

## **Ski Poles: Pounds you lift, swing and carry!**

**By Gear West** Complete article at [www.GearWest.com](http://www.GearWest.com)

Racers average between 30-45 pole plants per minute. Over the course of the 52 km American Birkebeiner the winner may have lifted his poles more than 5,000 times. A skier completing the race in 3 hours could have poled 7,000 times and a 4hour skier might have lifted her poles 10,000 times.

Skiing with heavy ski pole are not fun! If you and a friend ski a 3-hour Birkie and the friend uses Swix Triac's and you have Swix CT4's, you are lifting an additional 3 oz. per stroke. If each stroke moves your pole 5 feet. This equates to lifting an additional 6,500 ft lbs during the race! Like curling 1 gallon of milk in each hand 375 times. Will you still beat your friend?

The most important shaft properties are overall and swing weight, stiffness, and strength. Swing weight refers to the pendulum motion of a pole plant and that more weight near the pole tip requires more energy from the skier. The stiffer the pole the more of your energy goes into forward movement and the less into bending the pole. Strength refers to the durability of the pole.

### **The Right Pole, in the Right Length!**

#### **Recommended Pole Length**

We recommend skier's body height in cm, less 20 cm for skate, and less 30 cm for classic as our Gear West Norm for most Recreational Racers. In most cases, this will, for adults, result in classic poles that reach the center of the shoulder bone. For skate the pole will reach around your mouth. This is measured at Gear West, or at your home, with normal shoes on.

#### **Do advanced skiers use taller poles than beginners?**

For shorter races such as sprint; definitely yes. World Cup skiers can use 5-7.5 cm longer poles than recommended above. We have also seen a trend that World Cup skiers in general have increased their pole lengths the last decade. The reason is most likely the much stronger upper bodies for professional skiers these days, and shorter (sprint) tracks with fewer long sustained climbs. There are of course individual differences, but in general World Cup skiers use 2.5 cm longer poles than determined by the Gear West Norm above.

#### **Does technical ability change this?**

Not really, but skiing with longer poles than recommended requires good technique.

#### **Why do classical skiers use shorter poles than skaters?**

In skating, bigger movements, greater speed, and always using two poles simultaneously allows you to use longer poles.

#### **How is a ski pole length measured?**

For most pole brands the length is measured form the tip (spike) of the pole to the top of the grip (not including any locking cap/wedge/building height).

More of Gear West's Pole Wisdom, Value, Selection and Service at <http://www.gearwest.com/images/pdf/GWSkipole.pdf>