

## Malalignment of Pelvis and Spine

*I'm sure many of you have experienced lower back pain, hip pain, or leg pain at one time or another. We are very fortunate to have Wolf Schamberger who is the expert that wrote the medical textbook on "Malalignment Syndrome" to explain it to us. Wolf has provided a two part summary of common pelvic alignment disorders to give you some insight into this common condition that accounts for 50-60% of back pain, and what can be done about it.*  
– Terry Treasure, President, 2011

### **Part 1: What is Malalignment?**

With a properly aligned pelvis, leg length is equal, the pelvis is level and the spine is relatively straight. The length and tension in matching pairs of ligaments, muscles and other soft tissues on the right and left side are equal.

Unfortunately, over 80% of us are 'out of alignment', or 'malaligned', by our teens, and this presents most often as one or more of these three types of malalignment.

#### **1. Rotational Malalignment** (80% of cases):

The right or left pelvic bone rotates forward and the other usually compensates by rotating backward relative to the sacroiliac/tail bone that lies between them at the back.

This condition results in:

- a. an apparent leg length difference
- b. distortion of the ring of pelvic bones
- c. the pelvic rim is higher on one side, usually the right, which results in a compensatory curve of the spine (or so-called 'scoliosis') to retain visual fields and balance
- d. predictable side-to-side differences ('asymmetries') in weight-bearing, joint ranges of motion, muscle strength and tension that result in further stresses on the body

#### **2. Upslip Malalignment** (10-20% of cases):

One pelvic bone has been forced straight upward, jamming the sacroiliac joint, and shortening the leg on that side by pulling it up with.

This condition results in:

- a. an apparent shortening of leg length on the side of the upslip
- b. upward displacement of the pelvic bone on that side, with compensatory curves of the spine in an attempt to retain proper visual fields and balance
- c. the predictable side-to-side differences ('asymmetries') noted above that result in further stresses on the body

### **3. Outflare/inflare Malalignment** (40-50% of cases)

This is a rotation of the pelvis in the horizontal plane, so that one side ends up forward or backward relative to the other. It results in stress particularly on the sacroiliac joints and base of the spine.

Note: Any type of malalignment can occur in isolation or combination of two or all three together.

With malalignment, over time some soft tissues are unduly stretched and lengthened; whereas those on the 'short side' are now relaxed and tend to shorten, with eventual formation of tough, fibrous replacement tissue. Often stressed joints and tissue become a source of local and/or referred pain (felt somewhere away from the site of origin, anywhere in the body).

### **Part 2: How Malalignment is Treated**

When malalignment has been identified, treatment is aimed at:

1. realignment using manual therapy
2. building up strength in the core muscles to regain stability of pelvis and spine and to help to maintain alignment
3. improving cardiovascular endurance
4. In situations where there is persistent pain and muscle tension, trying additional treatments such as pain killers, muscle relaxants, acupuncture and/or massage may be required

Typically, 70-80% of malalignment cases respond to the above treatment approach.

After you have started treatment, you can significantly improve your chances of recovery if you do a self-assessment and treatment just to maintain alignment as best as possible on a day-by-day basis and definitely upon any suspected recurrence of malalignment.

Self-assessment and treatment consists of:

- a. learning how to detect whether you are out of alignment and identify whether it is one or more of the three presentations outlined above that apply to your situation
- b. applying one or more of the self-treatment techniques appropriate to the condition

These techniques can be carried out by one or two persons, and rely on the contraction of specific muscles to generate the force needed to rotate a pelvic bone or vertebra back into place. Or, in the case of an up-slip, applying a gentle traction on the leg that has seemingly 'shortened'.

Self-assessment and treatment are best learned at a hands-on workshop. Written material and teaching-DVDs are available which can help you learn a simple routine assessment and treatment technique which you can do at home or on the trails.

With constant efforts at correcting recurrences of malalignment, the more your brain/body gets adjusted to the 'aligned' you, and your ability to enjoy and carry on with day-to-day activities increases.