



# Posture: Upper & Lower Crossed Syndromes

## Posture and You

Posture is not something we usually think about on a regular basis. Most of us figure that if it doesn't hurt, it's not a problem. However, something as simple as poor posture can lead to more serious problems if it is not corrected.

Having poor posture puts a great deal of strain on your joints, muscles, and other tissues.

The causes of poor posture can be divided into two categories: structural or positional. Structural causes are permanent changes to your body (spine, joints, etc) that require surgery in order to be corrected. Positional changes include one or multiple of the following:

- poor postural habits

- psychological factors such as self esteem
- pain, which causes the person to avoid certain postures in order to avoid pain
- Muscle problems such as tightness, weakness, or spasm
- breathing problems
- general weakness
- being overweight
- loss of proprioception, the body's ability to detect and maintain proper balance

## How Muscles Respond to Poor Posture

Every muscle in our body is attached to a bone and has both a point of origin and a point of insertion. When a muscle shortens (usually associated with contraction) the point of origin moves towards the point of insertion. For example, when your shoulders round forward your head often protrudes farther than normal. The muscles in your upper back become lengthened and weak while your neck muscles become shortened and tight in order to accommodate for the extra weight of your head. Different muscles hold the same concept when you

reach for a mouse, hold a phone between your head and shoulder or lifting, pushing or pulling all day. If these positions are constantly repeated or held for a long period of time the muscles eventually become weakened one way and tense the other. They also then have a tendency to stay in these positions even when you are not involved with the activity.

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**Back To Health  
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# Upper Crossed Syndrome

This is the most common postural issue among desk workers, including receptionists, administrative assistants, and information technology professionals.

This condition is called upper crossed syndrome due to the way the muscles become imbalanced. The neck extensors and chest/rib cage muscles become short and tight, while the mid-back and deep neck flexors become weak and inhibited (see diagram). This results in an increase in the normal thoracic (mid-back) curvature, a condition known as hyperkyphosis. People with this condition will also have an increase in their cervical (neck) curvature, which results in head forward posture.

Causes of hyperkyphosis include:

- Sustained poor posture
- Occupational sources (e.g. —

sitting at a computer, being on the phone)

- Over strengthening the pectoralis or neck flexor muscles
- Other pathologies including osteoporosis or ankylosing spondylitis

People who have upper crossed syndrome often experience pain, trouble sleeping, muscular tightness or weakness, poor posture, reduced range of motion, and general discomfort. It is also important to note that commonly, this condition will be found with low-back problems such as flat back (a decrease in the lumbar curvature) or hyperlordosis (an increase in the lumbar curvature, see below for details).

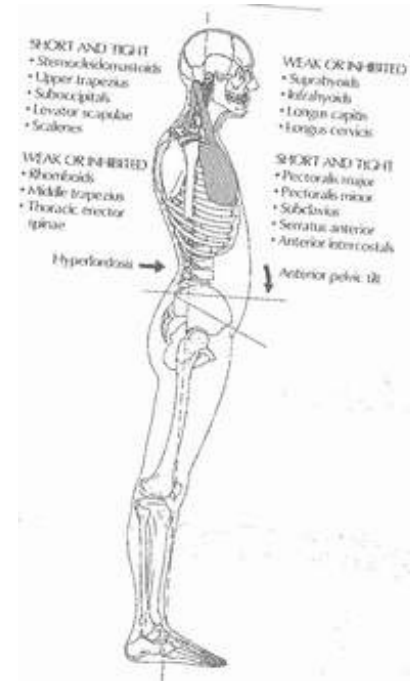


Diagram from *Clinical Massage Therapy* (Rattray, 2000)

# Lower Crossed Syndrome

Lower crossed syndrome occurs when muscular imbalances in the pelvis cause an increase in the normal lumbar (low back) curvature. It is called hyperlordosis and also results in an increased forward tilt of the pelvis.

Lower crossed syndrome is so termed because of the way the muscles become imbalanced. The Abdominals, gluteals, and hamstrings become weakened, while the low back muscles and hip flexors become short and tight (see diagram).

This condition is common among desk workers, but is also often found in people whose jobs require long hours of standing, such as construction or factory workers.

Causes of hyperlordosis include:

- Sustained poor posture
- Standing for long periods
- Pes planus, ITB contracture, or other postural conditions
- Weak abdominal muscles
- Pregnancy
- Obesity

If you have this condition, you may experience pain, reduced range of motion, muscle weakness, poor posture, and general discomfort in your low back region.

