

Symmetry



Regenexx

Patients are often surprised to find out that their body is no longer symmetrical. Others have noticed that a certain area has been getting tight for years. Either way, going through an intensive 5 minute test of all major body joints checking for symmetry is well worth your time. Why? Joints that are not equal in their side to side or front to back motion don't wear evenly. If you have any areas that are tight and not symmetrical and you don't figure out what's going on and/or fix these, you can bet that arthritis is in your future if it's not already knocking at the door.

This is an 11 step test. You need to focus on whether you can attain the movement to the degree asked, whether the right and left are identical or different, whether the front/back is the same or different, and whether the lettered areas are differently tight on one side or the other. In addition, pay attention to which movements cause pain and where. If any movement causes significant pain, stop immediately and see a doctor. If you think any of these motions may injure you, don't do this test and instead see a physician.



Step 1: Protracted Shoulder Check-Stand normally and place your hands together while you raise them over your head as shown. Move the hands as far back as they will go. Pay attention to whether the shoulders go back equally (you may want to have someone check or do this in a mirror). Also pay attention to whether the front of the shoulders at points A and B are equally tight. You can also do this same maneuver lying flat on your back on a firm surface. In that case your hands should touch the floor. If they don't, then both sides of your check are too tight. This step checks your ability to abduct the shoulder and also checks the tightness in the pectoralis major and minor muscles along with the front and bottom of the shoulder capsule. If this causes shoulder pain, you may have a shoulder are getting pinched by poor movement patterns.

Step 2: Posterior Shoulder Check-Stand normally and place one hand behind your back and raise it up as high as it will go. Both hands should be able to go at least to the middle of your upper back, with the thumb just below the shoulder blades. Notice whether both sides can go equally as high and whether you have tightness in the back of the shoulder at points A and B. Is one side tighter than the other? This movement measures the tightness in the infraspinatus muscle as well as the back of the shoulder capsule. Patients that can't do this tend to develop overload on the back of the shoulder joint where they can develop labral tears. While many surgeons would just focus on the labral tear, the real focus should be on why this shoulder can't internally rotate!



Step 3-Neck Check-Very slowly and carefully roll your neck 360 degrees (only 180 is shown). Does this causes any pain at any point? Does it roll equally well to the front, side, and back? Is one side tighter than the other? Patients who don't do well with going back or back and to the sides may have an arthritic or injured facet joint in the *neck or a problem with lordosis* (discussed later in this chapter). If bending or to the side forward is tough, you may have tightness in the postural muscles of the neck that hold the head up like levator scapula, upper trapezius, or the cervical extensors. Finally, if one of the front muscles is tight, it could be sternocleidomastoid, and important muscles





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that helps to turn the head.





Step 4: Cervical and Thoracic Rotation Check-While standing, place your hands on your chest and turn your head all the way over your shoulder as far as it will go. Then follow through with a rotation of your upper back as far as it will go with your feet firmly planted (they shouldn't move). Do this on both sides. Can you turn as far with your neck and your upper back on the left as on the right? Is there any more tightness on one side of the body in the neck, upper back, or lower back on one side than the other? Patients who can't turn their necks may have a problem with the facet joints whereas patients who can't turn their upper back may have that issue or a problem with normal motion of the rib cage.

Step 5-Hip Rotation Check-Stand normally and place the toes of your feet together as shown. Make sure your feet are aligned and symmetrical, as it's easy to cheat by placing one foot forward or back. Note whether both feet move inward equally (the motion is mostly coming from your hips). Also note the A and B points listed in the front and back of the hips. Are these areas equally tight? Is one tighter than the other? Also note the C and D points-does any of this stress or hurt your knees or one knee? Now take your toes and rotate them out all the way. Again, be careful to make sure your feet are symmetrical (heels are together) as otherwise it's cheating. If one hip has a very different range of motion (toes don't move as far in or out and this seems to be due to tightness in the hip, this is very concerning. The hips tend to lose range of motion quickly and almost always after the onset of moderate or severe arthritis. I would advise you get your hip checked immediately by your physician. If you already know you have a hip problem, this means that you have serious work to do. Unlike other joints, the hip has a very limited weight bearing area (the part of the joint where you spend the most time). When the hip loses range of motion when arthritis is already present, the joint will put much more pressure on already worn areas, hastening their cartilage loss. Getting hip range of motion back can be a challenge, but we've seen some patients get relief with aggressive Rolfing (see the end of the next chapter on Neuromuscular).









Step 6: Lateral Hip and Back Check: Stand normally and reach to the side as shown. Go as far as you can and note the points A and B. Can you go as far on the right as you could on the left? Does one side of the lower back and/or outside hip feel tighter (point A or B)? Does that tightness extend down the side of the leg to the knee (points C and D)? This step measures the tightness in the opposite lateral lower and upper back muscles like the quadratus lumborum and iliocostalis lumborum. It also measures the tightness of the opposite lateral hip muscles like the tensor fascia latae and iliotibial band. In addition, if you have same sided pain in the back or hip, you may have an arthritic or injured low back facet or SI joint.



