

Roll the Hoop for True Putts

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ZipTip: SETUP & STROKE: Roll the Hoop for True Putts

Visualize the ball as only a solid disk vertical on its edge in the plane of the putt, with only one dimple on the back equator, one dimple on the front equator, and a central dimple on the top, and roll this hoop or disk to the hole with your solid putting stroke.

A sphere, like a golf ball, contacts a surface only at one point at a time, and as it rolls, the contact defines an equatorial circle around the perimeter of the sphere. Nestling a bit in the grass, a golf ball actually contacts the turf in a thin band around the equator. This means the ball acts like a disk, hoop or ring as it rolls. One of the most accurate ways to putt is to envision the golf ball as a solid disk on its edge, and then roll the disk to the hole.

The Theory. It's not enough to try to make a straight stroke, to try to keep the putterface square, or to make a stroke that sends the putter's sweetspot down the starting line toward the hole. All of these thoughts are helpful, but they all leave out the critical component of impact, the precise manner of interaction between the putterface and the ball. Envisioning the ball as a solid disk on its edge integrates these notions and more sharply defines the motor skills you need to develop for accurate putting and true rolls.

Some Science. The physics of a rolling sphere bear this out. The angular momentum of a rolling or revolving sphere determines its "wobble-ocity" (if you will) along the line of motion, and for a sphere this is very much like the angular momentum of a rolling disk or wheel. In a wobble-free roll, the wheel or disk or hoop or ring rolls end-over-end and the plane of the disk stays vertical in the vertical plane of the path to the target. In a wobbling roll, the vertical axis of the disk is unsteady and oscillates from side to side, exerting forces that alter the ball's path.

Stripes, Disks, Spools. You've seen range balls with a red stripe painted around the equator, and you've seen the tips that suggest you line up the stripe at the hole and try to roll the ball so the stripe stays vertical as the ball rolls and does not wobble. You can do the same trying to make the ball logo roll true. That's helpful, and let's take it further. Imagine that the ball is ONLY the stripe, or a disk on its edge as thick as the stripe. What does it take for a good stroke to send that solid "hoop" on a good end-over-end, no-wobble roll at the hole?

You have to try it to see. One "easy" way to try this out is to get a spool of thread and try to putt it straight. The spool is a barrel with "wheels" at either end. In order to putt this straight, your putterface MUST be square at impact TO BOTH WHEELS at the SAME TIME. Any twist at all in the putterface at the moment of impact sends the spool twisting off line immediately. It's very hard to putt a spool.

It's not quite that hard to putt a thick disk on its edge, because it's only one "wheel," not two as with the spool. Still, the same notion of square putterface at impact is essential.

The Mental Image. As you look at the ball for a straight putt, you have four problems at once: 1) identify the starting line; 2) make a straight stroke; 3) match the stroke to the line of the putt; and 4) match the online stroke to sending the ball on line at impact. Here's a useful way to get the last part right.

Imagine the ball sitting on the line of the putt -- a line that extends forward about 5 or 6 inches and backward an equal length. Imagine this "line" as a stripe perhaps 1/8 inch wide. The ball touches this line only at one point on the bottom of the sphere of the ball. The stripe beneath the ball defines a solid disk inside the ball 1/8th inch wide and sitting up vertically on the stripe. Ignore the rest of the ball's sphere and putt this disk.

This disk has three critical points to note: 1) the top point or dimple, vertically opposite the bottom dimple on a line through the ball's center of gravity; 2) the back dimple on the horizontal equator; and 3) the front dimple opposite this on the horizontal equator on a line through the ball's center. All three of these points are "on line" or in the vertical plane of the putt.

Personally, I like to see this disk as solid and somewhat heavy-- perhaps a solid, hard rubber gold in color.

Matching the Stroke to the Putt Line through Impact. The payoff of this image is that you see exactly what needs to be done to roll the ball where you intend, with a true roll. Specifically, the sweetspot of the putter must move through the center of gravity of the ball by moving through the back dimple and out the front dimple, while the putterface is kept square to the putt and the "disk" of the ball at the same time. Aim to make the stroke so that the square face impacts the back dimple at a time the sweetspot of the putter is moving along the trajectory that carries it through the ball's center and out the front dimple.

In whatever manner you identify the starting line of the putt, this starting line has to connect up to the front dimple, and this starting line has to extend straight back through the ball and out the back dimple. In my routine, as I look back along the line from the hole or target to the ball, I identify the starting line in the last 5 or 6 inches AND note both the front dimple and back dimple on the ball's "disk" that I have to stroke through with the putterhead's sweetspot.

A Word About "True Roll." The so-called "true roll" in putting is often described as a putt without skid, but studies have shown this is not really the case (there's always some skid, up to about 15% of the putt), AND no studies have shown that some skid is necessarily bad for the success of the putt. Many golfers try to hit the upper quadrant of the ball, or deliver a slightly upward blow, to attain this character in the roll, believing it makes the ball stay on line better.

However, the physics of keeping the ball on line has more to do with keeping the putterhead's sweetspot moving squarely through the ball's disk oriented in the plane of the putt. The solidness of impact and distance control has more to do with moving the putterhead's sweetspot through the ball's center of gravity. Both can be done with a level blow, a downward blow, or an upward blow. But trying to hit downward or upward injects an increased risk of delivering a blow that is askew to the plane of the ball's disk. And there is also more risk that the putterhead's sweetspot will not pass through the

ball's center of gravity, but either above or below the ball's center, causing "thin" hits with less energy and distance.

Ultimately, it's much more important to use a stroke that is essentially level BUT IN PLANE with the putterhead's sweetspot impacting solidly through the ball's center of gravity. A little variation in the upward or downward trajectory won't hurt much, but it likely will alter the total distance of the putt a bit (not desirable), and won't add anything at all for keeping the ball on line to what you can get with a level blow.

Make This Part of Your Game. Putting the hoop or disk of the ball is easy to incorporate into your game with at-home or practice green exercises. At home, simply putt a spool or use a round checker or tinker toy wheel or similar object. There are even specially made balls with a raised ring around the equator that you can use on the practice green or your carpet. On the practice green, make sure you connect the putt line with the orientation of the ball's disk by noting the front and back dimples and making the stroke send the putterhead's sweetspot through the center of the ball's disk. Online putting at its "truest."

For more tips and information on putting, including a free 10,000+ database of putting lore and the Web's only newsletter on putting (also free), visit Geoff's website at <http://www.puttingzone.com>, or email him directly at geoff@puttingzone.com.