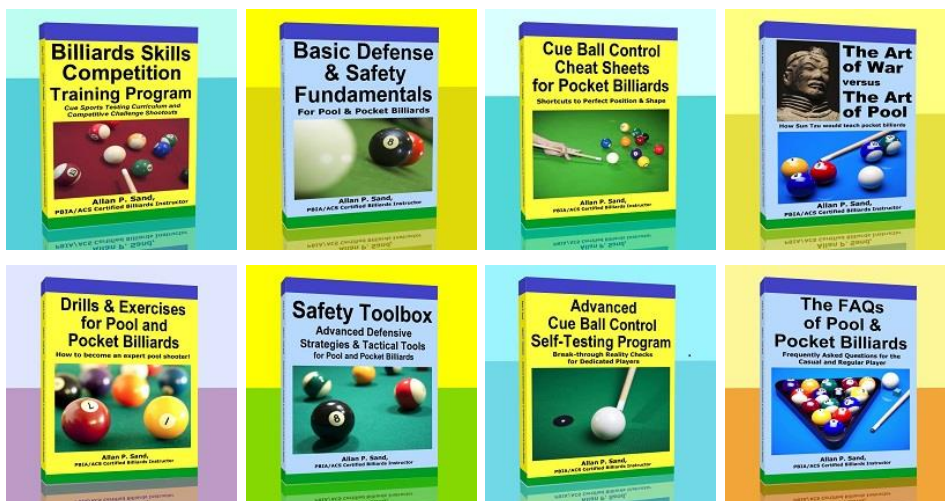


## **Samples – Safety Toolbox For Pool & Pocket Billiards**

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*These are some sample pages from the book by  
[Allan P. Sand, Author](#)*

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# Safety Toolbox

These are sample pages from the book. If you want to be the intelligent player, you must consider when and how to apply defensive tactics. Otherwise, you're doomed to lose way too many games.

## Psychological warfare



**WARNING:** *Read this only if you are serious about learning the reality of high-level competition. If you are a casual player, ignore this and use the table of contents to study topics that are important to you now.*

In all types of competition, there is an element of the game played above the table. In the minds of every player is the battle to hold strong the drive and will to win. Forces that affect this intention begin with the player's opinion of his personal self-worth, usually proven by table results. Win one or more games and personal opinions are positive; lose one or more games and it can begin a self-defeating downward spiral.

Instead of considering game wins and losses to be your personal measurement of self-worth, consider a different gauge. When you play "above the table", individual setbacks are less relevant. It is more important when you learn how to consistently win using strategy and tactics. (See *The Art of War versus The Art of Pool.*)

The game of pocket billiards is played turn by turn. Each player starts with the layout left by his antagonist. When you consider that a defensive shot hands your opponent the table that you decide he can have, the game changes into a command and control situation. When you allow him to shoot, you are in control. You decide from where on the table he starts. The power you have over his opportunities depends on you. How well can you control the cue ball and other balls on the table? If you can figure out his weaknesses and strengths, you can tailor his choices.

**Note:** This is not about sharking and mind games as defined in the book *The Psychology of Losing – Tricks, Traps & Sharks*. The techniques in this book are applied with all due attention and behavior expected for proper sportsmanship.

## Safety Types

All defensive shots can be categorized into a small set of basic safety types. Every safety played in your entire lifetime is a variation of one

or a combination of the types. Each of these, when wisely selected and carefully played, improves your chances to win. As you study and practice the various safety exercises (starting on page **Error! Bookmark not defined.**); your knowledge, abilities, and confidence expands.

Study each type carefully. At the practice table, set up the various examples and play some of the layouts. Shoot the shot you want to leave your opponent. If the results are tough for you, it is tough for your regular opponents. All of these become core tools of your defensive game.

All safeties are selected with the intention of reducing your opponent's chances of successfully winning the game. When you play a defensive shot, you are letting your opponent come to the table. Among the variety of choices, select one that gives him a very small chance of success. In this way, you limit his ability to play his best.

