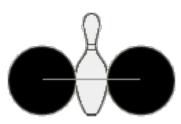


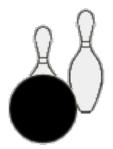
The secret to bowling is to pick up your spares. The following is written from a right-hander's perspective. Left-handers should be able to adapt the following advice for themselves.



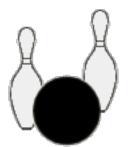
Single pin spares: Which spare offers the biggest target in bowling? The answer is: the 1-pin (also known as the head pin). Other single pins are slightly farther away from the bowler, and offer slightly smaller targets. Larger spares, like the 2-4-5 are much smaller targets, because not only do you have to hit the front pin (roughly the same size target as the 1-pin) but some of those hits will leave one of the pins standing. The size of the target, in the case of a single pin, is roughly the width of the ball plus the width of the pin. This is a large target. And the main factor which determines how often you pick up a given spare is the size of the target. Bowling is a game of percentages. The question is not whether you will pick up this spare, but how can you pick it up more often.



The 10-pin: For right-handed bowlers, the 10-pin is a smaller target than any other single pin spare. The reason is that the ball will drop into the gutter on some shots which would normally hit the pin. Shooting cross-alley (from the far left as in the diagram) is vital, to increase the size of the target. Also, throwing a big hook at the 10-pin (or any single-pin spare, in my opinion) is foolish. The 7-pin is much easier because right-handers automatically shoot this cross alley to some extent (because the ball comes from the right side of the body and because of hook). My warning against using a big hook on single pin spares does not apply to the 7-pin. The hook increases the size of this target.



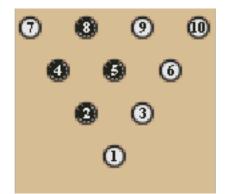
The chop: Let's call a spare like the 1-2 or 4-7 or 5-8 a "right-handed spare." And the 1-3 or 5-9 or 6-10 are then "left-handed spares." The right-handed spares are much larger targets (almost as big as a single pin spare) for right-handers, than are the left-handed spares. In particular, you can "chop" the left-handed spares (hit the front pin head-on, and miss the back pin). Right-handed spares are difficult to chop. With a right-handed spare, you can hit the front pin on either side and still pick it up. Also, shooting the 6-10 cross-alley will greatly increase the size of the target.



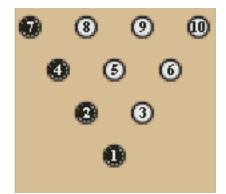
Baby splits: The 3-10 and 2-7 (and certain unusual splits and washouts) are normally picked up by hitting both pins with the ball. You can also slide the front pin into the back pin; but that is a smaller target. Shooting these splits cross alley also increases the size of the target. In fact, a big hook at the 2-7 can make it difficult to miss, as almost any hit on the front pin will convert the split. Unfortunately, right-handers leave the 3-10 much more often than the 2-7. Throwing a big hook at the 3-10 (and even missing between the two pins) is foolish. A lighter ball actually works better on these splits, as the ball is deflected more by the front pin.

Sleepers: The 2-8 or the 3-9 are difficult spares (small targets). In general, you must hit the front pin just right. You can increase the size of the target by shooting these cross-alley and/or with a big hook.

4-5 and 5-6 split: These splits require a very accurate shot directly between the pins. Shooting cross alley or with a hook does not matter very much. You can sometimes topple one pin into the other, but that is pure luck.

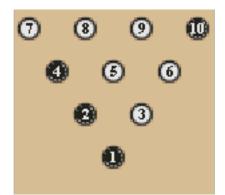


The bucket: The 2-4-5-8 is the bucket, and is fairly difficult. The front three pins offer a relatively large target, but you have to hit them fairly precisely to take out the back pin, either with the ball or with the front pin (which hits one of the other pins before hitting the back pin). You should try to hit the back pin with the ball. You can increase the size of the target by shooting this cross-alley and/or with a big hook. A heavier ball will also increase the size of the target. You can also hit all three of the front pins with the ball. This is not something that you should try to do, but it is a natural consequence of trying to take out the back pin with with ball.



The Clothesline: This is even more difficult than it looks. There are several ways to pick this up, all of which can go wrong. In general, you want to hit the 1-pin on the left side. That alone does not guarantee that you will pick up the spare. Let's look at the cleanest shot: you hit the 1-pin heavily, so that the ball knocks the 2 into the 4 into the 7. That is a tough shot. So, let's hit the 1-pin thinly, so the ball knocks the 4 into the 7. That too is a tough shot. So we hit the 1-pin thin with a hook (and/or shooting cross-alley, or use a light ball) so the ball hits all four pins. That last one turns out to be the biggest target. But no matter how you do it, you will find that you sometimes will miss the spare, when you thought you made a good shot.

5-7 and 5-10 splits: You can pick these up. In fact, your strike ball is very close to where you want to throw for the 5-7. I throw a strike shot, but a little harder in order to hit the 5-pin thin enough. The target is small, but you should aggressively go for these splits.

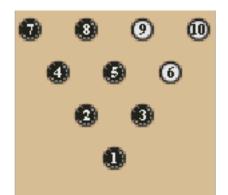


Washout: If the 1-pin is standing, then your spare is not officially a split, even though some splits might be easier to pick up. In this diagram (1-2-4-10), slide the 1-pin into the 10. Some people never pick this up. They need to practice throwing a Brooklyn (hitting the 1-pin on the left side) shot.

Big splits: The 4-10, 4-7-10, 6-7 and 6-7-10 are very difficult. You will probably be lucky to pick these up once or twice a year. So you should seriously consider making sure that you get one pin (or two, if the spare is the 4-7-10 or 6-7-10). The reason for this is mathematical. Your expected score is higher if you shoot down one pin (especially on a strike, as each pin is worth double its normal score) instead of trying to pick up the split. A couple of factors should be considered:

- 1. Does getting one pin matter? Is the score close? Maybe one pin will win the game. Maybe one pin with win the tournament. If the game is in doubt, your teammates may appreciate that you got your one pin. But in some situations you must pick up the spare, or lose.
- 2. With the 6-7 or 6-7-10, do you have a nice consistent shot at the 10-pin? In other words, do you have a really good chance of getting that 6-pin, even while trying to pick up the split? Personally, I would say, "Go for it," unless the team needs that pin (figure out if the team does need the pin). Also, throwing a big hook at the 4-10 may decrease the size of the target to zero. A straight ball from the left does increase the size of the target somewhat. And throwing a hook at the 6-7 will increase the size of the target somewhat; a big hook will have to contend with the gutter, making the target smaller.

"**Impossible**" **splits:** The 7-10, 4-6, 4-6-7-10 (the big four) and others can be picked up, in two ways: (1) by sliding one of the pins into the other(s) or (2) by knocking a pin into the pit, to bounce back out at the other pin(s). But these spares are nearly impossible. Getting the one or two easy pins is the accepted method. But you can do this and still have a chance of bouncing a pin out of the pit. For the 7-10 and 4-6, I shoot fairly hard, hoping to get lucky.



A mess: This spare is fairly common (I almost said, "popular"). The question is, should I throw my strike ball (1-3 pocket) or throw Brooklyn (1-2 pocket)? I contend that the target is much larger on the Brooklyn side. You may not be comfortable aiming at the Brooklyn, when you are familiar with the shot to the 1-3 pocket. But I think that it is about time you learned to hit that shot.