

Speaking on the level about unlevel hips. Why balance is not simply a matter of skill for skiers.

Fifteen centimeters of powder last night, first on the hill today and off you go. You're sailing down the hill in top form. Life doesn't get any better until that hidden rock reaches out and grabs your ski. Crashing to the ground you hear something pop in your neck. You feel a bit of back pain but after a rest in the chalet, things feel fine. Next day promises incredible ski conditions. You enter your first braking turn then something strange happens. For the first time in years you wrestle with your left turn and your balance feels way off. After a day of struggling with your balance and coordination you look in a mirror to see shoulders that aren't level and a head that tilts to the side. To make matters worse your neck and lower back have stiffened up and the long drive home is filled with pain. Monday morning greets you with strange comments from your work mates about how crooked you look and how you seem to be in pain.

In our skiing education we develop conscious control of the skis and body balance. Very few skiers understand how body balance is influenced by the alignment of posture. Posture is not just something your mother told you to improve at the dinner table. It is, from a chiropractic perspective, the three-dimensional position of your hips, shoulders, head and spine when standing. When the posture is normal the hips and shoulders will be level with the ground and the head will sit straight with your spine. Skiers seeking to improve their abilities need to realize that posture can become abnormal and lead to significant imbalance of weight distribution onto the feet. This shift of the center of mass in your body translates into muscular compensation that introduces stresses and restrictions to your skiing.

We now understand that a little bone called Atlas, located at the top of the neck, controls the alignment of posture. When shifted out of its normal (square) position with your head, the misaligned atlas produces a cascading breakdown of posture forcing the hips to rotate and tilt. Tilting of the hips forces your leg to pull up, shifting your center of balance away from the midline of your body. When skiing, your muscles have to compensate for this imbalance and your weight-bearing joints (knees, hips, etc.) become stressed. Prolonged skiing with this imbalanced and misaligned posture promotes joint irritation, inflammation, and accelerated muscle fatigue. Don't plan on long skiing days with a misaligned posture because your lower back will quickly tell you it's not happy and pain will develop. Add to that the degradation of your performance and increased potential for falls and you can see why this becomes a serious concern.

Skiers who are at a beginner or intermediate level may not understand or even care if the hips are level or the legs balanced with each other. They're still in the process of learning and refining basic skills and so pain and discomfort become their only concern. On the other hand the advanced skier striving for perfection will want to remove the muscle compensation effect to free up the back muscles to do their job efficiently and with the greatest flexibility possible. Performance factors including weight control, timing, and body balance all are disturbed when the hips distort. The posture of the skier is the foundation on which the back muscles perform. Take this foundation and distort it and the muscles must compensate causing fatigue, reduced flexibility, imbalanced coordination and poor timing. Consider what happens when a beginner automobile driver uses a car having manual steering with a bad front-end alignment (misalignment). They will inevitably find it harder to learn operator skills while wrestling with the steering. And so it is that the beginner skier with a misaligned posture will struggle more to learn the "operator skills" of skiing. When performing maneuvers that demand the highest level of flexibility and balance control the advanced skier's performance is enhanced with a properly aligned posture.

Subconscious control of posture originates in the upper neck region, and health providers (Chiropractors, Medical Doctors, Physiotherapists) are learning that the position of the Atlas bone is the key to corrective care. The technology to measure and treat the Atlas has been developed by the National Upper Cervical Chiropractic Association (NUCCA) and doctors who are NUCCA trained deal exclusively with the Atlas. Highly precise X-rays and posture measurements guide the doctor in correcting not only the position of the Atlas, but the entire posture.

So, if you don't believe posture makes a difference, try skiing with a one-inch heel lift placed in a boot and you'll become a believer. It's tough skiing with unlevel hips isn't it?

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