You may calculate the percentage of a successful shot for you to be 5%. Therefore it would be a similar problem for your opponent. With the chances of failure in your favor, that is the kind of shot to offer your opponent. Use percentages to help decide what to do.

The whole idea about safeties is to introduce some problems and difficulties to your opponent. You have to be "mean" to him. If you don't like a particular setup, your opponent won't either. These all help hurt your opponent's chances of beating you:

- Bad angle – making it tough or impossible to cut the ball to a pocket.
- Bridge-required – forcing the use of the mechanical bridge.
- Confusion – creating problems by rearranging the furniture.
- Distance – offering shots far, far away.
- Frozen cushion – forcing him to shoot off the rail.
- Hidden ball – making him kick for a legal hit.
- Illegal shot – doing something bad to make it worse.
- Over-a-ball – forcing him into an unnatural pose.

## **Safety Exercises**

When many students of the Green Game get a new instruction book, they immediately jump into the drills or exercises section. The new acquisition could be THE one blessed by the billiard gods. There just might be a new interpretation or viewpoint or awareness of the table secrets of the billiard gods.

All of the provided exercises in this section will give you a significant edge over your opponent. Each of them shows you how to move balls

around with precise control. Even a few practice minutes with each one benefits your game. Your regular opponents will wonder what happened to the old you.

You can, of course, just review the exercises to understand the theory. During competitive matches try to implement the concepts. That's lazy and most of the time results are unsatisfactory. Even so, knowledge is always a plus. Scanning through this book improves your understanding of defensive concepts.

To practice this material requires some self-discipline. Select several exercises to work on for a day. Spend no more than five to ten minutes on each one. This keeps your interest level high and prevents boredom.

During any pre-match warm-ups, look for opportunities to slip in the shots you practiced. When performed successfully, pat yourself on the back. (A bit of self-congratulations on successful results is acceptable.) On any failure, figure out what should have been done to make the shot work.

The majority of your opponents follow the "learn only during competition" self-improvement process. They become practice dummies who provide opportunities to prove that your practice time was effective.

If you are serious, perform mini-practice sessions of 10 minutes, five times a week for just two weeks. Your improvements become the equivalent of a year's competitive learning experience. Of all the skills that can make you a formidable player, mastering precisely controlled shots pays the biggest life-long dividends.

Use the small (2"x3") Post-it sheets to mark target positions for each practice exercise. Use the donuts for starting positions. When you have full control over these exercises, invent new ones.

## **Analysis Training**

Being able to make choices with successful outcomes requires a lot of brain work and practice. Among top players, pool has been compared to chess. A player must consider hundreds of options and choices before selecting a single shot. A poor decision in the early-game can cause a loss.

Your better choices are made based on experiences successful and unsuccessful. A player who doesn't learn from mistakes will always be a bar-banger. An thinking player, on making any mistake (analysis, shot choice, execution, etc.), always stops to figure out why.

It takes effort, time, and practice to change the habits of table analysis. If you were like many players, those analysis habits were

heavily weighted towards offensive choices. Previously, you may have considered defense only in the most dire circumstances. Even when the idea crossed your mind, lack of experience meant that only a few obvious options were possible.

Conservatively, to get competent with defensive consideration, you need to process approximately three to five thousand pre-shot defensive analysis efforts. That is what it takes to get comfortable with your new thinking habits. If you only consider layouts that occur when it is your turn, your learning process suffers.

There is a shortcut to make the process faster. Apply defensive table analysis at every layout you see. Here is the short list of opportunities:

- Every shot you have.
- Every shot of your opponent.
- Every shot when watching others.
- Every shot watched on video or TV.

Using the *Mindset matrix* process, these are the steps you would apply to any table layout:

1. Select the target ball. (If multiple balls, apply this process to each ball.)
2. Determine the realistic chances of success as a percentage (how many times can you make the ball if given 10 tries).
3. If the pocketing percentage is workable, what about getting position?
4. If the chances for getting position are good, play the shot as an offensive effort.
5. If the pocketing or positioning number is barely acceptable, play the shot as a two-way (see page **Error! Bookmark not defined.**).
6. Play a defensive shot if nothing looks good. Consider the ways to improve the layout to help you and hurt your opponent.

