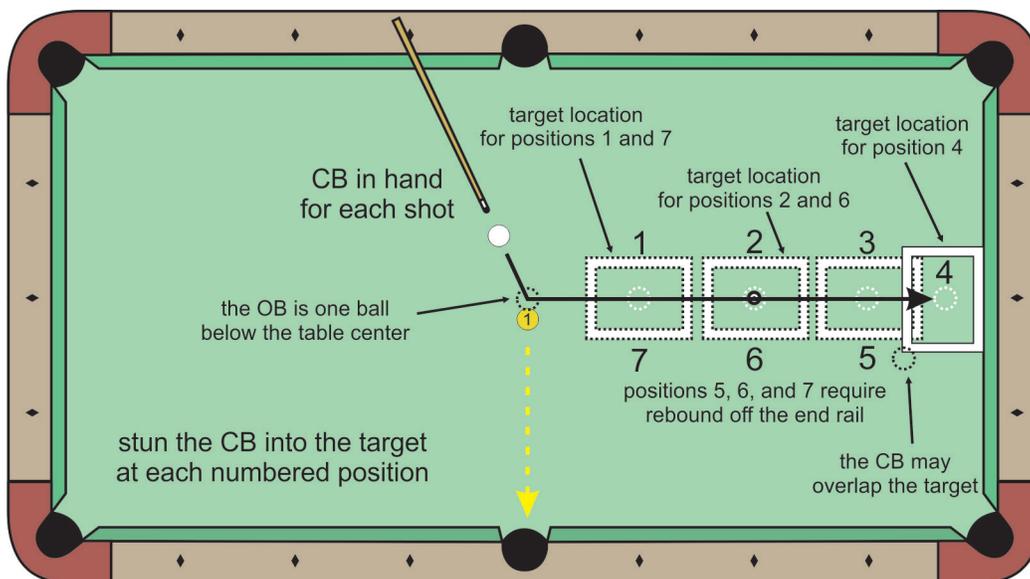


Supporting narrated video (NV) demonstrations, high-speed video (HSV) clips, technical proofs (TP), and all of my past articles can be accessed and viewed online at [billiards.colostate.edu](http://billiards.colostate.edu). The reference numbers used in the articles help you locate the resources on the website. If you have a slow or inconvenient Internet connection, you might want to view the resources from a CD-ROM or DVD. Details can be found online at: [dr-dave-billiards.com](http://dr-dave-billiards.com).

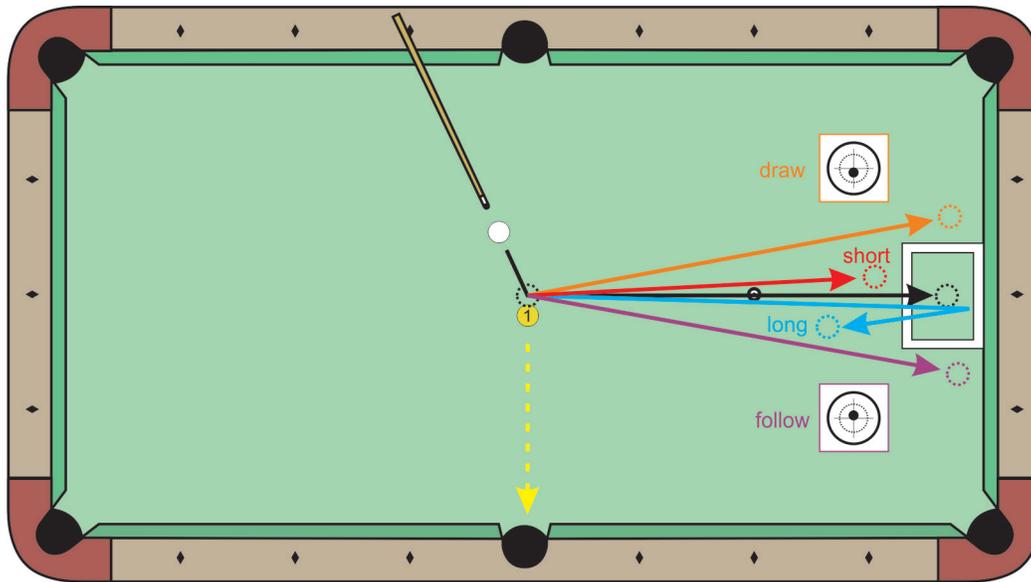
This is the fifth in a series of articles dealing with the Billiard University (BU). The mission of the BU is to provide assessment tools, a rating system, and learning resources to help pool players strive for and achieve excellence, and to officially acknowledge excellence through the awarding of diplomas (Bachelors, Masters, or Doctorate of Pool). The BU was cofounded by me and Randy Russell, with support from the following “dream team” of well-known and respected instructors and instructional authors: Jerry Briesath, Mark Finkelstein, Randy Goettlicher, Bob Jewett, Mike Page, Tom Simpson, and Mark Wilson. Online videos **NV D.1-D.6** explain every step of the BU process and demonstrate the BU playing-ability exams, which are available for free on the BU website: [BilliardUniversity.org](http://BilliardUniversity.org). **NV D.7-D.14** include excerpts from the 3-DVD BU Instructional series that provides advice for improving your fundamentals, teaches useful aiming systems for various types of shots, and offers “hot tips” for how to do well on the exams. In the last few months, we’ve looked at the BU exams and how to determine your player and table ratings. Over the next few months, I’ll cover some “hot tips” and useful advice from the BU instructional DVD series. This month’s topic is the stun-shot drill from Exam I.

