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

When you miss pool shots, do you sometimes wonder why you missed? You should, because that's how we improve ... by diagnosing mistakes and trying to prevent them in the future. Or do you want a bunch of excuses you can use when you miss shots? Either way, this article is for you. It summarizes a video I posted recently ([NV J.99](#)) that covers the top 10 reasons people miss shots, along with things you can do to help prevent the mistakes.

1. Lack of Focus

Sometimes we just don't focus, often by not using a consistent and purposeful pre-shot-routine. Instead, plan the shot completely, aim carefully while standing, drop straight down into your stance, trust the aim when you are down, use good stroke fundamentals, and stay down and still on the shot. Give every shot the respect and focus it deserves, especially the “easy” shots, assuming you want to miss less and win more games.

2. Poor Shot Choice

Sometimes we make bad shot choices like using too much speed and rattling the pocket or deciding to bank a ball when a cut has a much larger margin for error. Sometimes the bad choice is related to equipment. For example, if a table might roll off due to non-levelness or dirty cloth or an unbalanced cue ball (CB), you don't want to slow-roll the ball. As with every topic in this article, online video [NV J.99](#) demonstrates many interesting examples.

3. Bad Position

Sometimes we miss because we got bad shape from the previous shot. You can dramatically improve your CB control and reduce misses due to poor shape, or scratches, by knowing basic CB control principles including the 90° rule tangent line, the 30° rule natural angle, and the draw-shot 3-times-the-angle system. See online video [NV J.27](#) if you want to learn more about these useful principles.

Poor speed control can also lead to bad position and misses. Many players try to control shot speed using a full stroke. Your speed control can be much better if you instead change the stroke length for different shot speeds. This lets you use the same smoothly accelerating stroke style for every shot. It is just like putting and chipping in golf. The length of the backstroke determines the ball travel distance.

Another reason people sometimes play poor position is not leaving angles on shots or coming across the line of the next shot. **Image 1** shows a good example from the video. If you follow the CB off the side cushion and go across the narrow part of the shape zone for the 8, there is a very small margin for error with shot speed. But if you instead come into the line of the shot as shown, you get a good look at the 8 over a wide range of shot speeds. Smart choices like this can help prevent many misses.

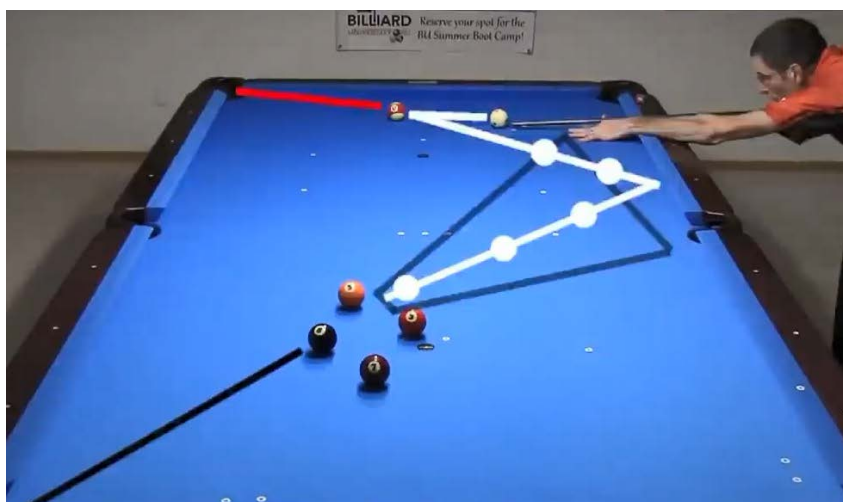


Image 1 Coming into the line of the shot

4. Bad Aim

Often, we miss shots simply because we just aim wrong. Probably the most common cause for this is not aiming properly while standing. Visualizing the shot and aiming carefully while standing is the best “aiming system” there is (see **Image 2**).