For training purposes, you already have sufficient experience in offensive thinking. To properly develop your critical thinking processes, you want to go straight to steps 5 and 6. In other words, instead of looking for ways to win, look for ways to protect yourself from losing and make your opponent suffer.

Remember that a defensive choice must have one overriding purpose - to limit, reduce, or remove the chances of your opponent to advance to the win. Regardless of how well or clumsy the result was, if it

achieves this, be happy with the shot and learn from any miscalculation. And even if it failed to be perfect, your heart was in the right place. Practice and experience will improve future efforts and move reality closer to your fantasy.

When considering the many ways to play defensively, the choices start numbering in the hundreds and even thousands. Here are some questions to help:

- What safety tool (or tools) can be applied to the target object ball?
- For each tool (bad angle, distance, etc.) being considered, where are the best places to move the balls?
- Focus only on the cue ball?
- Focus only on the object ball?
- Attempt to manage both balls?

Once you decide what to do, use these calculations:

- Ideal scene (a mental image of perfect results).
- Acceptable tolerances.
- Planned angle of the cue ball into the object ball.
- Planned cue ball speed and spin.

Your cleverness provides the many ways to challenge, confuse, divert, and otherwise prevent your opponent from winning the competition. (See *Psychological warfare*, page 1.) This way of thinking takes time to develop. Fortunately, you have an entire future lifetime of playing pool. As you gain better control and make wiser decisions, the game becomes much more fun.

## **Cue Ball Control – off the object ball**

After the cue ball contacts an object ball, controlling it to an intended location is critical to playing effective offensive patterns and defensive plays. Every shot during a turn at the table should be as precise as you are capable of performing.

In the process of managing your shot, cue ball control is the easiest. This is because you directly create the cue ball's spin and speed. This gives you tremendous flexibility in selecting the final stopping location. (An extra side benefit is fewer scratches.)

There are three things to consider when positioning the cue ball.

- Angle into the object ball - gives you the path the cue ball will follow.
- Amount of energy transfer to the object ball.
- Amount of energy absorbed in the rails.



This is when you can calculate, with remarkable accuracy, where the cue ball will stop. Using these exercises, you can learn how to achieve this predictability. Repetition gives you sufficient feedback to make your intentions reality.

Ultimately, you are responsible for all ball movements and where they stop. Nothing moves on the table except because of your stroke. You apply a selected amount of speed and spin to the cue ball and everything else happens because of that. When you consider this, luck should never be a factor in any shot except the break. You should know where every ball goes.

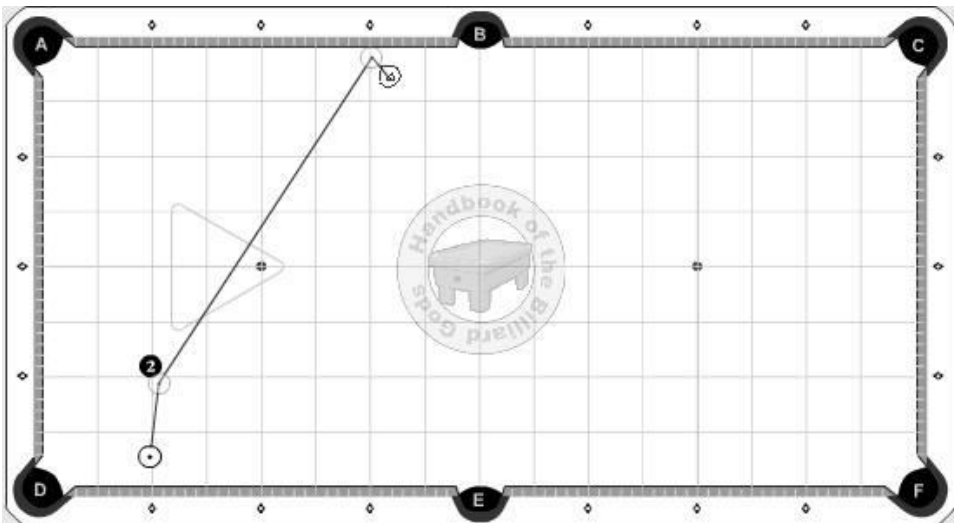
**Note:** Different tables provide slightly different results. A few practice shots should dial in the correct adjustments for that table.

