



## Visual Cues to Inefficient Body Movements in Telemark Skiing

### *Baseline Movement Pattern*

While constantly moving forward in the direction of travel, the skier redirects their center of mass (COM) diagonally to allow their legs to move actively. This allows him/her to make adjustments within the turn at any point, and thus maintain flow down the hill.

This guide is just that - a guide - to what is inefficient in Telemark skiing. If you "see" one of the cues below, it doesn't necessarily mean said cue is an indicator of the section in which it's listed. As you can see, the same cue shows up in many places! Conversely, a skier could not display one of the listed cues and still have a movement issue. The trick is not just to see a cue, but to understand the concept of what is and is not efficient movements, and to trace ANY cue to its cause.

Cues are almost always indicators of a problem, not the problem itself. Therefore, simply encouraging someone to change what you see - telling a skier to make his/her shoulders level, for example - will NOT address the problem! *Seeing a cue then "looking it up" below WILL lead to confusion. Many of the "visual cues" we see in a skier can have a number of possible causes. Understanding WHY a cue is present is the key, and this reference is simply a tool that can help you do so.*

Even great skiers may pass through any of these movements, and display the attendant visual cue, especially in difficult terrain, at high speeds or in tricky snow conditions. If a skier **consistently** makes these kinds of movements, then we need to address the problem.

### **A. Flexion and extension in ankles, knees and hips is not in proportion, causing out-of-balance movements.**

#### VISUAL CUES

1. Knees and hips flex, but ankles don't. The hips end up constantly behind (an "in the back seat" stance).
2. Knees flex and drive forward, overwhelming the ankle flex. This puts the weight too far forward, often creating a front foot dominance in tele, or an over-the-handlebars stance and/or piking at the waist in parallel.
3. The legs are continuously flexed with no lengthening during the turn. This often appears as either "wiggling" down the hill, or as getting lower and lower then blowing up.
4. The legs lengthen, but flexion (the legs "shortening") happens all at once. This often appears as someone jamming into the bottom of the turn.
5. Extension is primarily vertical, leading to late edge engagement. This is often accompanied by too much lateral movement of the body (a.k.a. tipping, banking or having a weak inside half).
6. The shins lose contact with both boot tongues, resulting in lose of ability to respond to pressure. This can appear as an "in the back seat" stance or as a collapse onto the tops of the boot cuffs.
7. The ankles stop flexing before the completion of the arc, resulting in bracing, which in turn pushes the skis sideways, rather than in guiding them along the path of the arc.

### **B. Isolated forward or lateral movements of the feet, legs, and hips - or lateral movements of the body - are used to engage and release the edges of the skis.**

#### VISUAL CUES

1. The body tips down the hill to create release. This is often indicated by the head moving before the rest of the body (starting the turn by "throwing" the head), or by shoulders that are not level in relation to the skier's balance.
2. The body moves vertically and then diagonally to let the legs move away from the body. This is often seen in skiers who think in terms of "up" and "down" rather than "lengthening" and "shortening" in a turn.
3. The shins lose contact with both boot shafts forward and laterally. This is often seen as an obvious, upward "pop" to start the turn.
4. The edging from old to new edges is not smooth, with a pause in the body's motion and a resultant traversing phase within the turn. This is often seen as a dead spot in both tele and parallel, or a drifting entry - rather than a crisp guiding - into the new turn.



**C. In telemark, the fore and aft movement of the skis is sequential and/or discontinuous and the body moves away from being centered between both feet.**

VISUAL CUES

1. The front ski moves forward and around before the edge release, setting up a wedging stance (creating a "wedge-amarok" or, at the farthest extreme, a two step "T is for Tele" stance).
2. The front foot is the focal point for fore and aft centering movements during most or all of the turn. This is often seen as the classic sequential, "tele then settle to center" move, the "tele two step," or the "rear foot rudder" move.
3. The whole body "follows" the front foot into the turn, often seen as a swinging of old uphill shoulder and an obviously stiff relationship between the shoulder and the hip. Can be one cause of the body following the skis too much, or of a lack of appropriate countering movements.
4. Before edge release, there's a move forward over the front ski or back over the rear. This is often indicated by a sharp, front foot edge set before release, or by a rocking motion of the upper body backwards (often accompanied by the use of one or both poles as a launching platform for the new turn).

**D. There is little or no separation between upper and lower body through the turn.**

VISUAL CUES

1. The whole body rotates through the entire turn. At the extreme, this is often seen as over turning (usually accompanied by a front foot dominant stance) and falling uphill, often supplemented by an uphill pole plant to prevent the fall and to create a false sense of flow into the next turn.
2. Turning movements originate in the upper body. This is usually indicated by a strong movement of the shoulders towards the new turn before edge release, although it can be a quite subtle movement just prior to edge release.
3. The upper body rotates with the skis, then "unwinds" in the opposite direction at the end of the turn (whole body rotation followed by counter rotation).

**E. The upper body impairs efficient movements, hindering balance throughout the turn and impeding or preventing smooth flow down the hill.**

VISUAL CUES

1. The hands are back. This often accompanies the "in the back seat" stance, or it can actually pull the skier back at the end of the turn.
2. The inside hand, shoulder and hip lead into the turn, but then continue rotating around, so that the body follows the skis too closely (not enough countering movements).
3. The pole swing and/or touch timing is out of synch with the turn. The most common example is braking turns with gliding turn pole touch timing (in braking turns, the pole touch occurs at the edge set; in gliding turns, it happens at the release).
4. The eyes and head follow the inside path of the turn. This often indicates a lack of separation between upper and lower body (see D above), and/or tipping to start the turn.