What Causes a Flyer in Golf?



by Miles Mathis

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For those who don't play, a flyer is a shot hit by an iron out of the rough that flies farther than it is supposed to, given the club. If you normally hit an 8-iron 160, say, a flyer may go 170-180, putting you over the green in big trouble. My father told me a flyer was caused by grass getting between the club and the ball, causing it to jump or squirt out of the rough, but that never made much sense to me. Finally, today, I looked it up, after 50 years.

Why didn't I look it up earlier? Well, because I never hit flyers myself. Never once in my entire life have I hit a flyer. But I have been watching Grant Horvat and the Bryan Bros on Youtube recently and those guys are hitting them all the time, so the question came up for me again.

As usual, none of the explanations from the mainstream make any sense, so I will give you my own. The standing "science" is that grass or moisture gets between the club and ball, causing the ball to slide up the clubface with less friction, leading to lower spins and higher launches and therefore greater distances. However, that explanation fails on many levels, starting with the fact that less spin doesn't lead to massive gains in distance. If it did, all drivers and fairway woods would have long ago lost their grooves, since you don't need spin there. Driving irons would also be grooveless. All long clubs would be pre-moistened or oiled, to facilitate a flyer. If grass so easily led to massive gains in distance, club manufacturers would sell clubs with grass already pasted on.

Besides, I hit out of high grass all the time, never once getting a flyer, so I know that can't be the answer. In fact, it is my experience and swing that allows us to solve this. If we can figure out why I don't hit flyers, we can figure out what causes them.

The reason I don't get flyers is that I don't hit down on the ball much, even with short irons. I am a picker, not a digger. I don't compress the ball into the ground. Or I do, but very little compared to most people. In this way I am completely different than the guys on Youtube, or most on tour. They hit huge divots while I hit very shallow ones, or, with long irons, almost none at all. So it must be that compression that is causing the flyers, not grass or moisture on the clubface. That's also a clue, since you are much less likely to hit a flyer with a long iron. Why? According to what I am telling you, it is

because you aren't compressing as much. You aren't hitting down.

Well, these fellows also compress in the fairway, so why no flyers there? Because in the fairway the grass is cut very short, so the ball is already pretty much on the ground. But in the rough, the ball is usually sitting up some amount, and you don't get flyers with the ball sitting way down. Tellingly, you also don't get flyers with the ball sitting way up, and that is because in that case you can no longer compress. If you do you will go right under it. So even the diggers have to change their swing in that situation and sweep it out of there.

You get flyers when the ball is sitting up, but not too far to compress. To understand it, you have to understand that if you are compressing, you are driving the ball into the ground. That is what hitting down is about. So in that case, both you and the ground are hitting the ball. The very first motion of the ball is DOWN. It goes down until it hits the ground, and only then does it move up the clubface. You are pinching the ball between the ground and the clubface. But if the ball is already right on the ground, you get very little bounce affect. The ball is already on the ground, so it can't bounce off the ground. But if you are in the rough in the right circumstance, the ball is sitting up a small amount, so when you compress it it does move down enough to bounce off the ground. Since the ball is compressible (rubbery), it recoils off the ground before recoiling off your clubface, so you get an increased recoil. THAT is what gives you the extra distance, not the grass on the clubface.

So why does moisture cause a similar effect? Well, it doesn't, technically, it just seems like it does. It isn't the moisture on the clubface that is causing it, any more than it is the grass. I don't get flyers in moisture, either. It is just that in wet conditions, the ball will tend to sit up more in the fairway, since the ball is sitting on both water and grass. Your ball tends to sit higher in wet fairways, and that is why. You then get more of a bounce effect when you are hitting down. The water also makes the ground underneath heavier and denser, where it has soaked in, so the ball is bouncing off the water as well as the soil. You might think that would make the ground softer, and in some ways it is. It is softer to a weak strike, like to a little ball landing on a green. But because it has more mass, it is harder to a strong strike, like a club and ball hitting it together at 170mph.

This is why you can get flyers even from new mats, if the ball is sitting up. No grass or moisture is involved there, is it? But those mats can be even harder than turf if you drive down far, as you know if you have done it, despite having a layer of cushion. So they can create a strong rebound under the right conditions. Very few have experienced this because range balls are so dead you wouldn't know if you hit a flyer or not. But those who have experienced new mats at ritzy country clubs with Titleist range balls may know what I am talking about.

You will say that if I am right, you should be able to hit a planned flyer just by using a tee. And indeed you can, but almost nobody does. Why? Because most people who use tees on par threes tee the ball so low it doesn't much matter. They tee it just to be sure it isn't sitting down. And if they tee it any higher, they adjust their swings to NOT hit down so much, nullifying a flyer. Which is why many people, even pros, don't like to tee their irons. The tee encourages them to pick the ball and they don't like to do that. Plus, no one really wants to hit a planned flyer, because that would ruin all your distances. You could hit planned flyers all the time and club down, but what would be the point of that? And you would then have to watch out for non-flyers.

There is also this to consider: those who hit down a lot are *already* hitting partial flyers all the time, compared to me. The normal shot for most people is a partial flyer, since they are using the bounce off the ground to get more distance. That is what compression is all about, and why it was developed

historically. People could see that it gave them greater distance. But a tight lie nullifies that distance gain to some extent, for the reason I just gave you. A ball sitting up in the rough maximizes it, as long as it isn't sitting up so much you can't compress it.