There are two different ways to practice these exercises. Learn how to control the cue ball using:

- A thin contact - grazes the object ball and moves it slightly.
- A full contact - hits the object ball more solid and pushes the cue ball through the object ball with follow.

## One cushion

Set these up with donuts. Select a specific place to die along the cushion. Use a thin and full hit on the object ball.



## Ball control - object ball positioning

There are situations when it is important to control where the object ball stops. To accomplish this and do it well, set aside concerns about

the cue ball (except to prevent scratching) and concentrate attention on the path and distance that your target object ball travels.

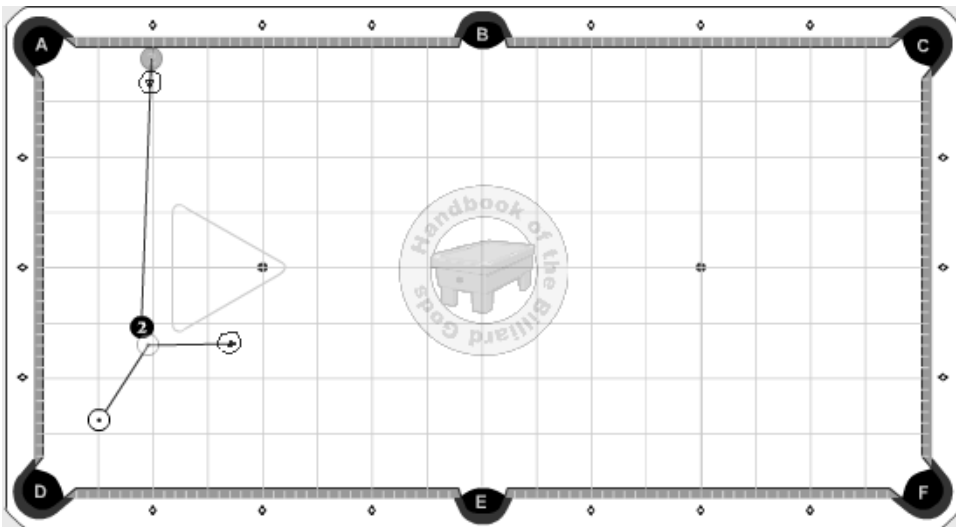
In an 8 Ball game, move balls to become pocket blockers and otherwise obstruct your opponent. Other options are to move a single ball out of a cluster. In 9 Ball, send the target ball behind a wall of balls or set up an effective distance or bad angle safety.

This ability to send object balls to planned locations allows the development of complex game strategies and tactics. The more you use it, the more experiences you gain and the more options that can be considered.

It is important to place the object ball into the final location of the exercise. At first, work to get the object ball into a diamond square. Then work on a half diamond square target location. Use a Post-It sheet to mark the target area.

## One cushion

In 8 Ball, this could look like an offensive shot, but be disguised to set up an easy shot later or block the path of another ball.

