Practitioner & Patient Guide To CBP® Mirror Image® Postural Exercises & Stretching

Prepared For:

_____**Date**_____

Introduction

Congratulations, you've chosen to receive Corrective Spinal Rehabilitative treatment at a clinic where the health care provider utilizes a technique known as Clinical Biomechanics of Posture® or CBP®. CBP® is the most scientifically researched technique in Chiropractic today. For a complete list of the scientific research on CBP technique and to find a provider for a friend or family member in a different city, state, or country, you can visit us on the web at www.idealspine.com.

The purpose of this brief introduction is to provide you, the patient, with a thorough understanding of the exercise procedures that your practitioner will provide you with and ask you to perform. There is an old saying that I think we have all heard: "You get out of life what you put into it". Whether one is talking about work, relationships, education, or a health care program, this little saying tells it like it is. However, before you dive in and put all your effort into something new, you need a knowledge base to take action from. After all, knowledge is power, so let's begin.

What Makes CBP® Exercises Different from Workout Programs or Exercise in General?

Good question. Most of us today realize that exercise is important for all aspects of human heath. When we think of exercise, general strength and conditioning type workout programs usually come to mind. These general exercise programs are of value to everybody, especially the average overweight and out of shape person of today. However, general exercise programs do not "fix" or improve your spine and postural abnormal alignment that have been identified as the likely cause of your condition. The majority of Medical Doctors, Chiropractors, and Physical Therapists give their patients exercises to help with spinal pain syndromes and spinal stability. But like general workout programs, even these exercises don't "fix" your spine and posture. *If the posture and spine don't get fixed then you're not fixed*! You might feel better temporarily, but over time your posture and spine slowly worsen and decay (**See Figure 1-1**). This is where CBP® exercises are different.

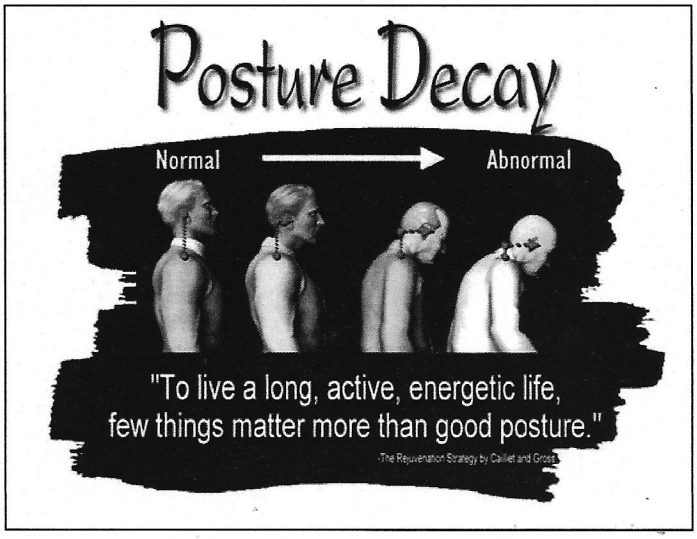


Figure 1-1. The Progressive decay of human posture. We all know someone who has posture like the elderly man at the far right. Ask yourself a question: Does he look healthy? The answer should be a resounding no. As humans age, their postural displacements will worsen. This is because the postural muscles become tired and weak from a lifetime of poor habits. It does not have to happen this way. Follow your CBP® exercise program and open a new window of opportunity for spinal hygiene and health.

CBP® Exercises Are "Mirror Image®" Postural Movements

CBP® exercises are performed in such a manner that they are exactly opposite of a patient's abnormal postural and spinal displacements. These have, thus, been given the name of Mirror Image® exercises. CBP® Mirror Image® exercises aid in the correction of abnormal posture and spinal displacements thereby, reducing the force on spinal tissues. This allows the spine and nervous system (the master control system of the body) to function at its optimum. The CBP® exercise protocol is comprehensive in that all aspects of abnormal posture are addressed. It is important to our discussion that you fully understand what abnormal posture is. Before abnormal can be appreciated, one must first know what normal looks like (**Figure 1-2**). Please take a moment to carefully analyze the optimal human posture in this figure. A person who deviates from optimal alignment will have abnormal muscular development, activity, and function. The CBP exercise program emphasizes correcting posture back to the optimal position.