Image 2 Aiming while standing

Sometime our aim is bad because we have poor or inconsistent visual alignment. It is very important to find and know your personal “vision center” position. Only when your head is in this individually unique position will you perceive the line of a shot correctly. Another aim-related cause for misses is not compensating for cut-induced throw. As with every topic in this article, see the links in the YouTube video description of [NV J.99](#) if you want to learn more.

5. Bad Stroke

There are many common stroke issues that cause misses including tightening your grip during a shot, rushing the backstroke or the transition to the forward stroke, and dropping your elbow during the stroke into the CB. Instead, pull back slowly and accelerate forward smoothly while keeping your grip relaxed and your shoulder and elbow still. Another common stroke flaw is moving the head and body during the shot. With your head and body still, you will have much better and more consistent results. I like to tell students to be a “relaxed statue” during and after the shot (see **Image 3**).



Image 3 Relaxed statue

6. Poor Eye Pattern

Sometimes people miss shots due to a poor eye pattern, which is what you do with your eyes as you aim and prepare to shoot a shot. You want to be sure to intently focus on the things important to making the shot like the object ball (OB) target as you drop down into your stance and the tip position and cue alignment, slowly moving your eyes back and forth between the CB and OB with the cue still. Then lock your eyes on the OB target with intense “laser” focus before the final stroke (see **Image 4**).



Image 4 Laser focus

7. Elevated Cue

Another common cause for misses is having the back of the cue elevated. With a hit even slightly off center, the CB will swerve causing a miss. If you always keep the cue as level as possible, you will be much less likely to miss shots.

8. Poor Sidespin Choices

A big cause for misses is not compensating your aim properly when using sidespin. When you hit the CB off center, it does not go straight. It squirts off to the side and the CB's path swerves. The net effect of this is called CB deflection, which varies with shot speed and distance and the amount and type of spin. This is a common cause for misses when using sidespin, whether the sidespin is intentional or not. Also, some players use sidespin when it is not required, which just adds unnecessary risk for missing. Sometimes they wrongly think sidespin is needed to change CB direction off the OB, but this is simply wrong. Sidespin is usually required only when you want to change the rebound angle off a cushion.

9. Mental Errors

Sometimes, we miss shots due to mental errors. For example, if you have doubt when down on the shot about your aim or whether you might scratch, the results can be bad. If you have any doubts, don't just "Hit it Anyway." Instead, you should get up and restart your pre-shot routine to carefully plan the shot, aim while standing, clear your mind, and execute with confidence.

Another common mental error is focusing too much on shape for the next shot and not enough on pocketing the ball. It does not help to get perfect shape if you miss the shot. Instead, always keep your focus on pocketing the ball, trusting that your shot plan will give the desired CB position.

10. Other Reasons

There are many other things that cause us to miss shots. They include having a sloppy or moving bridge, not chalking the tip properly, excessive throw due to cling/skid/kick, poor eyesight with no vision correction glasses or contacts, getting sharked by your opponent, faulty or poor-quality equipment, etc. You can always come up with "excuses" for missing shots, but most of them are preventable.

Be sure to check out online video [NV J.99](#) to see demonstrations and examples of everything described in this article. And see the links in the YouTube video description if you want to learn more about any of the individual topics. And if you want to see proof that even pros miss on occasion, and sometimes badly and for no apparent reason, watch the beginning of online video [NV J.90](#), where you can see some classic and shocking pro misses. Sometimes it can be consoling to see pros miss easy shots occasionally. It reminds us they are human; and it makes us mere mortals feel less worse about some of our misses.

Good luck with your game,
Dr. Dave



[NV J.27](#) – CUE BALL CONTROL ... Everything You Need to Know

[NV J.90](#) – Top 10 WILD and CRAZY POOL SHOTS of All Time

[NV J.99](#) – Top 10 Reasons for Missing ... and How to Prevent It

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