Step 7-Gluteal, Lumbar, and Thoracic Extensor Check-Bend

forward all the way and try and touch your toes. Do you get pain or severe tightness in one or both hamstrings (point A)? Is one side of your buttocks tighter than the other (point B)? Is your lower or upper back tight (points C and D)? Can you get within 6 inches of the floor? Does this cause pain or perhaps tightness, numbness, or tingling in one or both legs? Is your belly in the way? Patients who have difficulty getting close to the floor have significant tightness in hip flexion (which could be arthritis) or lower/upper back flexion (which could be disc disease or extensor muscle tightness). If one hamstring is always tight despite your best efforts to stretch it, then believe it or not, it could be an irritated S1 nerve in your back despite the fact that your back *doesn't hurt that much. Irritated nerves in your back can also cause one or both legs to get tingly in this position.*



Step 8-Hip Flexor, Ankle Dorsiflexion, and Forefoot Check-Perform a lunge as shown, getting as far down as you can, making sure you feel a good stretch in the front of the hip on the side the leg is back. On that leg, bend your toes so that they meet the floor flat. On the other leg, flex the ankle as much as possible. For some people, getting a good stretch may involve placing the hands all the way down to the floor. Notice the front of the ankle of the forward leg and compare that to the other side when you perform the opposite stretch (point A). Does the butt on the front leg have the same side to side tightness? On the back leg, can you flex your toes

(point B) or is this restricted on one side or painful? On the same leg, is the front of the hip (point D) equally tight on both sides or is one side tighter? Can you get as low on each side? Patients who have difficulty at point A (front of the ankle) may have ankle arthritis or a bone spur in the front of the tibio-talar joint restricting dorsiflexion of the ankle. Patients with problems at B (toes) may have arthritis at the MTP toe joints in the foot. For the big and 2^{nd} toe, believe it or not, this can sometimes be related to long standing low back problems (even though you think your back is fine). Patients with problems at C (buttocks) may have problems with hip flexion, indicating tight gluteal muscles or arthritis in the hip. Pain with this maneuver could mean a labrum tear in the front of the hip. Finally, if you have an issue at D (front of the hip), this could indicate a tight psoas muscle. This muscle goes from the front of the lumbar spine to the hip, so tightness here can be due to chronic low back issues or trigger points in this muscle. Sometimes patients with psoas issues have trouble getting in and out of a low car.





Step 9-Knee Extensor Mechanism Check-Stand normally and grab one foot with the same hand while bending the knee bend you as shown. You may need to hold onto something. That's actually your first observation, as if you can't easily balance like this (after a practice run), then you have significant low back and hip stability problems on the opposite side of the knee bend (see stability chapter). For the symmetry check, do the right and left knees bend equally. To really check this, make sure you stand straight while checking both sides. Does point A (quadriceps) feel the same on each side? How about the front of the hip (point B). Does either knee hurt in this position? If you have less knee bending on either side, the simplest explanation is that you have trigger points in the quadriceps muscle (see next chapter). If the front of the hip is tight, you may have issues with the rectus femoris muscle. If the knee hurts, you may have a patella-femoral problem (an issue with the knee cap in its groove). Another common cause of asymmetry here is swelling in the knee joint due to chronic arthritis, which reduces the ability of the knee to flex.

Step 10-Adductor, Sartorius, and Gracilis Check-Lie on the floor and place one ankle over the opposite knee as shown. Next, try to get the bent knee as low to the floor as possible. Check both sides and see if they are equal in your ability to get the ankle high up on the opposite knee. See if point A (inside of the thigh) feels the same degree of tightness side to side? Can you get one bent knee farther toward the floor than the other? Tightness in these muscles of the inside of the thigh is common in patients with chronic low back conditions and sometimes can cause hip or inside of knee pain. In addition, patients with hip arthritis may notice a side to side difference in flexibility.



Step 11-Lumbar and Thoracic Extension Check-Lie face down and prop up on your elbows, arching your back by lifting your head as high as possible and pushing your hips into the floor. Can you do this without pain? Does your lower back (point A) or upper back (point B) feel tight or hurt? Do you have pain or tightness at the back of the shoulder blades? Patients who have tightness in the low back may have tight psoas muscles. Patients who have pain in their back with this maneuver may have an injured or arthritic low or upper back facet joint. If you have an problem with one shoulder blade, that could be a problem in the joint between the shoulder blade and ribs or in the rib cage.





What do I do now? If you had an area where your movement wasn't normal or there is a noticeable side to side difference in motion or tightness, there may be a few different causes. First, this needs to be looked at by a physician, physical therapist, or other musculoskeletal provider. Why? Asymmetrical motion is a leading cause of excessive wear and tear arthritis, so getting symmetrical and balanced motion back is absolutely critical. Second, the lack of motion may indicate problems in that joint that have yet to be addressed.

What are some common ways to treat these tight areas?

-Simple stretching. The longest running stretching book on the market is Bob Anderson's, <u>see this</u> <u>link for Amazon</u> or <u>this one for the basic stretches</u>.

-Trigger Points-Many times there are knots in the muscles that when cleared, will allow normal movement.

-Irritated Nerves-Sometimes an irritated nerve won't allow normal motion in an area as a protective response for the nerve.

-Joint Arthritis-Sometimes an arthritic joint won't allow motion because bone spurs within the joint are blocking motion of the covering of the joint (the capsule) is too tight.