



Physical Therapy for Low Back Pain & SIJ Pain



Most back pain seen by practitioners is mechanical in origin, meaning that the lesion is within the muscles, ligaments, or connective tissues. Mechanical low back pain is now recognized as a generally self-limiting condition that resolves for most patients in a few weeks with conservative treatment. Most of the time, low back pain is from the culmination of chronic injury and cumulative trauma in respect to a person's general health. Physically fit people have a lower incidence of back pain than those who lead an imbalanced and sedentary lifestyle.

Poor posture is one of the main reasons why injuries occur. Poor posture means that the normal curvature of the spine is exaggerated or decreased. This creates stresses and strains on the discs, ligaments, facets, sacroiliac joints and muscles in the lumbopelvic region. An increased lumbar curve is associated with an anterior tilt of the pelvis, increased pressure on the facet joints, a narrowing of the neural foramina, and shortening of the posterior ligaments and erector spinae muscles, leading to compression of the joints and spinal nerve roots, causing numbness, tingling or pain in the associated innervated tissue. A decreased lumbar curve is associated with a posterior tilt of the pelvis, posterior movement of the intervertebral disc, opening of the facet joints and lengthening of the erector spinae muscles, leading to lumbar instability.

The sacroiliac joints transmit the weight of the body to the hip and are subject to loads from the lumbar region. Although they are reinforced with the strongest ligaments in the body, there is motion at these joints that varies between individuals and sexes. Ligament laxity and instability at these joints may be caused by hormonal changes, trauma to the joint from a fall or sport injury, or poor posture. Instability may lead to joint dysfunction such as sacral torsion or an upslip of the innominate on one side. This can create muscle imbalance at the low back and levator ani muscles, which can lead to pain in the low back and pelvis, gait deviations, bowel and bladder disorders, and sexual dysfunction. ----->Page 2

Nutrition for IBS

Do you ever find yourself with abdominal pain or discomfort after eating a great meal? Do you end up with gas or bloating after you're finished eating? These uncomfortable feelings can start to take away from the joy of eating and the pleasure associated with consuming a good meal. These symptoms of abdominal pain, cramping, bloating, gas, diarrhea and/or constipation can be associated with many different digestive disorders or problems and if they persist, they may warrant a visit to the doctor's office. Your doctor may identify something rare or may find that your problem is a very common one: *Irritable Bowel Syndrome (IBS)*. Any or all of these symptoms can be connected to IBS. If you are like most people who struggle with IBS you have tried numerous dietary approaches to manage your symptoms and chances are you are still trying to figure it all out. Well, here is a clue: First you must learn about fiber.

Figuring out Fiber

In a nutshell, dietary fibers are the indigestible portions of plant foods that move through the gastrointestinal (GI) tract, absorb water and form stools. Fiber can be classified as *soluble* or *insoluble*. Soluble fiber may be the single greatest nutrient you are ever going to encounter to relieve your symptoms or better yet prevent them from even occurring in the first place. The key to managing IBS is to always eat soluble fiber first, when your stomach is empty and make these foods the larger part of the meal. You can find soluble fiber in oatmeal, barley, rice (white or brown), pasta and Sourdough or French breads. Potatoes, carrots, beets and are good sources of soluble fiber too along with mangoes, bananas, applesauce and avocado. Many of the nutrition recommendations for the general public often focus on avoiding white pasta, rice and potatoes, however for the IBS patient these foods are the best tolerated. Fear not! You can still get your whole grains from barley, brown rice and oatmeal.

Insoluble fiber plays an important role in digestion as well but for patients with IBS it should not be eaten alone as it can promote many of the symptoms. It is better to eat soluble fiber first and include insoluble fiber with the meal in smaller quantities. You need not eliminate insoluble fiber because it is found in many very nutritious foods that play important roles in your overall health. In fact your focus should be to consume as much insoluble fiber as you can tolerate but only after laying the foundation with soluble fiber. It is found in whole grain breads and cereals, nuts, seeds, beans, greens, peas and berries. It is also found in broccoli, cauliflower, onions, peppers, celery, peaches and pineapple.

To increase digestibility of these foods you can include them in meals that contain soluble fiber and you can peel, chop, cook or puree them so they go down better. ----->Page 2





Strength and flexibility are important for the health of the low back. In order to accomplish a specific task or movement, the muscles and joints must be able to move through a certain range of motion. The movement will not be accomplished if the muscles are tight or the joints are stiff. This changes the way a person performs activities such as walking, lifting sitting and sleeping, and puts excessive strain on tissues that normally wouldn't be strained during those activities. The primary muscles that support the low back are the erector spinae, abdominals, quadratus lumborum, iliopsoas, and gluteals.

