Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all past articles are available online at <u>billiards.colostate.edu</u>. Reference numbers used in the articles help you locate the resources on the website.

The jump shot is a very important weapon in the arsenal of a competitive pool player. Having effective jump shot technique can get you out of all sorts of trouble and help you win games. In two recent YouTube videos (NV J.110 and NV L.15), I cover everything you need to know to be an effective jumper. I summarize the important points below.

A jump shot is much easier with a jump cue, which has a hard phenolic tip and is shorter, stiffer, and lighter than a regular playing cue. If you think you have never executed a jump shot before, you are probably wrong because the CB hops anytime you hit it above center or when the back of the cue is elevated to reach over the rails or obstructing balls.

As shown in **Image 1**, a 45° elevation angle and center-ball hit works best for a typical jump shots. If you have never hit a jump shot like this before, the first thing you need to know is you cannot use your normal stance position. If you do, when you try to elevate, you will be leaning forward too much and it will be very difficult to elevate the cue enough, especially if you are not very tall. Instead, as demonstrated in the videos, move everything forward, including the grip hand on the cue, as you elevate. It is helpful if you can keep your arm in the vertical plane of the shot as with a standard underhand stroke. During the stroke, you should use as little effort as possible and keep your head, body, shoulder, and upper arm as still as possible. The jump is a finesse shot, not a power shot, where you keep your grip and wrist relaxed and using a quick throwing motion. Don't be afraid to accelerate into the CB, as if you are trying to throw the cue into the table.



Image 1 Standard underhand stroke

If you are not very tall and it is difficult keeping your stroking arm in the vertical plane, especially at higher cue elevations, an alternative technique is to rotate your arm out to the side as shown in **Image 2**. This sidearm technique is common among the pros since many of them are not very tall and since the sidearm stance is more relaxed, even at very high cue elevations. The sidearm stance is more open, with the feet, body, and head closer to the CB. One downside of a sidearm stroke is your neck needs to twist more to face the shot,

which can cause neck strain and discomfort. Another downside for some people, especially those with weak shoulders, is it might be difficult to hold the arm in that position while generating the type of stroke needed. With the sidearm stroke, it is particularly important to keep your shoulder and elbow still. Any motion in the upper arm will result in terrible tip position and cue alignment accuracy and consistency. However, if you keep your shoulder and elbow relatively still, you can be effective, especially after dedicated practice.

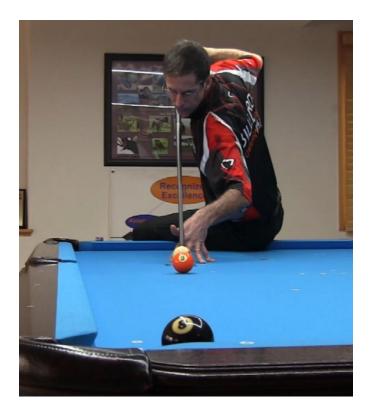


Image 2 Sidearm stroke

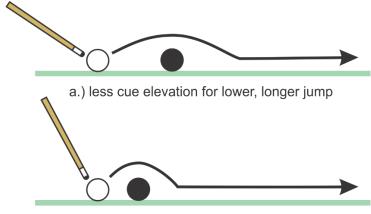
In general, the regular under-hand and sidearm jump strokes are more accurate, but some people find the over-hand "dart stroke" shown in **Image 3** easier to learn. It is also sometimes a better choice, especially when you need to reach for a shot or when you need a highly elevated cue to jump higher or land sooner. The shot in Image 3 is a good example, where because I need to reach out onto the table and where a quick jump and landing are required, the regular stroke can be awkward. If you have a 3-piece jump cue, the "dart stroke" will be easier if you remove the 3rd piece. The term "dart stroke" is used because the grip and stroking motion are very similar to how you hold and throw a dart. The grip consists of your middle finger under the cue, and your thumb and index finger on the sides of the cue. It is best to have all three fingers as close together as possible on the cue. That makes it easy to keep the cue straight during the throwing motion.

As with the regular jump stroke, the dart stroke is a finesse throwing motion with a light grip and wrist. You don't want to move your whole arm. Instead, plant your elbow against your body and use mostly the wrist with just a little forearm motion. Also, you don't want your body too close to the shot. This puts your arm in an awkward and constrained position. Instead, get your body and feet as far back as possible with the grip and cue as far forward in front of you as possible (with the grip just behind the cue's balance point). This makes the dart stroke more natural, just as with throwing a dart.



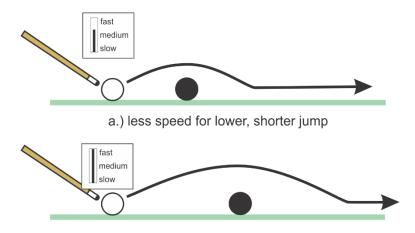
Image 3 Dart stroke

Diagrams 1 and 2 illustrate the effects of cue speed and cue elevation. With more cue elevation, the CB gains height quicker and lands sooner. With more shot speed, the CB jumps longer and higher. When jumping a long distance, you need to be careful to land the CB soon enough. If you don't, the CB or OB can hop off the table, which is a foul, giving your opponent ball in hand.



b.) more cue elevation for higher, shorter jump

Diagram 1 Cue elevation effects



b.) more speed for higher, longer jump

Diagram 2 Speed effects

Online videos NV J.110 and NV L.15 offer lots of useful practice advice to develop and improve your jump shot technique, so be sure to check them out, especially if you have not successfully executed jump shots before. Give all three stroke types a try and put in enough practice to determine which might be more comfortable, accurate, and consistent for you in different situations. Obviously, you need to choose the techniques that work best for you as an individual, regardless of what most pros might do. What pros do isn't always the best approach for all individuals. Any of the 3 stroke types can be mastered with enough practice; although, as discussed and demonstrated in the videos, each has advantages and disadvantages in different situations. But the sidearm stroke is the most versatile, working well over a wide range of cue elevations and reaches. Just remember: Whichever stroke type you use, be sure to stay relaxed and keep your shoulder and elbow as still as possible during the stroke.

Good luck with your game from Dr. Dave!



NV J.110 – JUMP SHOT in Pool ... Everything You Need to Know NV L.15 – JUMP SHOT Stance, Bridge, and Stroke Variations Useful to Know

PS:

• I know other authors and I tend to use lots of terminology, and I know not all readers are totally familiar with these terms. If you ever come across a word or phrase you do not fully understand, please refer to the online glossary at *billiards.colostate.edu*.

Dr. Dave is a PBIA Master Instructor, Dean of the Billiard University, and author of the book: <u>The Illustrated Principles of Pool and Billiards</u> and numerous instructional DVD series, all available at: <u>DrDaveBilliards.com</u>.