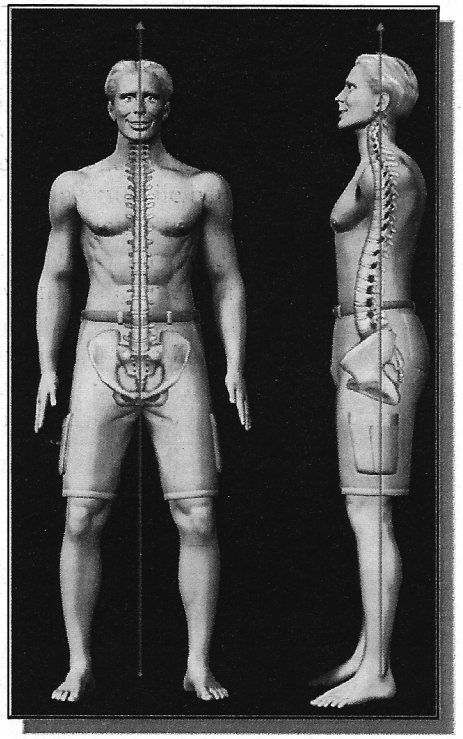


Figure 1-2. Optimal Human Posture and Spinal Alignment. From the front view, optimum position for the spine is vertical alignment or straight up and down. Optimal posture is vertical alignment of the center of the head, ribcage, and pelvis and the gravity line must lie between mid-stance. The reader should notice that the spine is a straight line from the front. From the side view, optimal posture is vertical alignment of the three postural components (head, thorax, and pelvis) and these must line up with the mid ankle. The reader should notice that the spine has three curves from the side: a cervical lordosis, a thoracic kyphosis, and a lumbar lordosis. Only an X-ray can show the curvature of the spine from the side; but posture gives us clues.

Now that you understand optimal postural alignment, the understanding of abnormal postural displacements can begin. The definition of abnormality will be any posture of the human frame that deviates from the optimal posture shown in **Figure 1-2.** For simplicity, it is convenient to break abnormal postural displacements into three regions:

1) Region one is the **Head**,
2) Region two is the **Ribcage**, and
3) Region three is the **Pelvis**.

In each region, there are two types of displacements:

1) A turning type displacement called a **Rotation**, and
2) A shifting type displacement called a **Translation**.

Figures 1-3 and **1-4** demonstrate the abnormal **Rotations** and **Translations** of the human Head, Ribcage, and Pelvis. You should notice that for each region there are 6 Rotations and 6 Translations (count the number of displacements in each row for each figure) for a total of 12 abnormal postures per region, and a total of 36 abnormal displacements (12 + 12 + 12). But the number 36 is for individual displacements and patients reserve the right to come in with Region to Region-Combinations of abnormal postures. Here is where it can get a little complicated. CBP® researchers have proven that there are *130 Million* combinations of the abnormal human postures observed in **Figures 1-3 and 1-4**. Patients must be aware that sometimes abnormal postures will not be clear from a quick glance at the individual and in-depth scrutiny in the form of digitized postural photographs and spinal x-ray analysis is necessary. Thus, no-one, patient or not, should perform postural exercises unless directed by and under supervision of a health care provider.

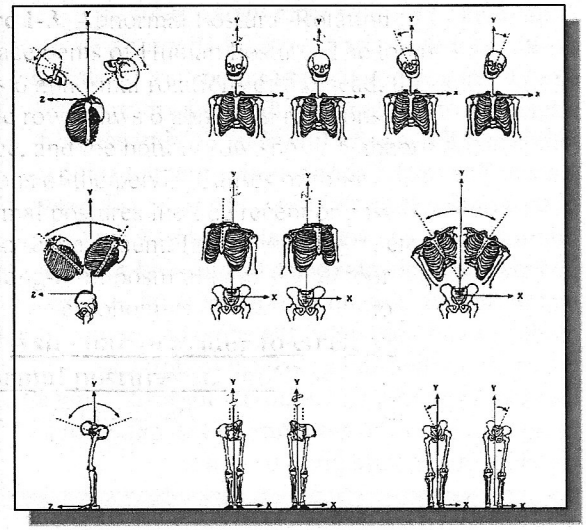


Figure 1-3. Abnormal Postural Rotation Displacements of Human Posture. The top row shows 6 abnormal rotations of the head, the middle row shows 6 abnormal rotations of the ribcage, and the bottom row shows 6 abnormal rotations of the pelvis. Causes of these abnormal postures include recent or past trauma (car accident, fall, sports injury, etc…), poor long-term postural habits, and poor workplace ergonomics. Which one(s) do you have? **Ask your provider to circle your abnormal postures so you'll know**. What about your family and friends, shouldn't they be checked for these abnormal postures too?