**Diagram 1** illustrates drill F5 from the BU Fundamentals Exam (Exam I), which deals with stun and speed control. The goal is to pocket the object ball (OB) and have the cue ball (CB) take a direct path to and end up within or overlapping the rectangular target in its current position. The target is an 8.5x11” sheet of paper with the center cut out leaving a 1” border. Like other drills in Exam I, this drill is progressive, meaning the difficulty level increases with each shot success. Unlike with the other progressive-practice drills in Exam I, where the CB moves to increase shot difficulty, here the target is moved instead (to the next higher position after each success and the next lower position after each miss). For the first shot, the target is in position 4 up against the end cushion and turned sideways. In all of the other positions, the target is aligned with the long axis of the table. Positions 5, 6, and 7 require that you rebound the CB off the end cushion first. You can place the CB wherever you want for each shot. As with the other progressive-practice drills, you get ten shots, and your score for the drill is the target position after the last shot plus any bonus points earned during the drill for successes at target position 7.



**Diagram 1 F5 – Stun-shot drill**

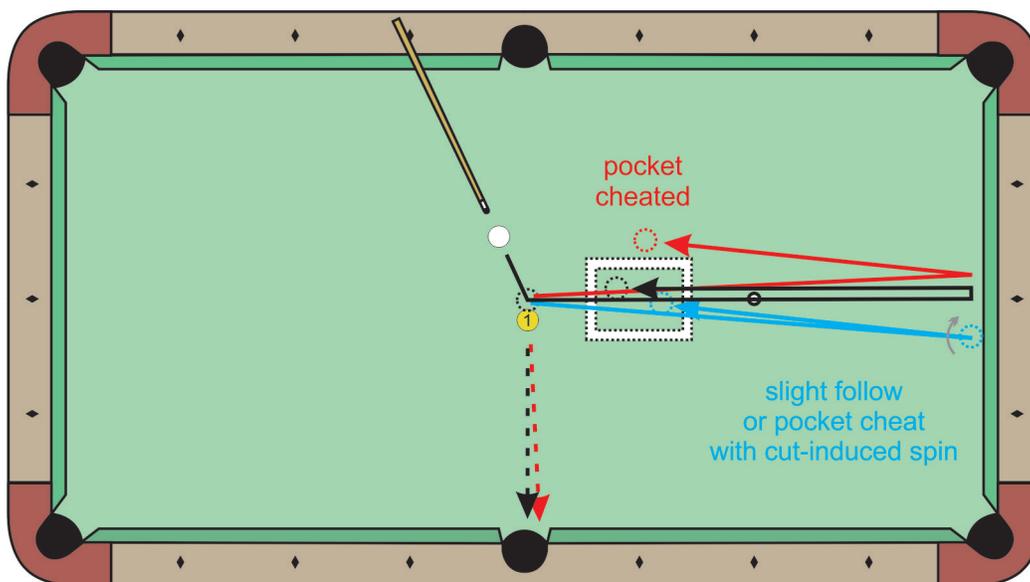
This drill can be challenging because you need to aim accurately, be able to create near perfect stun, and have good speed control. First of all, you need to aim the shot carefully because if you don't pocket the OB the shot counts as miss. But even if you pocket the OB in the center of the pocket, several things can go wrong, as illustrated in **Diagram 2**. If your speed is off, you can come up short of the target (see the red path) or go long (see the blue path). Also, if the CB doesn't have stun (i.e., sliding with no topspin or bottom spin) when it reaches the OB, the CB won't head down the tangent line to the target center. If the CB has slight topspin instead, it can follow forward of the target (see the purple path); and if the CB has slight backspin, it can draw back from the target (see the orange path).



