## **Facet Syndrome**

Facet syndrome occurs when the intrinsic muscles of the back become weakened due to overuse or a strain injury caused by lifting, fatigue or a fall. One of the most important functions of the intrinsic muscles is to maintain tension on the external surface of the joint capsule. Each vertebra, in addition to having a disc above and below has four additional joints called the facet joints.

There are two on either side of the vertebrae, two above and two below. On the outside of each of these facet joints there is an airtight capsule that holds a lubricating fluid in place. When a person bends forward the facet joints open up and a small gap is formed between each joint. The joint capsule, which surrounds the facet joint is also stretched out as a person bends forward.

The important function of the intrinsic muscles comes into play as a person straightens out after bending forward. After bending forward, if the intrinsic muscles are weak, the joint capsule becomes stretched out, "baggy" or loose. This is where the problem comes about. When the intrinsic muscles do not function properly then the loose joint capsule can become trapped between the facet joints. I use the analogy of biting the inside of your cheek between your teeth. Only there are more nerves in the low back, so it hurts more.

After the initial pain, inflammation sets in and the muscles around the irritated joint capsule go into spasm to protect the area from any movement which could bring on the pain. With this protective muscle spasm in place the facet joints become immobilized, closed down upon the pinched segment of the joint capsule making it difficult for the facet joints to open and released the trapped segment of the joint capsule.

The focus of therapy and therapeutic exercises then are twofold: I) to open up the facet joint and allow the trapped capsule segment to come out and 2) to strengthen the intrinsic muscles to maintain proper tension on the joint capsule when a person straightens their back, upright, from a position where they are bent forward.

## Therapeutic stretching, rehabilitation exercises and protocols for healing facet syndrome

**Stretching**: If you have been immobile for longer than 45 minutes, sitting or laying down, you must first (before you do anything else) stretch the low back.

If you have been sitting: bend forward leaning your elbows on your knees. Slide your hands forward, then clasping your legs just below the knees, with both hands, slowly slide your hands down your legs toward the ankle. This will lower your chest toward your thighs. Now bend your elbows and let your upper body stretch forward and down. To come back up first place your hands on your knees and straighten your elbows. In other words, use your arms to raise your back upright. Don't use your back muscles. Repeat this a couple of times.

If you have been laying on your back, immobile longer than 45 minutes; first bend one knee up toward the chest and grasp it with both hands. Then do the other knee. Repeat this a few times if needed. Finally, bend both knees up toward the chest to round the lower back. If possible, gently elevating the buttocks. Repeat a couple of times. You should stretch for at least 5 minutes. 10 minutes is better. The longer you have been immobile the longer you may need to stretch.

Immediately following these stretches you must do at least 10 repetitions of the strengthening exercise outlined below.

**Strengthening**: Stand in front of a table or chair. You need a stable foundation for support so do not use a chair with wheels. The chair or table should be about waist high or slightly higher. You are going to use your arms to support yourself and do most of the work as you bend forward over the table (or chair).

Stand about 6 inches from the table or chair with your feet shoulder width apart. Keeping your back straight, place your hands about a foot in front of you with the palms facing down. With your back kept straight, bend your knees until your hands make contact with the table or chair. When your hands make firm contact, straighten your knees to transfer the weight of your upper body onto your hands. Keeping the weight of your upper body on one hand at a time, "walk" your hands forward (one then the other) about 10 inches. Turn your hands (keeping your weight on them) so the tips of the fingers are pointing toward the tips of the fingers of the other hand and the elbows are pointed out away from the body.

Now (like going down after doing a push up) bend your elbows and lower your torso toward the table so your nose is a few inches from the table. The exercise starts in this position, with you bent forward about 90 degrees and all the weight of your upper body is on your hands. Take a breath into your belly and hold it while doing the next movement. This protects your low back. Exhale when you have completed the movement).

Next straighten your elbows, turn your hands so your fingers point forward. "Walk" your hands back toward the edge of the table or chair. DO NOT LIFT YOUR HANDS OFF THE TABLE (or chair).

Keeping your hands on the edge of the table and your (upper body) weight on your hands,

begin by bending your knees, move them forward so your knees are directly above the tips of your toes. At the same time, gently curl or tuck your pelvis forward. Visualize the tip of your tailbone moving forward and down as you bend your knees forward and down. Then lean your head and upper back backwards until your back is straight (your hands are still on the table).

Now to raise your hands off the table, simply straighten your knees.

The result should be a relatively pain free movement from being bent forward to standing straight up. If you are doing it correctly you use your arms to do 90% of the lifting. Only 10% of the work is done by the muscles of the low back. This is enough to strengthen them without provoking further pain.

IF THERE IS DISABLING PAIN DURING THE EXERCISE DISCONTINUE AND STRETCH SOME MORE. When you feel ready re-try the strengthening exercise. In order to recuperate most quickly from facet syndrome, try and do at least four sets of ten of the strengthening exercises throughout the day.

Recommended adjuncts: Anti-inflammatories, muscles relaxants, increased fluid intake, vitamin C, rest.