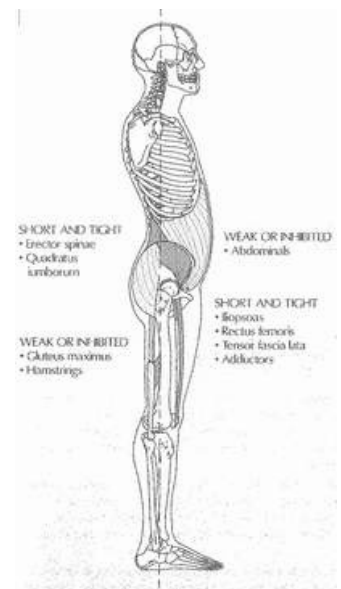


Diagram from *Clinical Massage Therapy* (Rattray, 2000)

# Chiropractics & Orthotics

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As you might expect, poor posture will eventually cause joint misalignment. A doctor of chiropractic is able to find these misalignments that exist underneath poor posture. The curves of your spine will be carefully analyzed from all angles in order to best determine how your treatment will proceed.

Posture can be said to be the window to the spine, because it largely indicates where problems exist. Problems with spinal alignment are called spinal subluxations. Subluxations effect the spinal joints and discs, causing changes to nerve functioning and irritation to the muscles of your back.

Over time, these subluxations can lead to arthritis. They can also lead to other problems within the body,

as the function of the nervous system effects all other systems in the body, including your organs, hormones, and brain. This is why it is so important to have proper adjustments to help correct subluxations!

With postural problems involving the low back, including lower crossed syndrome, it is usually recommended a foot assessment be done. This is because foot imbalances have a negative impact on the knees, hips and pelvis, and spine.

*Improper balance and function of the feet can lead to a variety of conditions including:*

- 1) *excessive rotation of the leg bones stressing the knee and twisting the pelvis and spine*

- 2) *Tilting of the pelvis which places tension on muscles and connective tissue, eventually resulting in chronic back problems*

*High levels of heel-strike shock from breakdown of the body's natural 'shock absorbers.' The shock wave then transmits up the kinetic chain, resulting in painful symptoms up to the head, slowed recovery of leg and spine injuries, and aggravation of other conditions.*



## Massage

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Massage Therapy is well suited to treating postural imbalances such as Upper or Lower Crossed Syndrome. The key is to treat both sides of the body: left and right, front and back. Even if the pain is primarily coming from one source, a postural mal-alignment involves many different structures, which all need to be addressed to correct the problem.

Techniques that stretch and lengthen fascia are used on short

and tight structures, to increase the range of motion in the tissue.

Sore muscles, whether they are tight or lengthened, are treated with kneading and flowing techniques to help relax the tissue, decrease the pain, and increase flexibility. Any related trigger points found in the tissue will also be treated.

Stretching techniques, including Proprioceptive Neuromuscular Facilitation (PNF) may be used to in-

crease range of motion in affected tissues and joints.

Joint mobilizations may also be used for hypomobile joints.

## Active Release Technique (ART)

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ART is a manual technique that relaxes muscle by getting under adhesions with their fingers or thumb. The muscle can then gently be stretched out while applying pressure, breaking up the adhesions.

When muscles are under stress, such as when they are not bal-

anced due to postural problems, adhesions will form. This is why ART is an effective treatment for postural issues. It helps remove the adhesions and lengthen shortened muscles, allowing you to get back proper range of motion and reducing pain levels.

### *Self Care Is Important Too!*

*A proper exercise program, including stretching, strengthening, and cardiovascular fitness is essential for helping correct postural problems, maintaining joint health, and decreasing pain.*

*Any one of our health care team members would be happy to discuss the right plan with you!*

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*Where the athletes go!*

## Help Us Help Others!

For the last five years, the team at Back to Health has collected donations to two local women's shelters: Nelson House and Interval House. We not only raise money to help the women and their children, but we also take in donations of gifts, clothing, and food. We also purchase gifts for the women and children and wrap them.

**If you would like to help out in any way, please let us know!** You can either give a general donation of money, food, women's clothing or children's clothing, or you can pick a specific person (for example, an 8-year-old boy) and buy gifts for him/her.

Thank you for your kindness and generosity during this festive time of year!

### **DON'T**

1. SLUMP.
2. LEAN FORWARD AND DOWNWARD TO REACH YOUR WORK.
3. SIT FOR A LONG TIME.



### **DO**

1. SIT CLOSE TO YOUR WORK.
2. SIT IN A CHAIR THAT IS LOW ENOUGH TO PLACE BOTH FEET ON A FOOTSTOOL AND NO LOWER.
3. HAVE A CHAIR THAT SUPPORTS YOUR BACK IN A SLIGHTLY ARCHED POSITION.
4. MAINTAIN A GOOD SITTING POSTURE. THIS FREQUENTLY REQUIRES A SMALL PILLOW AGAINST YOUR LOWER BACK.
5. TAKE FREQUENT REST BREAKS THROUGHOUT THE DAY.