
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. 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.

This is the tenth and final article in a series 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). Canadian instructor Randy Russell and I cofounded the BU with support from the following “dream team” of well-known and respected instructors: 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. **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. This month we’ll cover what is probably the most important shot in pool: the break shot.

Diagram 1 shows the layout for drill S10 in BU Exam II. You break a 9-ball rack 3 times and get a point for each of the following:

- not scratching
- keeping the cue ball (CB) from contacting a cushion
- keeping the CB within the center 4x4-diamond target zone
- pocketing 1 or more balls
- sending 3 or more object balls above the head string and/or into pockets.

See online video **NV D.5** for examples of scoring different breaks. This drill offers a good tool to assess and track improvement in your break over time. Give it a try, and start keeping records.

When you rack the balls, try to get them as tight as possible, with all of the balls touching. You are allowed to break from anywhere you want behind the head string. If you are comfortable breaking with a normal bridge, near the center of the head string is a good place for the CB. Breaking from the side, with a rail bridge, is another good option. With a 9-ball rack, a side break offers the best chance of pocketing the 1-ball in the side and/or the near side wing ball in the corner (see Diagram 1). Accuracy and consistency are very important with the break shot, so use only as much power as you can control.

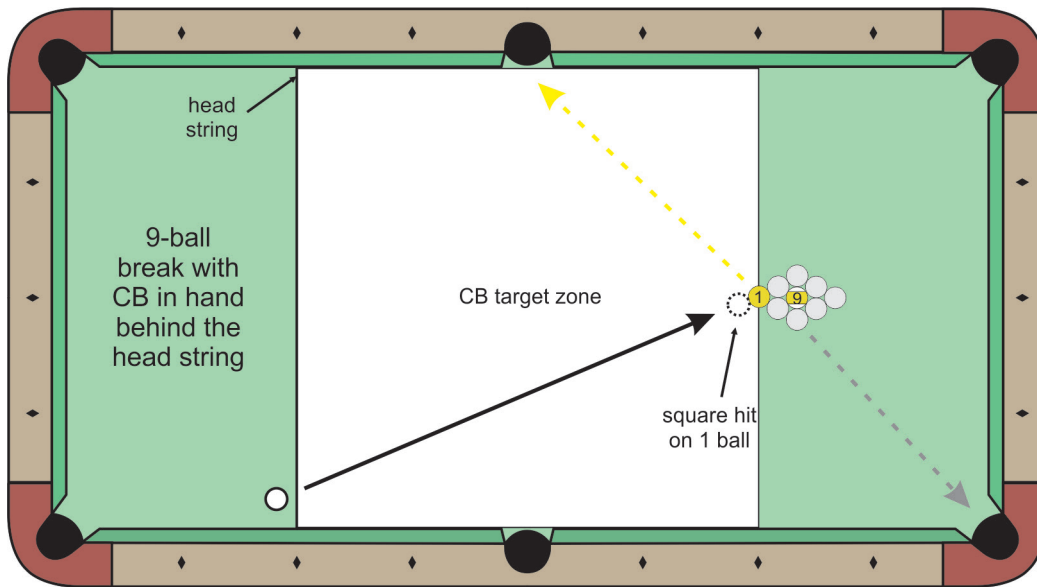


Diagram 1 Break shot drill layout

Online video **NV D.14** provides a summary of some of the helpful break-technique advice covered on Disc III of the BU instructional DVD series. The most important goal for a power break is to achieve a square hit on the 1 ball (see Diagram 1). A square hit delivers as much energy as possible from the CB into the rack of balls. It also limits the chances of hopping the CB off the table. To get a square hit, make sure you aim the break shot as carefully as any other important shot.

In addition to spreading the balls well with power, a secondary goal for the break is to control the CB and “park” it in the center of the table (AKA “squat the rock”). To do this, the CB must have slight top spin when it reaches the 1 ball. With a fast-speed break, to accomplish this you need to hit the CB slightly above center. The weight of the rack of balls makes the CB bounce back naturally, and slight topspin is necessary to slow the CB to a stop close to the center of the table. You will often see good breakers aim low on the CB at address, but the tip will usually rise up during the stroke due to shoulder motion and elbow drop used to add power. The stills in **Diagram 2** illustrate this action.



(a) Tip below center at address



(b) Tip slightly above center at contact



(c) Long, straight follow through

Diagram 2 Squatting the rock with power

One easy thing you can do to add more power to your break is to lengthen your bridge. A longer bridge provides more distance to smoothly accelerate the cue to create more cue speed. Also make sure your follow through is straight and complete (see Diagram 2c). This helps ensure tip contact point accuracy and fosters complete acceleration in to the ball in an unconstrained way. Also make sure your bridge hand is planted firmly

before and during the stroke into the ball to maintain accuracy and consistency. Another important element of good technique is keeping the grip as relaxed as possible. A “death grip” will not add any power to the break. In fact, it will do just the opposite by constraining and limiting full and smooth acceleration. It is okay to tighten the grip as you approach the ball – this can help some people create a little more power – but make sure the grip is relaxed to begin with.

Diagram 3 shows some additional advice for adding power. Choking up on the grip is one thing that might help (see Diagram 3a). Generally, during regular play, the forearm should be perpendicular to the cue at tip contact, but moving the grip forward some can help put the shoulder and elbow into stronger positions during the stroke into the ball.

Coordinated motion of the elbow and shoulder can add significant power. When doing this, having a more upright stance can help create a longer lever arm (see Diagram 3b) and make it easier to get the strong shoulder muscles involved. You can raise your body before the stroke, after first aiming carefully in your normal position; or you can raise your body during the stroke. Raising the body during the stroke can help some people generate a little extra power. See **NV D.14** for demonstrations and additional advice. Again, use only as much power as you can control, and don't use body lift, shoulder motion, or body lunge unless you have practiced these things enough to master them.



(a) Choke up on the grip



(b) Create a longer lever arm with an upright stance and/or body lift

Diagram 3 Techniques for adding power

For more break technique advice, along with links to other helpful video demonstrations, see the [break technique advice page](#) in the FAQ section at billiards.colostate.edu. And if you want to see how often pros

make balls on the break and run out after the break, see the [statistics section](#) on the break resource page. Here's some example data from the 2013 US Open 9-ball Championship: The breaker made at least one ball (and did not foul) 63% of the time, won 56% of the games, and broke and ran 21% of the games. Check out the resource page for more info, and consider keeping records for yourself to see how you stack up against the pros and to track your improvement over time.

If you haven't taken the BU playing-ability and rating exams yet, give them a try. They provide a fun, challenging, and efficient pool workout to help you develop and improve the full range of pool skills necessary to be a good player. Everything you need to prepare for and take the exams is available for free at BilliardUniversity.org. It's time to see where you rank so you can set a goal to graduate your game to the next level. As Dean of the BU, I look forward to awarding you a pool diploma in the near future.

Good luck with your game,
Dean Dave

[NV B.81](#) – Bank and kick shot terminology and basics, from VEPS IV

[NV B.85](#) – Corner-Five System for aiming three-rail kick shots, from VEPS IV

[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](#) – CB 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



normal video

PS:

- If you are a pool instructor and are interested in becoming involved with the BU, check out the “[Instructor How-To Guide](#)” in the instructor section at BilliardUniversity.org.
- Every July, we hold a BU Summer School Boot Camp in Colorado. If you want to raise your game to the next level, consider attending. Details are available at BilliardUniversity.org. I hope to see you there.
- 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](http://billiards.colostate.edu) at billiards.colostate.edu.

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.