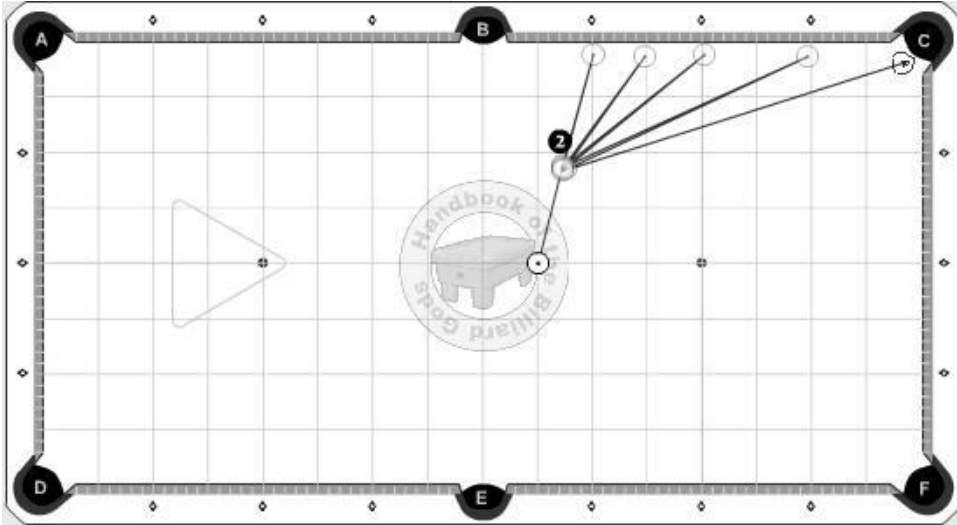


## Spin Control

### *Follow*

There is the old saying, "Draw for show, follow for dough." Using the correct amount of follow for the different cue ball speeds takes practice. Eventually, you can develop the correct "feel".

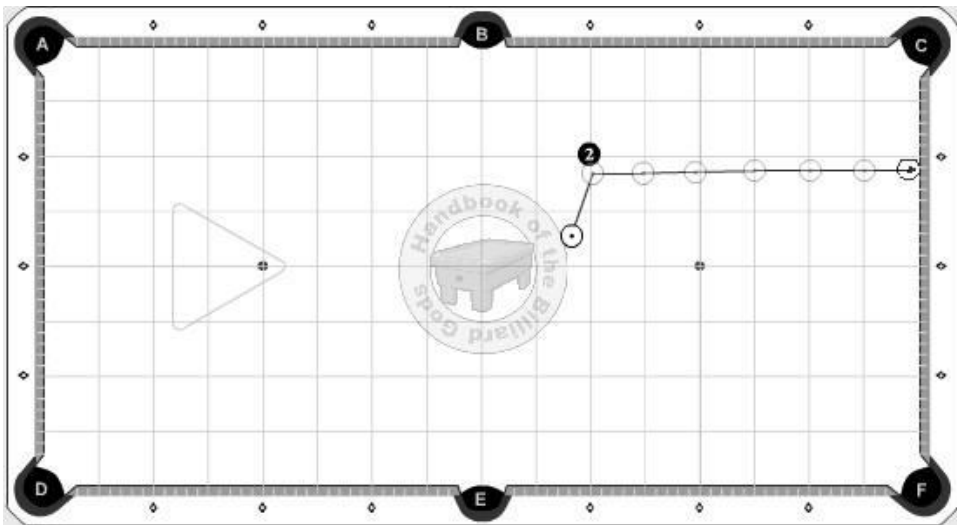
This teaches how to work with both thin and full hits. Lay the cue ball on the rail.



### **Stun**

For these exercises, you want to stun the cue ball and slide it down into the intended location using different speeds from slow to fast. There are a lot of hidden lessons built into this exercise. Learn them.