**Diagram 2** Possible errors

To help ensure the CB has stun when it reaches the OB, make sure you keep your elbow as still as possible during the stroke into the CB and keep your grip relaxed so the tip will hit the CB where you are aiming. Also, it is easier to control CB stun if you place the CB fairly close to the OB. Remember, you have ball in hand for this drill. With the CB close, you can use a near center-ball hit, which is easy to visualize. **NV D.8** offers additional advice and hot tips for improving your performance both on the drill and with shots in game situations where you need to send the CB in the tangent-line direction with controlled speed. Watch the video the next time you're online.

**Diagram 3** illustrates some other important effects. If you cheat the pocket by accident, the tangent-line direction will no longer head straight up table (see the red path). This might cause the CB to go wide of the target, especially for the higher-number target positions, where the CB rebounds off the cushion. Also, with any cut shot, the CB picks up a little sidespin from the collision with the OB. This is called cut-induced spin (CIS). For detailed info and demonstrations of CIS and other spin-transfer effects, see the ["spin transfer" page](#) in the FAQ section in my website. For the cut to the right in Diagram 3, the CB picks up a little left (or clockwise) spin. On a slow and "sticky" cloth, the spin wears off fairly quickly as the CB travels to the end rail, and the rebound off the cushion might be true (with no angle change due to spin). But if you play on fast and slick cloth, some spin will be retained on the way to the cushion, especially with the faster speeds required for target positions 6 and 7. In this case, instead of going in the natural rebound direction, the left spin will cause the CB to rebound to the left of the natural direction. One approach to dealing with CIS is to cheat the pocket to the right a little, or allow the CB to develop a touch of topspin so it goes forward slightly (see the blue path). The induced left spin will change the rebound angle and bring the CB back to the target off the end cushion. Another option is to use a touch of inside english, in this case slight right spin, to counteract the effect of the CIS. In this case the CB won't have any net sidespin off the OB and will rebound true (see the black path). You will need to experiment to find out what works best for you with the equipment on which you are playing.



**Diagram 3 Other effects**

For more information and demonstrations, see online videos **NV D.4** and **D.8**. They show example run-throughs of the drill, explain how to score, and provide a lot more advice and hot tips for success.

If you haven't taken the BU playing-ability and rating exams yet, give them a try. Everything you need to prepare for and take the exams is available for free on the BU website ([BilliardUniversity.org](http://BilliardUniversity.org)). It's time to see where you rank so you can set a goal to graduate your game to the next level.

I am happy to announce that I have now been a BD columnist for 10 years. That's 120 articles! This might not seem like a lot in comparison to the number of articles written by George Fels, Mike Shamos, and Bob Jewett, but I consider it a good start. I can't believe I've written so many already. I've always kept a file with a list of ideas for future articles. When I started in January of 2004, I had about 40 ideas for articles. Currently, I have about 70 ideas in the file, and it keeps growing. Every time I finish one article, I seem to think of 3 others I want to write. I hope you continue to look forward to my column for many years to come. I plan to stay around for as long as I am welcome.

Good luck with your game,  
Dean Dave

- [NV D.1](#) – BU - Part 1: Introduction - overview of the BU process for earning a pool diploma
- [NV D.2](#) – BU - Part 2: Table Setup - preparing to practice and take the BU exams
- [NV D.3](#) – BU - Part 3: Video Recording - recording official exam runs for online submittal
- [NV D.4](#) – BU - Part 4: Exam I Overview - demonstrations and scoring of the Fundamentals Exam
- [NV D.5](#) – BU - Part 5: Exam II Overview - demonstrations and scoring of the Skills Exam
- [NV D.6](#) – BU - Part 6: Submittal and Wrap Up - applying for a BU diploma online
- [NV D.7](#) – Pool Fundamentals - The Stance - from Vol-I of the BU instructional DVD series
- [NV D.8](#) – Stun Shot Drill - from Vol-II of the Billiard University instructional DVD series
- [NV D.9](#) – How to Aim Pool Shots - from Vol-II of the BU instructional DVD series
- [NV D.10](#) – Draw Shot Trisect Aiming System - from Vol-II of the BU instructional DVD series
- [NV D.11](#) – Cue Ball Control Target Pool Drill - from Vol-II of the BU instructional DVD series
- [NV D.12](#) – Safety Drill - from Vol-III of the BU instructional DVD series
- [NV D.13](#) – Kick Shot Aiming Systems - from Vol-III of the BU instructional DVD series
- [NV D.14](#) – Pool Break Technique Advice - from Vol-III of the BU instructional DVD series



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](#) on my website.

*Dr. Dave is author of "[The Illustrated Principles of Pool and Billiards](#)" book and DVD, and co-author of the "[Video Encyclopedia of Pool Shots \(VEPS\)](#)," "[Video Encyclopedia of Pool Practice \(VEPP\)](#)," and "[Billiard University \(BU\)](#)" instructional DVD series.*