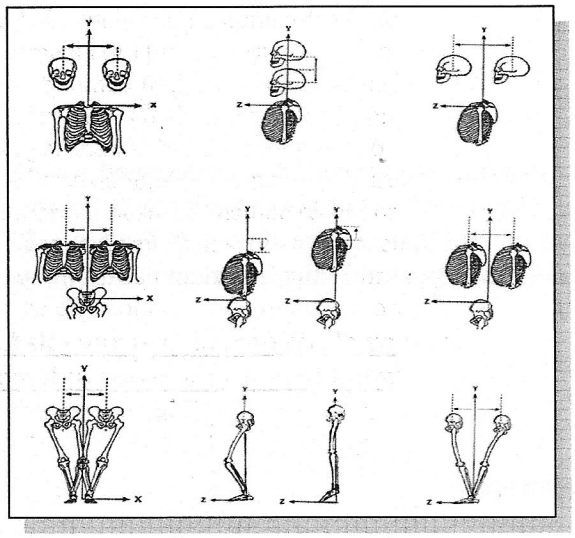


Figure 1-4. Abnormal Postural Translation Displacements of Human Posture. The top row shows 6 abnormal translations of the head, the middle row shows 6 abnormal translations of the ribcage, and the bottom row shows 6 abnormal translations of the pelvis. Causes of these abnormal postures include recent or past trauma (car accident, fall, sports injury, etc…), poor long-term postural habits, and poor workplace ergonomics. Which one(s) do you have? **Ask your provider to circle your abnormal postures so you will know**. What about your family and friends, shouldn't they be checked for these abnormal postures too?

Clinical Biomechanics of Posture® Exercise Protocol

Depending upon when your health care provider thinks you're ready, you will be instructed to begin performing your Mirror Image® Postural Exercises. Initially, you will be instructed to perform only 1 or 2 exercises for correction of the largest postural displacements. However, once your progression is adequate, you will be instructed to perform a more complex postural exercise where two or more postures are added together in the same movement. For a thorough understanding of the progression, **Figure 1-5A-D** shows a sample patient progression. In **Figure 1-5 A and B** the patient is performing a single region exercise from the front and side view. While in Figure 1-5 C and D she has advanced to a combined region exercise in both views.