When ignored, muscle imbalance leads to postural abnormalities that lead to soft tissue sprain/strain and the eventual degeneration of the intervertebral disc. Commonly, the posterior annulus area of the disc becomes stressed to the point that even a minor stress precipitates a disc bulge or herniation. High risk groups for back pain are people who spend a lot of time sitting and leaning forward due to the fact that the highest amount of measured pressure occurs with sitting – higher than standing and walking.

The practitioner treating a patient with low back pain should encourage progressive activity with treatment. From the very onset of back pain, an individualized exercise program is recommended. Physical therapists offer highly individualized programs including manual techniques, neuromuscular retraining and specific exercises to heal injuries at the low back and pelvis. Insight also contributes to healing. Patients feel more comfortable when an explanation is provided for the cause of their back pain and what the practitioner will do to help facilitate their recovery. A large part of physical therapy treatment includes educating patients about the structure and function of their bodies to promote wellness and prevent the recurrence of injuries in the future.

By Christine Vlahos, MPT

References:

Hertling D: The Spine. In Hertling D, Kessler RM: management of Common Musculoskeletal Disorders, 3rd ed. Philadelphia, JP Lippincott, 1996: 622-640
 Magee DJ: Lumbar Spine. In Magee DJ: Orthopedic Physical Assessment, 3rd ed. Philadelphia, WB Saunders, 1997: 362-366
 Magee DJ: Lumbar Spine. In Magee DJ: Orthopedic Physical Assessment, 3rd ed. Philadelphia, WB Saunders, 1997: 434-438

Continues from Page 1

Soluble Fiber

- Oatmeal
- Rice
- Pasta
- Sourdough/French breads
- Potatoes
- Sweet potatoes
- Carrots
- Yams
- Turnips
- Beets
- Squash
- Mangoes
- Bananas
- Applesauce
- Avocado

Insoluble Fiber

- Whole grain breads
- Whole grain cereals
- Nuts
- Seeds
- Beans
- Greens
- Peas
- Berries
- Broccoli
- Cauliflower
- Onions
- Peppers
- Celery
- Pineapple

Further than Fiber

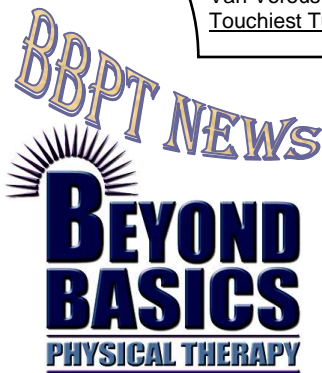
There are a number of foods that can be very irritating to the belly of a patient with IBS. Foods that are high in fat tend to be very hard to tolerate and should probably be eaten sparingly. This includes food such as red and dark meats, egg yolks, cream based foods, high fat oils and spreads, and fried food. Additionally coffee and carbonated beverages can be irritating so stick to decaffeinated teas and water as much as possible. Other common irritants include chewing gum, chocolate, alcohol, and artificial sweeteners.

Finally, in addition to paying attention to what you eat, it is important to focus on how you eat. Be sure to drink plenty of water throughout the day to help move the fiber through your GI tract. Eat smaller, more frequent meals and snacks instead of eating one or two very large meals per day as the larger meals are harder to digest. Avoid rushing through a meal. In a relaxed environment, take your time when eating and enjoy your food!

By Mary Ellen Bingham MS, RD, CDN
 New York, NY www.maryellenbingham.com

References:

Bonci, Leslie. American Dietetic Association Guide to Better Digestion. American Dietetic Association. 2003
 Van Vorous, Heather. Eating For I.B.S: 175 Delicious, Nutritious, Low-fat, Low-residue Recipes to Stabilize the Toughest Tummies. Marlowe & Company, NY, NY 2000.



**Amy Stein, MPT is a Board Member of
 The International Pelvic Pain Society**

www.pelvicpain.org

1560 BROADWAY, SUITE 311, NEW YORK, NY 10036
PHONE # (212) 354-2622
www.beyondbasicsphysicaltherapy.com
BEYOND BASICS PHYSICAL THERAPY NEWSLETTER ©