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

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There are many important pool fundamentals. You need to have a consistent and purposeful pre-shot routine. You need to be able to visualize and aim shots accurately. And you need to have a reliable and consistent stroke. But probably one of the most important fundamentals is having your head in the right place. Every person has a unique head position, relative to the cue, that allows that person to visualize the line of a shot correctly. This is called the “vision center” position. For many people, the vision center is with the cue under the nose, right between the eyes. For some, it might be with the cue directly under one eye. And for others, it will be somewhere between or even outside of the eyes. And the vision center position is not always correlated with which eye might be dominant or not. For example, I am right-eye dominant, but my ideal vision center position is with the cue perfectly centered between my eyes (see **Image 1**). If your head is not in the right place, you will have trouble aiming, and you miss lots of shots. In recent online video [NV J.133](#), I demonstrate a new and simple way to find your personal “vision center” quickly and accurately. I’ll illustrate and summarize the important steps in this article.



**Image 1** Dr. Dave’s “vision center” position

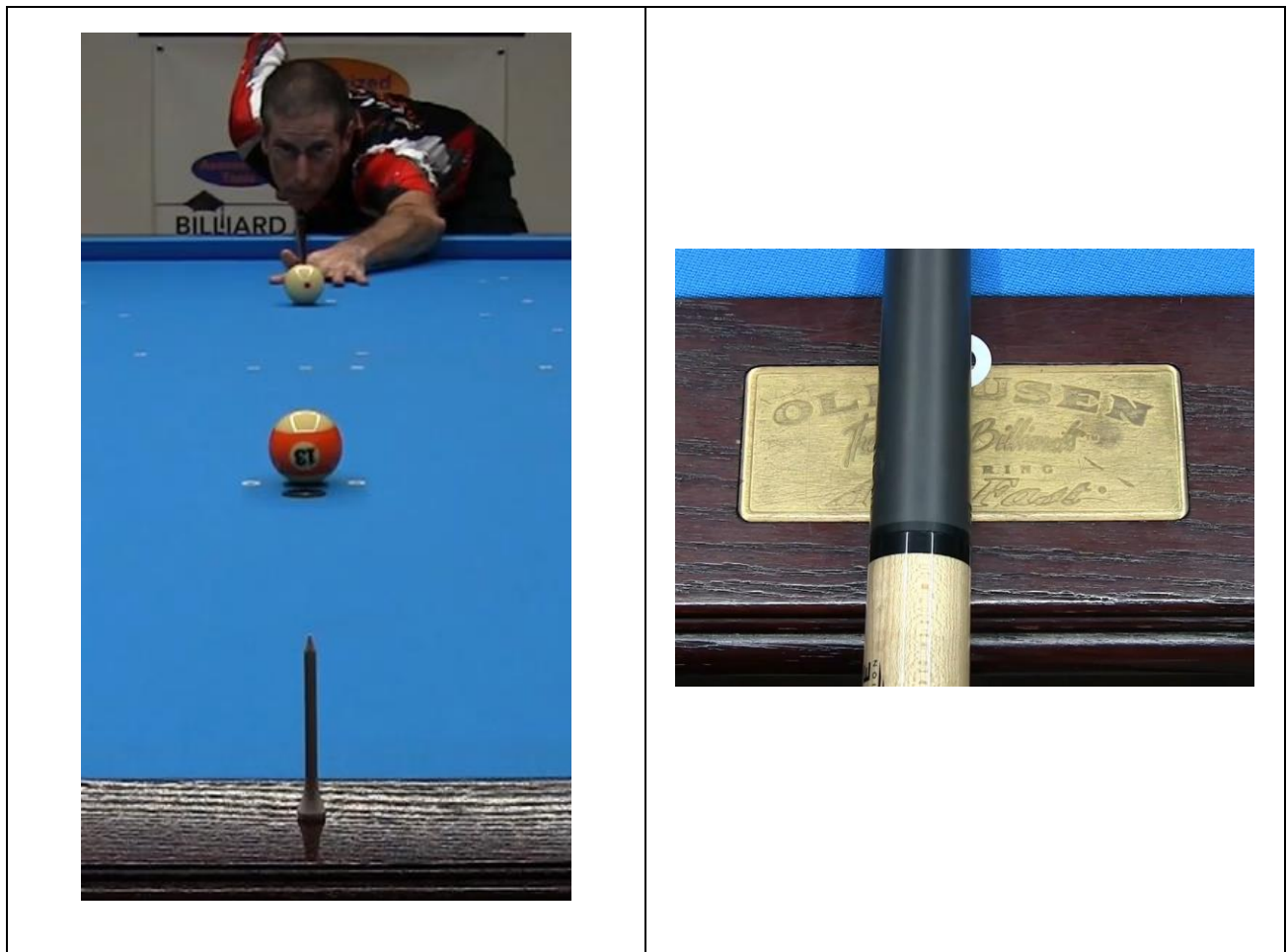
As shown in **Image 2**, first set up the cue ball (CB) and an object ball (OB) along a straight line in the center of the table. Make sure you align the balls with the diamonds very carefully if you want to get accurate vision center results. If the head spot and foot spot are clearly and accurately marked, you can use those positions, but sometimes they don’t line up with the rail diamonds perfectly. If not, you can use a laser level to help. In **Image 2**, I have the laser level over the middle diamond on the foot rail pointing straight to the middle of the head rail. If your table has a name plate instead of a diamond on the rail, you can use a piece of chalk to help you see the laser line so you can place a donut at the center of the plate. As demonstrated in the video, use adhesive donuts to mark the CB and OB positions.



