

If you are in school or just starting to practice, it is important to begin a conditioning program that will get your body ready for the physical work you are going to be doing. Start early in your career, and staying in shape will become a normal part of your routine. You will need to maintain your physical conditioning throughout your career to help protect yourself from injury.

To maintain optimal conditioning for your work, you will need to develop activity-specific endurance, strength and flexibility. Depending on the level of conditioning you already have, you may need to concentrate on one of these components more than another. But an effective training program must include all three components.

There is a common misconception among manual therapists that their work provides all the exercise they need, because it is physically demanding. While it is true that your hands-on work can help build strength and endurance in the muscle groups you use frequently, it can also result in overuse and tightening of some of those muscles and disuse and overstretching of others. It also tends to be fatiguing without providing much of a cardiovascular benefit. Many practitioners work every day, and may not have enough time between sessions for muscles and tendons to recover and repair themselves.

A well-designed conditioning program will reinforce the aspects of your work that benefit your conditioning, and make up for those aspects that negatively impact your physical condition. Keeping in shape will not prevent injury in and of itself, but it is an essential component of a holistic approach to injury prevention.

A Multifaceted Approach to Conditioning

A good, complete conditioning program for manual therapists should incorporate all of the following elements:

- Endurance/Cardiovascular fitness
- Flexibility/Stability/Balance
- Body awareness/Proprioception/Good movement patterns
- Strength
- Good circulation
- Lack of adhesions

Endurance/Cardiovascular Fitness

Building muscle endurance helps prevent muscle fatigue. When muscles “give out” from fatigue, they can no longer properly support your joints. If this happens, all of the force of the technique you are applying at that point will be transferred to your tendons, ligaments and cartilage, potentially causing damage.

Most of the exercises you do should focus on building endurance rather than just strength. By developing good overall cardiovascular (aerobic) condition, your heart and lungs will be able to provide the oxygen and nutrients to support the muscular endurance you have developed in your individual muscle groups. People who have both aerobic fitness and endurance in individual muscle groups tend to have fewer MSDs.

Flexibility and Stability

To prevent injury, you need to find a balance between flexibility of your muscles and stability of your joints. Manual therapists spend a great deal of their time doing strenuous work with their arms in front of their bodies. As a result, the front of the body gets overworked and tight, while the back gets overstretched and weak. You can resolve this imbalance by stretching the front of the body, which is tight from overuse, and strengthening the back of the body, which is weak from underuse. The idea is to counteract the forces that are creating the problem.

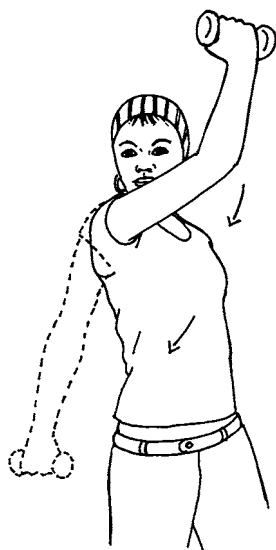
While maintaining a normal level of flexibility is a goal, too much flexibility, or hypermobility, can make your joints unstable. When your joints are not adequately supported, particularly the weak links in your hand and wrist, you risk injuring those structures. Strong muscles are the “first line of defense” for joint protection, so strengthening the muscles around the joints in your weak links can reduce your risk of injury.

Body Awareness, Proprioception and Good Movement Patterns

As you saw in Chapter 5, you can reduce your risk of injury by using good body mechanics and working in near-neutral postures. The goal is to learn what it feels like to be in a neutral posture, where your joints are aligned, your muscles are in their strongest positions, and there

If you have been practicing for a while, your hands and arms are already heavily used and tight as a result of your work. While you do need strong hands and arms to do your work, it is important to find a balance between strengthening your hands and arms and allowing them some much-needed rest. Be aware that strengthening has the potential to overwork your hand and arm muscles and increase your risk of injury. At the same time, by not performing any hand/arm strength training, you could lose the benefit of the joint protection that strong muscles can provide. Use any symptoms you may develop as a guide, and remember to also perform stretching exercises for these muscles.

You will already get some benefit to your arms by doing the upper trunk exercises in the previous section. Those exercises will strengthen your distal arm muscles, since you will be holding weights in your hands. If you want additional upper extremity strengthening exercises, please see the Frequently Asked Questions section at the end of this chapter.



UPPER EXTREMITY STRENGTHENING—Diagonal Pattern A

Starting Position: Sit or stand, holding a 3-pound (1.4 KG) weight in your right hand. Start with your right hand above your left shoulder, elbow bent, palm facing behind you.

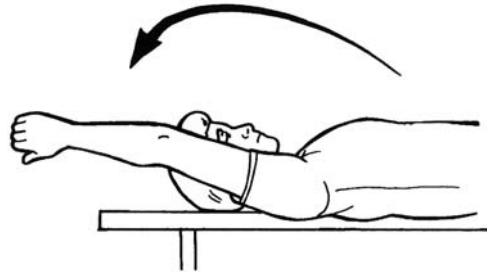
Action: Moving slowly and evenly, pull your arm across your body in a diagonal motion, ending with your right hand against your right hip, elbow straight and your palm facing the floor. Then lift your arm back to the starting position with the same smooth motion. Repeat with the left arm.

Focus on: Maintaining a slow, even pace in both directions.

UPPER EXTREMITY STRENGTHENING—Diagonal Pattern B

Starting Position: Sit or stand, holding a 3-pound (1.4 KG) weight in your right hand. Start with your right hand against your left hip, elbow bent, and your palm facing the floor.

Keep your arm straight (do not bend your elbow). Hold your position when you feel the stretch in the latissimus muscle. Lower your arm and repeat with the other arm.



Focus on: Keeping your low- and mid-back flat against the table as you lift the arm. If your back starts to flex, return your arm to the point where your back is flat on the table again and hold the stretch at that point.

SHOULDER ROTATION STRETCH

Targets: Shoulder internal and external rotator muscles including infraspinatus and deltoids.

Starting Position: Stand with your right arm up and your left arm down, holding onto a towel behind your back.

Stretch: To stretch your right external rotators, pull down on the towel with your left hand. To stretch your left internal rotators, pull up on the towel with your right hand. Switch arms to stretch the shoulder muscles of the opposite side.

Focus on: Keeping the towel in a vertical orientation.



ARM STRETCH

Targets: Shoulder adductor, neck rotator and elbow flexor muscles.

Starting Position: Stand next to a wall with your right arm out to the side and your body slightly turned away from your arm.

Stretch: Gently twist your upper body away from the wall until you feel a stretch throughout your right arm. Hold. Switch sides to stretch your left arm.

Focus on: Keeping your shoulder against the wall as you stretch and keeping your scapulae relaxed.

