
Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at billiards.colostate.edu. The reference numbers used in the articles help you locate the resources on the website.

The pool world has been rife with myths and misconceptions throughout its sordid history. Fortunately, with the wealth of excellent instructional books and videos and online resource now available, much of the misinformation has been solidly debunked. However, some preconceptions and wrong assumptions are hard to break in some people ... especially pool “Old Timers” and the individuals they influence with their constant spewing of pool mythology.

This month, I am beginning a Pool Myth Buster series by listing my Top 100 List of Pool and Billiards Myths. And over the next few months, I’ll pick some of the most entrenched pool myths and do my best to debunk, bust, and explain them in detail. For now, here’s my categorized list, starting with the top 50 in the categories of equipment, fundamentals, stroke, aiming, cue ball control, follow and draw, and english (sidespin). Next month, I’ll list the second 50 in the categories of english (sidespin), squirt (cue ball deflection), bank and kick shots, throw and spin transfer, break shot, jump and masse shots, fouls, pool physics, and general advice.

The list contains links to supporting resource pages referenced by the parenthetical “see” items in the explanations below. All of the resources are available in the FAQ section at billiards.colostate.edu.

Dr. Dave’s Top 100 Pool and Billiards Myths ... Debunked, Busted and Explained

Equipment

1. The brand of chalk you use makes a big difference in play.

This is really not the case, assuming you chalk properly before each off-center hit (see [chalk brand comparison](#)).

2. Pre-flag Master chalk is better than flag Master chalk.

Careful tests show that this is not the case (see [chalk brand comparison](#) and [pre-flag vs. flag Master chalk](#)).

3. Softer tips allow you to put more spin on the ball.

This is true only if the softer tip holds chalk better than the tip to which it is being compared (see [cue tip hardness effects](#)).

4. Low-cue-ball-deflection (LD) shafts allow you to put more spin on the ball.

This is not the case (see [getting more spin with an LD shaft](#)).

5. A smaller-diameter shaft/tip allow you to put more spin on the ball.

It might seem like this to a player, but there are logical reasons to explain this false belief (see [cue tip size and shape effects](#)).

6. LD shafts are better than non-LD shafts.

This is not true in general for all people (see [advantages and disadvantages of LD shafts](#)).

7. When you switch from a regular non-LD shaft to an LD shaft, you won't need to change the way you play.

This might be true in general; but when applying sidespin, you will need to aim differently to account for the difference in [CB deflection \(squirt\)](#).

8. Cue "feel" and "feedback" affect how it plays.

The sound and vibration created by a hit definitely affect how a cue "feels," but the "feel" has no direct effect on how the cue "plays" (see [cue "feel," "hit," "feedback," and "playability"](#)).

9. When you miscue, it is the tip's fault.

A miscue is usually caused by poor [stroke technique](#) (e.g., grip tightening and/or elbow drop before CB contact).

10. It's the arrow, not the Indian.

A good player can play well with any cue (assuming it is mechanically sound and has a decent tip). Furthermore, a great cue will not truly help a bad player play better (although, there could be psychological effects resulting in slight improvements if a player thinks they should play better with a better cue). Now, an LD shaft does offer [advantages](#) to some people (although, they also have [disadvantages](#) for some people). One advantage is that less aim compensation for squirt is required with an LD shaft. However, a "bad player" typically doesn't use english much, not intentionally anyway. And when they use english unintentionally (e.g., with a swooping stroke), or if they are using [back-hand english](#) (either with a pre-stroke pivot or with a swooping stroke), an LD shaft is better only if they use a long bridge length. If a player prefers a short bridge length, the advantages an LD shaft offers is limited. Now, if the "bad player" attempts to use "parallel english" and doesn't compensate aim for squirt, then the LD shaft will offer an advantage; although, he or she will still miss many (if not most) shots in this situation.

