

Edge Sets and Tension to Stay Balanced

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The purpose of this document is to define tension, the tension used keep balanced in skiing. Skiing is a series of up and down movements. If turning, the up movements create an edge set. Up movements put weight on the edges and down movements un-weight. Tension is what we do with our body when we are un-weighting the skis. Tension keeps the body with the skis. Without tension, the body naturally falls back and to the inside of the turn. Tension keeps the body balanced over the middle of the ski, which is in front of its narrowest part back at our heel. Whether going forward or backward, the skis are designed to turn from this point. Tension keeps the body balanced over the outside edge. Tension gets us around the corner before we have to catch-our-weight again, also known as the edge set. Since the edge set happens in an instant, we use tension and unweighting almost all the time.

Muscles

Muscles work in pairs. Tightening one causes the other to relax. It just so happens that the same muscles we use to stay balanced with tension are paired with the muscles we need to relax to unweight our skis. In other words, tension will help us: get our ski on edge, absorb the pressure of the turn, keep the pressure of the turn above the apex, and get around the corner as fast as possible. Remember, even when we want to slow down, we want to get around the corner as fast as possible. Remember, we slow down using a reverse pie either up or down the hill before the edge set at the corner. Remember, slowing down makes “L” shaped drift turns. Drift turns are used to get back on line or even slowdown in all events from Downhill to Slalom.

Various Edge Sets

The edge set happens at various places depending on the steepness of the hill, the line and the terrain. Here are a few examples: In a flush in slalom the hill is flatter and the edge set happens straight down the line of the flush, usually but not always the fall line. On a very steep hill, because gravity takes care of the speed and keeping unweighted is the problem, the edge set happens above the apex across the fall line. Here you may need an “L” shaped turn with two edge sets, one to get into the reverse wedge and the other to create the corner. In a normal slalom turn with open gates the edge set is down the fall line between the gates at the top of the turn. Hair pins are a combination down and across. In a normal GS turn the edge set can be anywhere from the middle of transition to the top of the turn. If from the middle of the transition, it is like a skipping motion off the uphill ski with extreme tension to stay in balance all the way to the next transition, putting turn pressure above the apex. Between that point and the slalom turn point, the tension is used to put turn pressure above the apex.

Summary: Edge Sets and Tension to Stay Balanced

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