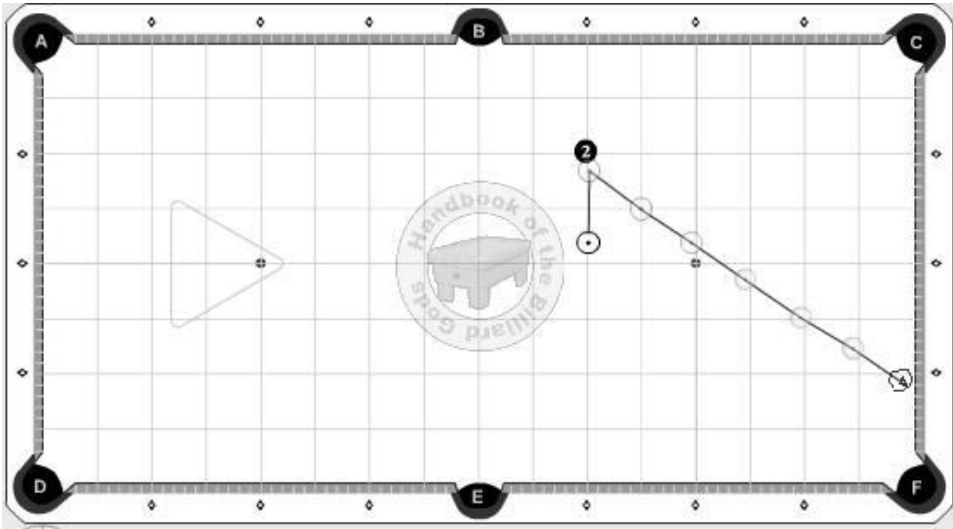
Keep practicing these. It may become boring, but it provides the skill to achieve square-inch positioning. Each shadow ball is a target position.



## **Draw**

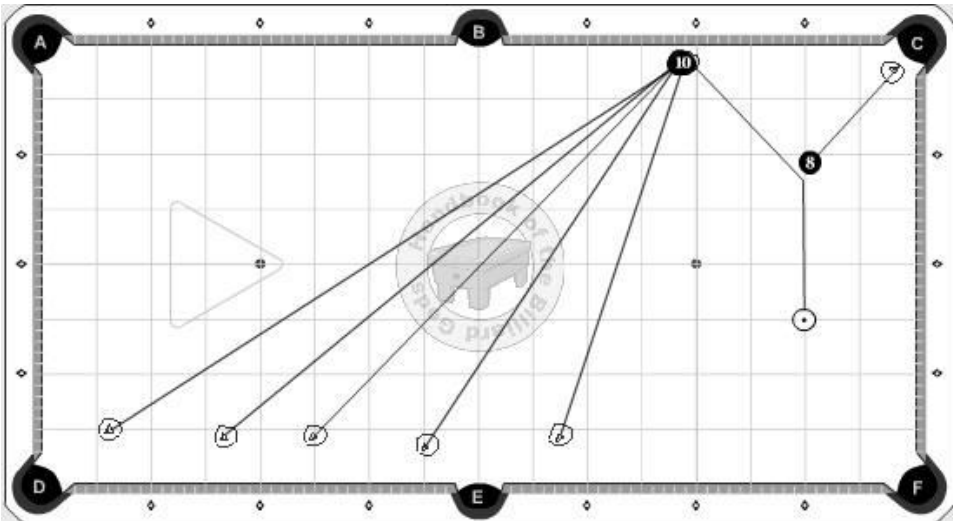
This can require the most work in learning cue ball control. It will provide the greatest rewards. (If you play straight pool, this dramatically increases your run average.)

Keep working on the keeping the draw-back line consistent. Each shadow ball is a target position to stop the cue ball.



## **Shooting with Side Spin**

Work on pocketing the ball and spinning the cue ball to these table locations. Make the shots predictable. Use various speeds.



## Key knowledge factors

When you decide that the best shot for the circumstances is a safety, there are a wide variety of factors to be evaluated. These considerations are necessary to help you fine tune your options and select the most effective shot that is within your skills. The following sections are summaries of other articles in this book. They are provided here to give you a quick overview and reiterate their importance.

### ***Opponent's comfort zone***

You must know your opponent's abilities and skills. What types of shots are easy or difficult for him? You don't want to discover that what you thought to be a good safety effort just gave him an easy opportunity to run out to the win.

How good (and how bad) is your opponent? Rate him on these types of shots:

- Pocketing skills
  - Long shots – what distances and angles?
  - Bank shots – cross-side, cross-corner, long-table, reverse cuts?
  - Angles – how sharp and what distances?
- Positioning skills
  - Speed – how precise and over what distances?
  - Draw – how precise and over what distances?
  - Follow – how precise and over what distances?
  - Side spin – how precise and how effective?

