

Some Tips on Breaking

This happens a lot. Someone will go up to the pool table and prepare to break. They set up, rock back and forth, their tongue hangs out one side of their mouth. Their eyes focused on the rack. They wind up, and with all the strength they can muster, they hit the cue ball. The cue ball cracks the rack, the sound almost deafening as balls scatter everywhere. Three or four balls go into pockets and the cue ball flies off the table. What the heck just happened? How come every time you hit the rack this hard and put a couple balls in does the cue ball fly off the table? Let's examine what happens to the cue ball during a break and then look into some solutions.

The break is probably the hardest hit shot during a match. Some people can reach speeds of nearly 30 mph on their break. There is a story out there that during a pro tournament, Johnny Archer was breaking, and during his break, the cue slipped from his hand and travelled 22 ft in the air. Now that's a powerful break. The break is also probably the most important shot of the match so the last thing you want is to scratch or foul. Scratching on the break is like giving your opponent a blank check. One they are sure to cash in on. You put in 2 or three balls and foul, your opponent has ball in hand and now has half as many balls to shoot at. You've just put yourself in a very deep hole. So, what's different about a break shot and a regular shot? The short answer. Besides it being a bigger more powerful stroke. Really, not much. Hmm!!

Here's what is happening during a break shot. First, you are stroking very hard. When you do that you are amplifying all the irregularities in your stroke. There is a tendency to tighten the grip. When you do that you may twist your wrist or pull your grip toward your body. That means the cue stick no longer is going straight through the cue ball. Also, a tightened grip immobilizes your wrist and that doesn't allow your stick to stay level through your stroke. Thus, you top the ball or miscue. On the break, some people use a longer bridge, rock back and forth, or stand a little more erect to engage the shoulder to gain some power and quite often end up elevating the back of their cue. They are now hitting down on the ball. (You are now hitting a jump shot). This causes the cue ball to skip. If the cue ball hits the rack while it's on the bounce it deflects up, and if it isn't a direct hit on the object ball, the cue ball goes off the table. As you can see, there are a lot of things that can go wrong on the break.

As I mentioned before, the mechanics of the break shot are still the same as a regular shot. If you go to a 7 ft valley table, rack all 15 balls, line up anywhere behind the head string, aim for the center of the front ball and shoot a regular center ball hit at 50% power, you will get a nice break. You may not make a ball, and your cue ball may not end up where you want it, but you will scatter the balls all over the table. It's more important to hit the rack solid and control the cue ball than how hard you hit it!!!

Lesson 1. Keep the cue ball on the table. Use a level cue.

If you elevate your stick more than a couple inches over the rail you are hitting down at the cue. This will cause the cue ball to jump. On the break you probably can't see it because the cue is traveling so fast but depending on how hard you hit it, the cue ball will be skipping all the way to the rack. If it hits the rack while it's in the air it will leave the table.

Lesson 2. Try to transfer all the power in the cue ball to the rack.

Here's a rule of thumb, when the cue ball hits the object ball, for every percent off of the center of the object ball you hit, the same amount of power is transferred from the cue ball. For example, hit the head ball head on, 100% of the power in the cue ball is transferred. If you only hit half the ball, only half the power of the cue ball is transferred. If you hit the object ball say at $\frac{3}{4}$ ball, 75% of the power of that cue ball will be transferred but 25% of the power will stay in the cue ball. What good is it to be a great breaker if half of your power is being wasted. Here is your test. Hit the head ball as a stop shot. If the cue ball stops at the head of the rack you have transferred all the power into the rack. If the cue ball moves to the left or right, you haven't hit the head ball square and you have lost some of the power.

Lesson 3. Power does you no good if you can't control the cue ball.

Arguably, the best breaker on the pro circuit is Shane Van Boening. He has been known to practice his break for more than 2 hours a day. If you watch his break it looks like he is putting very little effort into his break. Maybe 60% power. He knows he doesn't have to hit the rack super hard, but he does need to keep control of the cue ball. You can't be totally positive of the outcome of your break. There are too many factors to come into play. Loose rack, magic rack, wooden rack, old balls, dirty balls, mismatched balls, etc. However, you have a pretty good chance to leave that cue ball where you need it. Work at getting a consistent hit on the head ball before you add power. Make sure you use good stroke mechanics.

Someone once accused Tiger Woods of being lucky. That he had an abnormally high rate of making the tougher shots. Tiger said that it wasn't luck. He shot his game in such a way that he always had an opportunity for good things to happen. The same is true in pool. Leaving the cue ball where we can use it leaves us the "opportunity" to have good things happen.

Let's take a minute and talk about good mechanics. A level cue is essential. This by itself will pretty much prevent you from putting the cue off the table. Some people like a longer bridge for the break or even break from the rail. No problem either way. Just remember that your power is maximum when your elbow is at 90 deg. Knowing that the distance between your bridge and your grip is always the same, if you lengthen your bridge, you have to move your grip back also. (Note: Some people line up on the cue ball with their tip 3 to 6 inches behind the ball. If you do this, two things are at risk. First, max power is when your elbow is at 90 deg. If you are 3" behind the cue ball you are going to hit the cue ball 3" beyond your max power position. Maybe even in your deceleration area. Second, with a pendulum stroke, the tip moves up and down throughout the stroke. If you are aiming center ball at 3" away, by the time hit the cue ball you might be 1 or 2 tips above center. Your tip should be less than $\frac{1}{2}$ " away from the cue ball when you begin your stroke.) There should be a pause at the end of your backswing before you start your forward motion. You have two muscles that control this motion. One is to draw the cue back, the other used for pushing the cue forward. There needs to be a transition time between back and forward to prevent these muscles from fighting each other.

Once you start consistently getting good breaks you can start to add more power. Try some draw or top spin to move the cue ball to a different spot. If nothing else remember this, the break is not about the

rack, it's about the cue ball. We don't want to give our opponent ball in-hand and we want to give ourselves an "opportunity" for good things to happen.