

The Physics of Movement

How do athletes move? Are waterskier's athletes? If so, should waterskiers move like other athletes? These are questions that are often overlooked.

Waterskiers are indeed athletes and although many skiers do not train like athletes ([click here to see one of my previous articles form WaterSki Magazine for more details on how to train](#)). Athletes have some basic rules of movement and we as waterskiers should be no different. Sure there are some differences based on the fact that we are being towed by a 2000 pound boat, but the base of our movements should be consistent with all athletic movement. What does this mean?

Take a look at the picture below as we make a crossover comparison. Most of you have read and heard about the crossover between snow skiing and waterskiing, but below you can see a picture of my cousin Alli Smalley (one of the top girls basketball players in the state of Alabama) making a move to her right on the basketball court. Notice the "angulation." Doesn't it look strikingly similar to a slalom turn?



Alli Smalley (Alabama All State Basketball Team Member)

Also, take a look at Jason Hutchins making a high speed turn on his mountain bike. See the similarities here as well?



Let me attempt to further explain. There are two basic and important similarities in the movements of all athletes.

1) Balance

2) Proper core movement

BALANCE: All athletes must be balanced to execute effective and efficient movement. This balance does not just relate to standing with equal weight on both feet, but becomes slightly more complicated when there is dynamic movement. Now to understand this principle, let's talk about effective core movement.

PROPER CORE MOVEMENT: We can't go anywhere without first stabilizing and moving our core (which we can broadly say consists of hips, abs, and pelvic area). To maintain balance when there is any sort of direction change, athletes must first move their core. In the picture above you can see that Alli's feet are no longer centered under her body. Although we all know that she has probably (in the frame previous to this picture) stepped slightly left to prepare to make a move to the right, we can obviously see that her core is moving to the right (in the direction she wishes to travel). This is the key. Some of you may be saying...that is not the way I move when I play basketball (or whatever sport you choose to participate in). If so, maybe you should ask yourself why you were never the top basketball player in your state, or the quickest defender on your high school soccer team, or the best at whatever sport you participated in at a younger age.

The good news is that it is not too late. If you can learn to move this way on your slalom ski, you may very well start to move ahead of the pack on your slalom course.

This FACT of athletic movement is an integral aspect of all of the theory behind counter-rotation...it allows this to happen. It is also an element of the concept of a static upper body throughout the turn. All of these things give you the opportunity to move with your core first.

So the next time you go out and ski, spend some time on the shore trying to understand how to move with your core first in order to create effective and efficient movement and maintain balance on your slalom ski.

By: Seth Stisher with contributions both directly and indirectly from Jamie Beauchesne and Jason Hutchins.

Sure Fire Trick Runs Trick Ski Tip by Carly Clifton:

Want to be sure you stand up your run in tournaments? Try this:

Tip #1 When you are getting ready for a tournament and you want to be sure that you are going to stand up your run, I would suggest that during your trick set you break down your run into a couple different sequences. Just work one sequence at a time and then after you have worked on your whole run broken down like that; then you should put it all together. By doing it this way you can give yourself more energy for each part and then once you go to put it all back together it will flow better and with more ease.

Tip #2 Another major point to make sure that we all follow is that we only put tricks in our run that we are making 95% of the time. If you stick to this concept we will be more successful in standing up your runs in tournament and you will become a more consistent trick skier.

Carly is available for instruction from May through August with H2Osmosis Sports @ Trophy Lakes and also available for traveling instruction from time to time. E-mail coach@h2osmosis.com with any questions about your skiing or training or to try and set something up with Carly.

COMING SOON...articles by Richard Wood of www.skishotz.co.nz on training to achieve the fitness you need to accomplish your waterskiing goals

How to accomplish your waterparking goals

