

## Corrective Exercises

We teach our patients special blueprint exercises in order for them to help themselves correct and strengthen their own unique issues. These exercises can be performed in the comfort of the patient's home. If done on a regular basis, they can improve the effectiveness of a spinal correction. Along with skeletal misalignment, connective tissues and muscles can be strained or out of place due to improper use or poor alignment. Various stretches and specific exercises can help your body stay healthier and more balanced.

### Corrective Exercises

In order to effectively manage neck pain or back pain, it is vital to exercise regularly and actively participate in rehabilitation measures. By exercising weak areas and regaining strength that may have been lost, corrective exercise places patients on the right path to feeling healthy and mobile. Most often, an exercise program works best when it is tailored to an individual's pain level and condition. This program ideally should include a stretching regime, along with strengthening and aerobic conditioning. Understanding the correct exercises and how to implement them is one of the most important parts of this process.

Individuals who are dealing with lower back pain are encouraged to get physical therapy and exercise on a regular basis in order to help with their own recovery. Quite often though, they are simply encouraged and seldom given the tools and knowledge to accomplish this task. The following will discuss a basic understanding of what causes lower back pain and how to take corrective steps through exercise to rehabilitate this situation.

Feeling better is of course, only the beginning, as further episodes of back pain are extremely common as time passes. When dealing with an initial bout of back pain, or for those who experience it after surgery or extensive treatments, the best way they can minimize the severity of recurrences is to use specific back exercises to strengthen and rehabilitate the muscles in that area.

### Exercise and Causes of Back Pain

There are a variety of structures within the back that can contribute and possibly cause low back pain and discomfort. These areas include:

#### Intervertebral Discs

The intervertebral disc is an exceptionally strong and versatile structure. It basically acts as a shock absorber during our daily activities. There are times when the disc fails, for example if there is an unexpected force, a sudden fall, or trauma caused by lifting. Ordinary wear and tear over time can lead to the intervertebral disc failing. When the disc does become injured, it can become difficult to repair itself, which is one of the main reasons that recurring back pain is so common in many people.

One of the worst issues is that the pain oftentimes interferes with a patient's ability to exercise and this lack of mobility greatly affects the nutrition of the disc. Disc nutrition is achieved when exercise and physical activities cause the disc to swell up with water and then squeeze it out, similar to the way a sponge works. When pain affects all aspects of our physical activity, the injured disc begins to degenerate due to being deprived of its nutrition.

#### Spinal Muscles, Ligaments, and Tendons

The muscles, tendons, ligaments and collective soft tissues around the spine are extremely important in maintaining proper strength and spinal balance. With less activity, the connective fibers of tendons and ligaments can begin to actually adhere to each other and lose resilience. These fibers can tear when sudden overload occurs. Unlike connective tissue or discs however, when soft tissues are injured they can repair themselves much faster.

Muscles are in constant communication with the central nervous system. Certain environmental and biological stressors can lead to tension in the body where the muscles become tense enough to cause muscle spasms. Ongoing tension inhibits normal muscle function and leads to muscle wasting and stability problems. These issues can lead to chronic lower back pain.

#### Spinal Nerves

When the spinal nerves are irritated, pinched or cut, the muscles that the nerves control cannot work. For instance, a bulging disc or a herniated disc on the L4-L5 nerve root may inhibit the muscles in the foot and the ankle. This situation can cause what is known as "foot drop" or the inability to raise the foot and be able to stand on one's tiptoes.

### Acute vs. Chronic Back Pain

Acute pain is very different from chronic pain. At some point in our lives, we have all experienced acute or sudden pain from something simple as a paper cut or something more substantial such as a soft tissue injury (a sprained ankle). The pain felt is immediate, but it resides as the injury heals.

Chronic pain, however, does not correlate to an anatomical injury. It is made up of a constant low level of nervous system stimulation that eventually becomes a pattern. It could possibly even persist as a "neural memory" once the initial source of irritation has resolved. The nervous system adapts to this chronic stimulation by having events become a source of pain which previously caused no pain. It is possible for the pain to progress to uninjured areas.

Certain medications, along with emotional distress can exacerbate this phenomenon. One effective solution to this issue is to distract the nervous system by means of exercising actively in a non-destructive manner. This type of exercise can help to produce the physiological conditions needed to assist the healing process.