Fundamentals

11. There is a "proper" or "conventional" stance that is most effective for most people.

The ideal stance for each individual (feet positions and directions, knee bend, body bend and direction, head height and position, arm position relative to the body, etc.) can be very different from one person to the next based on stability, comfort, anatomy, and stroke clearance requirements (see [stance technique advice](#)).

12. A closed bridge is better than an open bridge.

This might be true for some people and some shots, especially if one has stroke flaws, but it is not true in general (see [open bridge vs. close bridge](#)).

13. It's always best to look at the OB last before the final stroke.

Most people are most accurate and consistent if they focus on the OB target (and not the CB) during the final forward stroke (see [eye pattern advice](#)). One exception is elevated-cue shots or other situations where tip position on the CB is critical (see the [stroke "best practices" document](#)).

14. When checking your aim, it is best to move your eyes quickly between the CB and OB.

On the contrary, your eyes should be still and quiet when checking aim and alignment (see [quiet eyes](#) and [reasons for pauses](#)).

15. Determining which eye might be "dominant" or not is important.

This is not true (see [dominant eye](#)). What is important is finding and consistently aligning your personal "vision center" over the line of the shot (see [vision center](#)).

16. A tighter grip is better on power shots.

A tight grip will actually usually decrease power. The grip should generally be relaxed during the entire stroke, regardless of the power of the shot (see [grip technique advice](#)).

17. Many misses are caused by "jumping up" on the shot.

Raising the body during the stroke into the ball is most definitely a no-no. However, most good players stay down during the stroke fairly well. Regardless, they often jump up as soon as they realize they hit a shot badly, and most good players know if a shot is good or not immediately after the hit. Therefore, when a commentator drops the cliché line: "He missed because he jumped up on the shot," the commentator is usually wrong. Usually, a more accurate description is: "He jumped up because he missed the shot."

18. Most misses are caused by a bad stroke.

For intermediate to advanced players, most misses are probably due to aim and alignment errors rather than stroking errors. "Alignment" involves both placing the cue in the desired direction and placing the tip at the desired position on the CB. Also, when using intentional sidespin, many misses are due to an incomplete understanding of how to accurately compensate for squirt, swerve, and throw. (see [aim compensation for squirt, swerve, and throw](#)).

Stroke

19. Adding a pause at the back of your stroke is bad.

What is worse is jerking the transition between the back and forward strokes (see [stroke technique advice](#) and [reasons for pausing](#)).

20. The cue should move along a straight line during the entire stroke with a piston-like motion.

Actually, a pendulum stroke, where the elbow does not drop and the follow through is not exaggerated, can be more effective for most people and most shots (see [pendulum vs. piston stroke](#) and [elbow drop](#)).

21. The "type" and "quality" of stroke makes a difference in the outcome of a shot.

The only things the CB "cares" about is the hit, not the stroke technique leading to the hit (see ["type" or "quality" of stroke](#)).

22. "Accelerate through the ball" is bad advice because it is not possible physically.

It is true that the cue cannot be accelerated during a hit (because it actually slows down significantly during a hit, per the [stroke acceleration resource page](#)), but thinking this ("accelerate through the ball") can be useful advice to encourage people to not be hesitant, to finish the stroke, and to create more speed into the ball (e.g., with draw shots).

23. The cue is and should be "level" on most pool shots.

With most pool shots, where the cue must clear the rails, it is impossible for the cue to be truly level ... the butt must be elevated at least a small amount. Regardless, in general, it is best to keep the cue as level as possible to minimize CB swerve (see [cue elevation effects](#)).

24. Follow through puts more spin on the CB.

This is not true. The follow through is often a good indicator of a good stroke, but it has no direct effect on the outcome of the shot (see [follow through](#)).

25. Dropping the elbow after CB contact makes a difference.

Dropping the elbow after the hit might feel right and be more comfortable for some people, but it doesn't really offer any direct advantages. (see [elbow drop](#)).

Aiming

26. "Aiming systems" are not helpful.