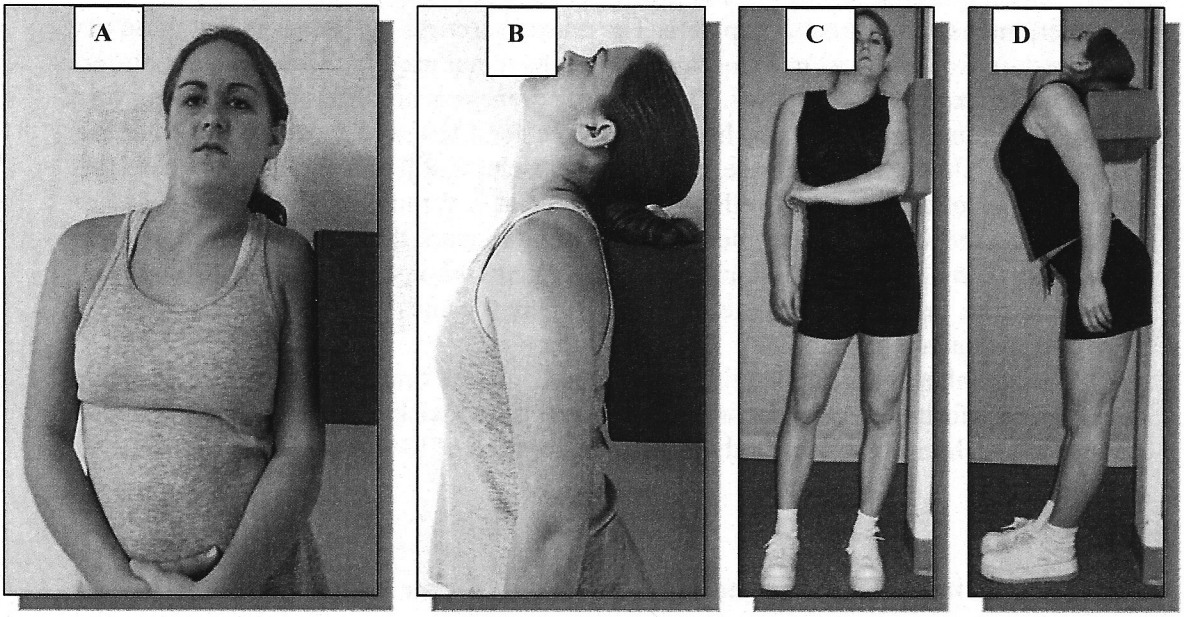


Figure 1-5A-D. The typical patient's Mirror Image® exercise program will begin with a single region exercise and then progress into a multiple region exercise. In A, the patient is shifting her head to the left because her initial head posture was shifted to the right. In B, the patient is bending her head backwards because her initial head posture was bent forward. In C, the patient is pulling her pelvis to the left compared to the feet, her shoulders are shifted right compared to the pelvis, and her head is being pulled to the left. In D, the patient is shifting her pelvis backwards compared to the feet, she is shifting her shoulders forward compared to the pelvis, and she is bending her head backwards.

How Many Days A Week & How Many Exercises Per Day Do I Have To Do?

Another good question! Unless your Health Care Provider specifically informs you otherwise, your Mirror Image® Exercises will need to be performed daily. In the beginning, you will be required to perform 1 set of 10 repetitions of each exercise where you will need to hold each repetition for 5-10 seconds. When 1 set of 10 becomes easy (usually after 2-4 days) you should add an additional set of 10 repetitions. After 5 weeks of performing your exercise, you should be able to perform 100 repetitions of each movement. Generally, 100 repetitions will be sufficient unless your Health Care Provider

states otherwise. There is a Table immediately below with a suggested progression of your exercise repetitions below. You will be provided with an Exercise Log Chart where you will be asked to record the number of exercises that were performed each day. Periodically, it is recommended that you show this to your Health Care Provider so that your progress can be determined.

It is very important that you are diligent in the movement of each repetition that is performed. Counting slowly to 5 or 10 while holding each repetition will help. Also, each repetition should be performed with 70-80% of your maximal effort. In other words, gently pulling your body part into the Mirror Image® won't cut it.

What If I Become Sore From My Mirror Image® Exercises?

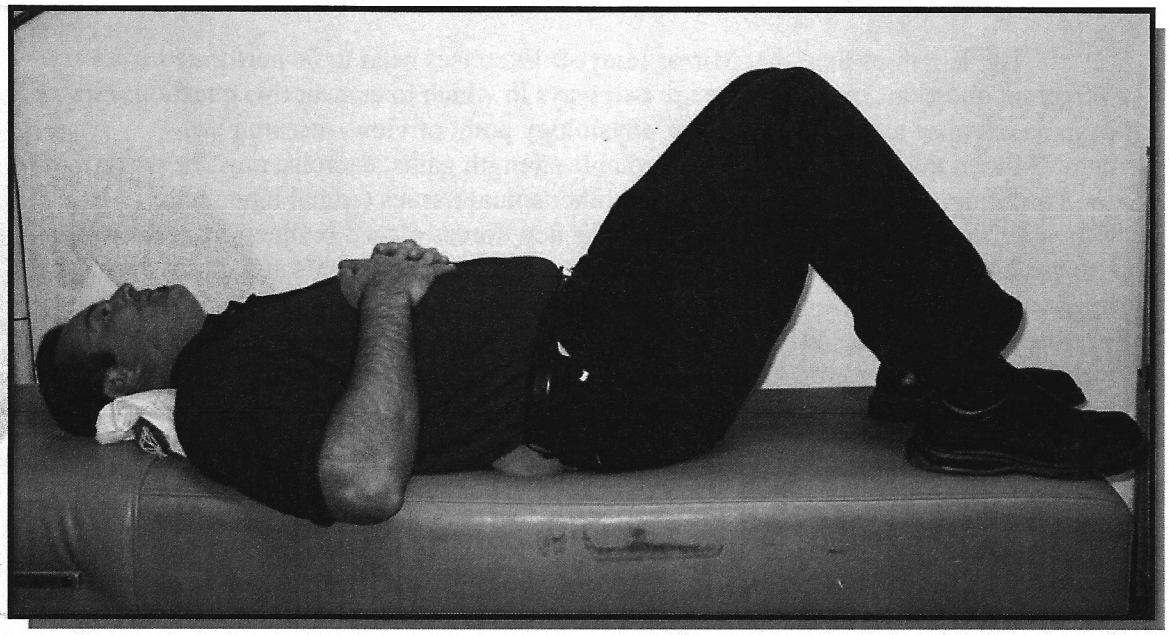
Great question! Some mild to moderate soreness is likely going to occur, however, intense pain is not acceptable. The reason soreness will occur is that these new exercises are working postural muscles that you have not used in this way in a long-time. You have to retrain these muscles. This type of soreness is no different from going for a moderate to long walk when you have not walked for a few weeks or months. After this walk, you would likely have some soreness in muscles and joints and it only means that your body is not conditioned for this yet; just keep at it. It must be emphasized that research has shown that the people who are willing to work through their discomfort and pain while doing a rehabilitation program are the ones who get better. People who give up are the ones that don't get better or worse yet are the ones who have spinal surgery.[2] You don't want surgery, do you?

