toward Chest):

Half Happy Baby: Lie on your back and bring one leg into half happy baby. The other leg can either be straight on the floor (as pictured), or that knee can be bent with that foot on the floor. Hold the happy baby leg in a way that allows you to maintain a relatively neutral spine. So if you are less flexible, either hold a strap around the foot or interlace your fingers behind the thigh. If you are more flexible, grab the sole of the foot with your hand, as shown in the photo. This is a passive stretch that lengthens the tissues at the back of the hip.



To contract the lengthening tissues: Push your foot up into your hand or the strap, or push your thigh into your hands (if you're holding the thigh).

To contract the shortening tissues: Pull your leg away from your hand/the strap by pulling the knee straight down toward the floor. Ideally the arm holds still and the foot moves toward the floor, away from it.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Hip Flexion With a *Straight Leg* (more hamstring-targeted than hip joint-targeted)

Ardha Hanumanasana (Half Split): From hands & knees, step one foot forward between your hands. Move that knee toward straight, but maintain at least a slight bend in the knee. Keep your pelvis vertically stacked over your back knee, and place hands on blocks if the floor feels far away.



To contract the lengthening tissues: Isometrically push your front heel down into the floor and drag it back toward you.

To contract the shortening tissues: Firm your entire front leg and lift the heel up off the floor, hovering it in mid-air.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Ankle Dorsiflexion (Top of Foot Moving Toward Shin)

Malasana: Come into malasana (yoga's squat position). If your ankles are less flexible, prop your heels up with a rolled-up blanket, or up on a bolster. And rather than automatically turning your feet out, see if your feet can move more toward "straight-ish" if you use a blanket under the heels. (Straighter feet are more ideal here - but don't force it if you feel it in your knees at all.)



To contract the lengthening tissues: Isometrically push the balls of your feet down into the floor - like you are trying to "gas pedal" your feet.

To contract the shortening tissues: Lift the tops of your feet toward your shins, working active dorsiflexion (you will likely feel this in the fronts of your shins after a little while!)



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Spinal Rotation (Twisting)

Marichyasana C (seated spinal twist): Come into a seat with one leg straight forward and the other knee bent with that foot on the floor. Rotate your rib cage in the direction of the bent knee (so if the right knee is bent, rotate toward the right.) Either give the right leg a "hug" with your left arm, or hook your left elbow just outside the right knee (as pictured). Add any props underneath your hips necessary in order to maintain a relatively neutral pelvis.



To contract the lengthening tissues: Firm your arm into your leg to prevent you from actually moving, and then attempt to "un-rotate" your rib cage away from the bent knee - rotating back toward the left if the right knee is bent.

To contract the shortening tissues: Rotate your rib cage further into the twist toward the knee. (If the right knee is bent, rotate *more* toward the right - squeezing more range out of the twist.)



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Hip External Rotation

Pinwheel or 90/90 Legs: From a cross-legged seat, internally rotate the hip of one leg so that leg faces behind you with that knee bent. Have both knees bent 90 degrees, and the shin of your front leg parallel to the front edge of your mat with the shin of your back leg parallel to the side edge of your mat. If you feel significantly tilted to one side, place a prop under the hip of the front leg so that you feel more even. For external rotation, we'll be targeting the front leg in this position.



To contract the lengthening tissues: Facing your torso toward the front leg, firm the the entire front leg and push it straight down into the floor.

To contract the shortening tissues: Without leaning your torso back at all, firm the entire front leg and attempt to lift it up off the floor, hovering it in mid-air if you are able to lift it. (Think of leading with the foot as you lift, and placing the knee down first as you set the leg back down.)



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Hip Internal Rotation

Pinwheel or 90/90 Legs: From a cross-legged seat, internally rotate the hip of one leg so that leg faces behind you with that knee bent. Have both knees bent 90 degrees, and the shin of your front leg parallel to the front edge of your mat with the shin of your back leg parallel to the side edge of your mat. If you feel any discomfort or "pinching" in your back leg hip, try placing a prop under the hip of the front leg hip and/or reducing the angle of the back knee. (If you try those tips and still feel discomfort or pinching in the back leg hip, skip this exercise and see a professional movement specialist who can help resolve any issue in the hip first.)



To contract the lengthening tissues: Turn your chest toward the back leg (use your hands behind you if you need support in staying upright.) Push the back leg down into the floor.

To contract the shortening tissues: Try to lift the back leg off the floor. To target internal rotation even more specifically, try lifting the foot first as you lift the leg and placing the foot down last as you set the leg down.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Thoracic Extension (Upper & Mid-Back Backbend)

Low Cobra: Lie on your belly and place your hands on either side of your rib cage with your wrists lined up about under your elbows. (Your hands will be back further than they usually are in a regular cobra pose.) Lift your head and chest up off the floor - you can use your hands a bit to help you lift up for this variation.



To contract the lengthening tissues: We can't target the lengthening tissues effectively in low cobra. :(

To contract the shortening tissues: Use your hands to lift your chest just a touch higher than it is in low cobra (to push your range), and then freeze your chest at that height as you lift your hands up off the floor. Hold in this isometric contraction of the shortened tissues in thoracic extension for about 5-15 seconds, and then return your hands to the floor and lower your head and chest back to the floor.



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

To Improve Wrist Extension (Back of Hand Toward Forearm)

Hands & Knees/Table Pose: Come into a hands & knees position with your shoulders over your wrists - but if you feel any wrist discomfort at this 90 degree angle of wrist extension, then walk your hands forward a bit to reduce the degree of wrist extension until your wrists feel fine.



To contract the lengthening tissues: Attempt to actively work wrist flexion by pushing your hands into the floor - think of pushing from the base knuckles of your fingers rather than from your fingertips.

To contract the shortening tissues: Attempt to actively work wrist extension by lifting the backs of your hands toward the fronts of your forearms (you may find that you have more force generation available here if you move your shoulders back a few inches, backing out of the wrist extension stretch a bit before you start.)



Keeping Your Yoga Teaching Current

Quick Guide to Directed Muscle Contractions in Yoga

These examples demonstrate how to apply the principle of using isometric contractions to create strength and control from multiple angles in a particular joint position. Use these ideas and apply them to any joint position in any yoga pose (or non-yoga pose) that you like!

And if you haven't watched the **Teacher's Toolbox Yoga Class** in this *Keeping Your Yoga Teaching Current* course that is focused on directed muscle contractions, make sure that you watch that for a fuller understanding of this work.

Also feel encouraged to explore the yoga classes in Jenni's **online class library** for more great directed contraction ideas. **Andreo Spina** and his **Functional Range Conditioning** system is another great resource for ideas and tips on how to incorporate this work. Visit his website and/or follow him on social media. Your students' bodies will thank you!