What's easy? And where does it stop being easy? The better the opponent, the more care and attention you must apply to your defensive shot. An extra ball roll can put a winning opportunity into his hands. If facing a lower skilled player, you can confound him by leaving shot angles that are giveaways for a better player. Knowing your opponent's abilities allows you to make more effective choices.

### ***Your ball control abilities***

Some situations require that one or more balls be rolled into precise locations. Other shots have more tolerance in ball roll distances and positioning. For example, when considering a hidden ball safety, the size of the shadow zone determines the level of precision required. Distance and bad angle safeties allow significant variances, but still require proper attention and intention.

The table layout usually offers a wide variety of safety shots limited only by your imagination. The final shooting choice must be within your personal ball control abilities. One of the common mistakes players make in shot selection is to attempt something beyond their ability to perform. Keep things simple and within your capabilities.

### ***Table layout analysis***

The table layout provides defensive and offensive opportunities to apply your various shooting tools. Rules of the game may provide more opportunities or restrict your choices. Know what can be done and cannot be done within the rules.

The beginning of the game with many balls on the table has dozens, even hundreds of choices. Do not play a safety just to do so. Have a reason and purpose in mind. Competitive games require serious consideration of the expected benefits of a successful effort.

The mid-game has fewer options. You need to be a bit more inventive about your shot considerations and selection. The end-game, with a few balls remaining in play, requires more precision in cue ball and object ball placement. The slightest mistake loses the game.

### ***Energy transfer calculations***

When two balls collide, a certain amount of energy is removed from one and transferred to the other. The amount of the energy transfer depends on the angle that one ball comes into the other. (See *Energy transfers* on page **Error! Bookmark not defined..**)

A half-ball hit transfers approximately half of the cue ball's energy. Barely scraping the cue ball against the object ball transfers a very small amount of energy. A full head-on contact sends almost all of the energy into the object ball.

These calculations must also consider the amount of side spin on the cue ball when it makes contact with the cushion. This further affects where the cue ball travels. (See *Side spin* on page **Error! Bookmark not defined..**)

### ***Table conditions***

Every table has its own unique characteristics. A game can be lost when these conditions are unknown. Each one requires slight modifications in shooting style and shot selection. Playing on a wide variety of tables makes most adjustments almost automatic.

When coming to a table upon which you have no experience, always shoot a few shots to identify any obvious variances. Table conditions that affect your game are:

- **Cushion.** It is important to know the bounce factor in order to

- predict ball travel after the bounce.
- **Cloth.** Thicker cloth means shorter ball roll distances. Cloth that is damaged or repaired or worn out throws off ball roll direction. A lot of chalk dust embedded in the cloth causes unpredictable ball behavior.
- **Table level.** A poorly leveled table causes rolling balls to move in unpredictable curves and directions. As you become familiar with the eccentricities, you can play some of these to your advantage.
- **Weather.** Heat and cold affects cushion responses and ball roll distances. High humidity slows down rolling balls - a lot.
- **Balls.** Well-cleaned balls roll further. Dirty balls cling together on contact which throws the ball in deviant paths.

Knowing table conditions allows you to turn them to your advantage and against an opponent who isn't paying attention. Where possible, learn about them before you start the match. It becomes one more factor to be used to make the competition more fun.

## Motivation

Strength of will is not required to keep going when you continuously have thrilling successes and things always go your way. It either means you are playing your best ever (usually only that one time in a year), or you are beating up on beginners.

What about when you are constantly losing? That could mean you are playing opponents way beyond your skill level, or you are so drunk even bar-bangers consider you easy.

It is the close games that were lost and could have - no - SHOULD have won. This is when the will to live can be at its lowest. Somehow, you have to dig deep inside yourself and use the loss as a drive to improve.

There are few who have the intestinal fortitude and deep drive to improve based only on the pure love of the game. You might need more realistic rationale to get yourself to the practice table and work on improving skills. Based on a survey of regular pool hall players, here are some reasons others have used for their personal motivation after experiencing black times.