Remember, your health will improve based on the time and effort you are willing to put into performing your Mirror Image® Exercises! I wish you all the success in your endeavor to achieve a healthy body through restoration of Ideal Postural Alignment.

Table 1. The Suggested Progression of Mirror Image Exercises

Week #	Repetitions At Beginning of Week	Repetitions At The End of Week
1	1 Set of 10 Repetitions	2 Sets of 10 Repetitions
2	3 Sets of 10 Repetitions	4 Sets of 10 Repetitions
3	5 Sets of 10 Repetitions	6 Sets of 10 Repetitions
4	7 Sets of 10 Repetitions	8 Sets of 10 Repetitions
5	9 Sets of 10 Repetitions	10 Sets of 10 Repetitions
6	10 Sets of 10 Repetitions	10 Sets of 10 Repetitions

Icing Instructions to Control Inflammation and Reduce Spinal Pain



There are many misconceptions about the use of ice versus heat for pain. Even though ice may not be as comfortable as heat, heating can actually make your problems worse when used inappropriately. Please read the following instructions carefully to avoid improper application.

1) Ice causes tissues to contract, and slows down circulation in order to reduce inflammation (swelling), and numbs the affected areas.
2) Ice is to be applied to areas of inflammation and immediately after injury.
3) Apply an ice pack directly on the spine, in the area of pain or tenderness or in areas of inflammation.
4) ALWAYS cover the ice pack with a layer of paper towel or thin cloth such as a tee shirt. This will prevent intense cold and possible frost bite to the skin.
5) Leave the ice on for 15-20 minutes at a time and NO LONGER, otherwise you will actually increase swelling.
6) Apply ice once per hour when in pain or after an injury.
7) Position--Lie flat on the floor with your knees bent and place the ice under the involved region. See Figure immediately above.
8) If sore following your spinal exercises or traction, you should ONLY use cold packs, not heat!

Note: Moist Heat (damp warm towel) may be used only when NO INFLAMMATION exists. Moist heat packs can reduce overall stiffness of joints and muscles. However, never use dry heating pads nor use heat on a new injury. If you are sore immediately following postural exercises and traction ONLY use cold packs, NEVER heat.

How Long Do I Need To Perform My Mirror Image® Exercises Before I See Results?

The length of time that Mirror Image® Exercises need to be performed is a very important question, indeed. There are two ways in which to answer this question. First, from an exercise science or muscular physiology point of view, research has demonstrated that in order to see appreciable strength gains, exercise must be performed for a minimum of 2-3 months. However, other spinal tissues (spinal ligaments, intervertebral discs) take time to adapt to the new forces placed on them from exercise. Research has shown that the collagen (building blocks of ligaments and discs) does not repair and fully regenerate for a minimum of 10 months to 1 year. In a study of patients who were told they needed surgery, Nelson and Colleagues[2] found that an aggressive 2-3 month exercise program prevented surgical intervention and that it took at least 3-4 weeks before the patients noticed any pain relief.

The second way to answer this question is by looking at specific research on exercise duration with postural correction as the outcome. In a study of 44 scoliosis subjects with abnormal ribcage posture, patients were required to perform postural exercises daily for 2.2 years.[3] In another study of women, age 49-65 years, with too much curvature of their mid back region, exercises were performed 3 times per week for 2 years.[4] Now specific to Mirror Image® Exercises, research has shown that the average adult subject with spinal pain requires 3 months of treatment in order to obtain a 50% improvement in their abnormal posture.[5,6]

In summary, the minimum length of time for postural exercises is 3 months, however, it is much more likely that it will take 6 months to 1 year before your posture is corrected and your spinal tissues can adapt to the new position and forces. Lastly, many people will need to continue with their Mirror Image® Exercises for as long as they subject themselves to poor postural conditions such as in their work ergonomics, car accidents and other types of injuries.

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