For some people, an "aiming system" can be very helpful (see [benefits of aiming systems](#)).

27. Pros have a secret "aiming system."

This is simply not true. There is no silver-bullet "aiming system" that will magically allow you to pocket shots with pro-level consistency. Pros aim virtually all shots subconsciously by instinct, intuition, and feel based on countless past hours of practice and successful experience (see ["How the Pros Aim"](#)). They typically do not use any particular prescribed "[aiming system](#)." Although, they do usually have a consistent and purposeful [pre-shot routine](#) to help ensure they aim and align accurately and consistently. The only way to truly improve your aiming accuracy and consistency is through dedicated and smart practice. Success comes from having a consistent and purposeful pre-shot routine, a reliable and accurate stroke, and a long history of experience.

28. The only way to learn to aim is to play 10,000 hours or "hit a million balls."

It can certainly help to practice a lot and gain lots of experience, but an understanding of [aiming principles](#), having a consistent and purposeful [pre-shot routine](#), and knowing how to [adjust aim when using english](#) can certainly speed the learning process.

29. The best place to aim at a pocket is always the center between the pocket points.

The effective "center" of the pocket changes with speed and angle (see [pocket "size" and "center"](#)). Also, sometimes the pocket needs to be "cheated" (with the OB aimed away from the center of the pocket) for CB control purposes.

30. Bridge length and shot distance have no effect on pivot-based aiming systems.

Unfortunately, that is not true (see [pivot-based aiming system issues](#) and [CTE analysis and evaluation](#)).

31. Aiming systems that use a limited number of lines of aim or aiming alignments can be used to pocket shots over a wide range of cut angles without adjusting by intuition or "feel" (either consciously or subconsciously) between the references.

Unfortunately, this is simply not true (see [limited lines or alignment of aim](#) and [CTE analysis and evaluation](#)). Regardless, an "aiming system" can still be a valuable addition to a person's game, especially if they don't already have a consistent and purposeful [pre-shot routine](#). An "aiming system" can help encourage a person to actually aim while standing, before they get down on a shot, which is important. There are also other [potential benefits of "aiming systems."](#)

32. Marketing information and claims concerning "aiming systems" are usually modest and totally realistic.

Unfortunately, "aiming systems" promotion sometimes involves exaggerated "marketing claims" (e.g., see the [DAM marketing spoof](#)).

Cue Ball Control

33. Center-of-table position is good for most shots.

This is simply not true. Center-table position is adequate for many shots; but for many others, the center of the table is a terrible place to be.

34. The CB always heads in the tangent-line direction.

The CB heads and persists along the tangent-line direction only for a stun shot (see the [90 degree rule](#)). For shots with top or bottom spin, the CB initially heads in the tangent-line direction, but it curves away (see the [30 degree rule](#) and the [draw-shot trisect system](#)); and at slow speed, it curves almost immediately (see [CB path speed effects](#)) to where the tangent-line motion isn't even noticeable.

35. On a lag shot, the best place to hit the CB is dead center.

Not true. The optimal speed-control tip height is 20% of the ball radius above center (see [lag shot](#)).

36. It is always best to leave yourself with an easy, nearly straight-in, shot.

This is true for the last shot in a game, but it is certainly not true in general. Contrary to what many people think, a straight shot is much easier to hit accurately and consistently than a shot at an angle (see [straight-in shots](#)). However, your position-control options are severely limited when a shot is nearly straight in (see [cue ball position control](#)).

Follow and Draw Shots

37. If you elevate the cue, you get more draw.

To get tighter-angle draw, cue elevation is required (see [quick draw](#)); however, for maximum draw distance with a mostly straight shot, keeping the cue as level as possible is better (see [draw shot cue elevation effects](#)).

38. A closed bridge is better for draw shots.

This might be true for some people due to stroke flaws, but on open bridge can actually offer significant advantages (see [open vs. closed bridge](#)).