**Image 2** Ball setup

If you don't have a laser level, don't despair. You can be just as accurate using your eyes, using two extra balls frozen to the head and foot cushions in the center of the table. As demonstrated in the video, just close one eye and get down low to look over the tops of the balls. If a ball is off the line, you will be able to clearly see it. Just nudge the ball positions until they all appear to be in a straight line.

**Image 3** shows how you can check to see if your current head alignment is accurate or not. Just aim the CB as accurately as you can for a straight stop shot (see Image 3a). It might help to place another OB frozen to the cushion or put a golf tee on the rail diamond to make it even easier to see the straight line of the shot. If your head is in the correct position and if you aim very carefully, the cue should be directly over the donut or diamond on the rail. If you glance down with your eyes only (keeping your head still), you might see something like Image 3b. Again, if your cue is not directly over the donut or diamond, your head is not in your ideal personal vision center position.



a) aim

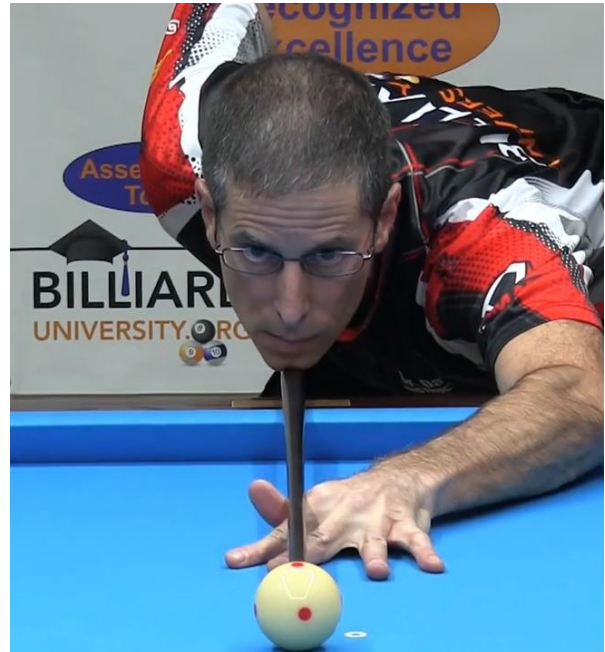
b) verify

### Image 3 Check your vision center

If your vision center is off, here is how you can find your correct head position relative to the cue. As shown in **Image 4a**, glance down with your eyes and position the cue over the donut or diamond. Because the balls were positioned carefully, we know this is the correct line of aim. Keeping the cue still with slight pressure down into the rail at the donut, and with the tip centered on the CB, move your head, shoulders, and side to side while maintaining your face orientation. The aim will look bad in one direction when you go far to the right, and it will look bad in the other direction when you go far to the left. As demonstrated in the video, move your head back and forth looking for the position at which the shot aim looks perfect. Move smaller and smaller amounts until you settle on what looks like the best picture of the shot. At this point, your head will be in your personal vision center position. Glance down with your eyes so you can see where the cue is relative to your nose and eyes. Remember how this looks, so you can check yourself periodically when down in your stance when practicing or playing. Or if you get low in your stance like me, you can just remember where the cue touches your chin (see Image 4b). That's one benefit of a low stance, being able to ensure accurate vision center alignment with a chin touch. I touch my chin to the cue before every shot as part of my pre-shot routine.



a) check



b) find

#### Image 4 Find your vision center

The good thing about this new method for finding your vision center is you are in your natural shooting position, addressing a CB and aiming at an OB, with your grip, cue, and hand bridge all in place. Also, you don't need to shoot a single shot. That's important because sometimes misses are caused by a bad stroke and not bad aim or visual alignment. If you want to test and improve your stroke, see the videos and info on the [stroke "best practices" FAQ resource page](https://billiards.colostate.edu) at [billiards.colostate.edu](https://billiards.colostate.edu). If you trust your stroke, online video [NV J.133](https://billiards.colostate.edu) shows several useful shooting drills to test both your vision center alignment and stroke straightness.

I hope the info here and in the online video helps you find your ideal personal vision center position. And I hope this helps you be more effective with aiming and shot making. For more info and help, see the [vision center FAQ resource page](https://billiards.colostate.edu) at [billiards.colostate.edu](https://billiards.colostate.edu).

Good luck with your game,  
Dr. Dave



[NV J.133](https://billiards.colostate.edu) – AIM MORE ACCURATELY by Finding Your Ideal Personal VISION CENTER

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](https://billiards.colostate.edu) at [billiards.colostate.edu](https://billiards.colostate.edu).

*Dr. Dave is a PBI Master Instructor, Dean of the Billiard University, and author of the book: [The Illustrated Principles of Pool and Billiards](https://billiards.colostate.edu) and numerous instructional DVD series, all available at: [DrDaveBilliards.com](https://DrDaveBilliards.com).*