- **Get back at a bad winner.** You might know some individuals who took a bit too much joy in your defeat. Those who act in that manner also take losing personally.
- **Gain respect from contemporaries.** Among your table friends, using effective safeties increases your winning percentage enough to move up in the pecking order.

- **Improve defensive skills.** If you are a person who knows his game lacks this necessary thinking process and the associated skills, developing safety tools is an excellent way to expand your competence.
- **Cash control.** With effective safety use, people who previously confiscated your spare change will find the flow changing direction. Explain it away as a lucky day.
- **Improve your game winning average.** Just the knowledge of safety strategies and tools expands your overall imaginative abilities and can add a 10% average improvement in your win-loss statistics.

Use one or more of these along with other personal motivators to drive you to develop your defensive game. It pays off over your lifetime.

## Opponent profiling

This includes a detailed opponent analysis. It includes known details about the player. It describes his psychological profile of emotional reactions and responses. These are important elements to keep in mind when you are assembling a safety plan:

- Personality - define with as much detail as possible. Enthusiastic, friendly, reserved, courteous, aggressive, angry, quiet, quirky, etc.
- Skill level - A, B, C or APA 4, 5, 6, 7. If these are unfamiliar, use yourself as a guide - i.e., better with banks, worse with long shots, etc.
- Playing style - define how he plays in casual games and competitive matches. Identify how he plays routines and patterns.
- Practicing/playing time - on a weekly basis, find out how much time he spends playing and how much time he spends with serious practice.
- Patience level - identify how much opportunity denial must occur before he reacts emotionally. Some players react quickly, others need several games.
- Knowledge level - how many years he has played. Only a few years of playing time indicates he won't know some of the pocketing and positioning short-cuts. If thirty or forty years, he could turn tough situations to his advantage.
- Sharking ability - verify his sportsmanship. Most serious players do not shark. A dilettante would depend on juvenile sharking tricks. A subtle player uses more sophisticated gamesmanship. Embarrassments can be a great way to stop this.
- Problem handling - if he expresses negative emotions about



anything, you can craft traps that enhance his reactions. If not, additional probing may be necessary.

Unknown details will have placeholders that initially define working estimates that are used until more concrete details are available. Over time a profile is developed that includes everything known (or guessed) about a player.

## **End-game tactics**

In 8 Ball, the end-game begins when one or both players are down to 2 or 3 balls or there are only five or six balls on the table. In 9 Ball, the end-game starts at the 6 or 7 ball.

There is a change in your approach at this point. With fewer balls to play with, fewer safety types are available. Usually, between two players who are using their brains, it becomes a safety battle requiring sharp wits and focused skills. The winner sometimes needs a bit of luck.

The loser of the game is usually the individual who makes a position or placement mistake. As the smarter player (as long as you have practiced the exercises and kept your emotions under control), you should win most of the games that reach this stage. With superior control, you can play inning after inning, wearing down your opponent's will to win until he finally opens up the table for you.

This is when the highest level of attention and the greatest focus that can be mustered is required. You might have taken it easy during the early-game or mid-game, but the end-game is where the winner is determined.

Just to remind you, here are some tactics that give you the edge. When you let him shoot, give him these situations:

- Freeze the cue ball against a rail.
- Use the dead zones.
- Offer many banks.
- Far, far away is good.
- Bad angles are always a plus.
- Two-way shots are cool.

Above all - be patient. Until your opponent hands you the opportunity to win, take your time designing each defensive shot. Continue playing "keep away". Give your opponent every opportunity to make mistakes and give you a generous gift.

# Translations of Other Books

These are links to descriptions for the books that have been translated to other languages:

- [Advanced Cue Ball Control](#)
- [Cue Ball Control Cheat Sheets](#)
- [Drills & Exercises](#)

All books are available on Amazon (printed) and ebook (PDF).

[Afrikaans \(Afrikaanse Taal\)](#)

[Albanian \(Gjuha shqipe\)](#)

[Belarusian \(Беларуская мова\)](#)

[Bulgarian \(български език\)](#)

[Chinese \(中国语言\)](#)

由 Gerry Chen 翻译

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