39. To get maximum draw, hit as close to the miscue limit as possible.

It is too risky to hit too close to the miscue limit, and less draw can result, especially with power draw shots (see [power draw technique advice](#)).

40. Draw is tougher on slick cloth because the backspin doesn't "bite" as much.

It can be more difficult to draw the CB back at a tight angle; but with a nearly straight shot, draw is much easier on a slicker cloth (see [cloth effects](#)).

41. If you have trouble with draw shots, there is something wrong with the cue, tip, cloth, or CB.

Difficulty with draw is almost always due to poor technique. You must keep your grip relaxed, keep your cue as level as possible or appropriate, and accelerate smoothly into the ball (see [draw shot technique advice](#)).

42. Draw shot control is better with less tip offset and more speed.

Actually, the opposite is true. In general, for best draw distance control, use more spin with less speed (see [physics-based draw shot advice](#)).

43. Draw shots are more accurate than follow shots.

This is definitely not true in general (see [follow shot accuracy](#)).

44. Force-follow shots require an overspin hit on the CB.

That's not true. In fact, it is extremely difficult to create overspin off the tip (see [natural roll, maximum offset, and overspin](#)).

English (sidespin)

45. The only way to learn how to use english effectively is through experience.

Practicing many different types of shots many times can certainly be helpful; however, knowing some basic systems for using english like [BHE and FHE](#), and learning about [squirt, swerve, and throw effects](#), can dramatically speed the learning process and help one use english effectively sooner than they might otherwise.

46. More english can be applied with a swooping stroke.

A swooping stroke might help some people apply english more effectively, but a swoop is certainly not required to get maximum sidespin (see [stroke swoop](#)).

47. English is not required often in top-level play.

This is a common misconception; but in reality, top players use sidespin (often only in small amounts) frequently in their games (e.g., to make small corrections when they get out of line, to help the CB come more into the line of the next shot, to send the CB multiple rails with ease and in natural directions, to help pocket steep rail cut shots, to change the angle of a kick, to throw a ball in, to curve the CB slightly, etc.).

48. Sidespin affects the path the CB takes off the OB.

This is not true for a stunned CB, and the effect is small with topspin and bottom-spin shots (see [30-degree and 90-degree rule sidespin effects](#)). Generally, sidespin has a significant effect only when the CB hits a cushion (where the rebound angle is changed). Throw shots are an exception (see throw "hold" and "kill" shots).

49. With frozen rail cut shots, always use a cushion-first hit with running english.

This can make steep-angle rail-cut shots much easier to pocket, but it is not necessary or even helpful at small-angle shots. Also, whether you go ball-first or cushion-first with sidespin on rail cut shots can make a big difference in CB control, and sometimes outside english is required to create desired CB motion (see [rail cut shots](#)).

50. To get the largest rebound-angle change off a cushion, hit the CB on the horizontal centerline (to the extreme left or right of center).

Actually, a drag shot resulting from a below-center hit with sidespin can be used to get a larger sidespin effects off a cushion (see [maximum sidespin effect](#)).

... to be continued ...

Stay tuned next month for the remainder of the list. For those who are really interested in this topic and want to explore more or look ahead on your own, I have the complete list of 100 myths with links to supporting resources available at billiards.colostate.edu/pool_myths.html. Enjoy!

Good luck with your game,
Dr. Dave

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 don't fully understand, please refer to the [online glossary](#) at billiards.colostate.edu.

Dr. Dave is a PBIA Advanced Instructor and author of [The Illustrated Principles of Pool and Billiards](#) book and DVD, the Video Encyclopedias of [Pool Shots \(VEPS\)](#), [Pool Practice \(VEPP\)](#) and [Eight Ball \(VEEB\)](#), and the [How to Aim Pool Shots \(HAPS\)](#) and [Billiard University \(BU\)](#) instructional DVD series, all available at: DrDaveBilliards.com.