



Why the Flat Stick MUST be Flat

The following article explains the best kept secret in golf. Shhhhh!

Any time the clubface (scorelines) of a golf club are not square to the target i.e. the toe is up or down at impact, the ball will fly to the Left or Right of target. This effect is magnified as the loft increases. Therefore, if we could hit a club with 0 degrees loft we would not see any directional deviation, regardless of how much lie angle error is present. Contrary, a pitching wedge with say 48 degrees of loft will show significant deviation.

Now, most golfers think their putter has a flat face. Believe it or not, putters normally have a loft angle of 3, 4, or even 5 degrees - for this exercise we will assume we are using a putter with 4 degrees loft.

Let's say our golfer's putter sits with its toe $\frac{1}{4}$ " or 6.5 mm in the air - that means the putter head is at an angle of 10 degrees toe up from horizontal. With me so far? OK, so what?

Well, let's look at a 6-footer on a very flat and true green; the nap is running with us so we don't have to allow for any borrow, just a dead straight putt!

Our golfer sets his putter exactly square to the target and, with a smooth and perfect technique, strokes the ball at the target. Missed! The ball misses on the low (left) side of the hole. How could this happen? Everything was absolutely perfect wasn't it? This time the golfer CAN blame his tools - the fault lies with his putter. And here's why:

We already established our golfer's putter had a loft of 4 degrees and was sitting 10 degrees toe up at address. Each degree toe up we rotate the face of a club with a loft angle of 4 degrees we change the direction by approximately 4mm per metre the ball travels. Therefore, the ball on our 6-footer (2 metres) moved 80mm, or 3", to the left over the length of this putt.

$$4\text{mm} \times 2 \text{ metres} = 8\text{mm} \times 10 \text{ (deg)} = 80\text{mm} \text{ (3")}$$

If our golfer had aimed exactly for the centre of the hole which is $4\frac{1}{4}$ " or 108mm in diameter, this putt would have missed the hole by 1".

So, the secret is out. You now know why you always miss on the low side! Just don't tell everyone, Shhhhh!

Better get that flat stick flat!

All the above figures quoted here are rounded to make things easier.