An easier method that increases your rev rate

Although there are exceptions of great success without it, few people can deny the growing importance of a higher rev rate at the highest levels of competition in the sport of bowling. Just look at Tommy Jones, the fastest player to win 10 PBA titles, who has a rev rate of just under 500 rpms. And, for another clear example, just look at the high rev-rate two-handed bowler Jason Belmonte, 2007 World Bowling Writer International Male Bowler of the Year.

A higher rev rate allows bowlers to create a sharper change of direction down the lane, leading to a higher entry angle into the pocket and increased striking power. C.A.T.S. data has captured the low end of the professional rev rate at a minimum of 375. According to the PBA, the average ball speed on Tour is 18 mph with 16 revolutions per shot. This is equivalent to a rev rate of 420 rpms for the average PBA player.

This month, I want to share with readers an easy-to-use method to increase your rev rate. With some patience, you too will be able to increase your rev rate when needed.

Frankly, I believe too much attention has been paid to the “cupped to uncupped” release to generate a higher rev rate. Without the fingers in a strong position, this method is less effective. I argue that the finger position entering into the release is a more important factor in generating revolutions as well as a prerequisite for the “cupped to uncupped” release to be effective. Most importantly, for the majority of bowlers, it is easier and safer to learn to keep the fingers in a strong position than to retain the cupping position into the release.
Strong finger position entering into the release: the key to high revs

As the old adage states, a picture is worth a thousand words. So, let’s begin by reviewing two photos of the pre-release hand positions of PBA players Jeff Carter and Sean Rash. Notice how similar the finger location is in the hand position of both bowlers as they are entering into the release ignition point. If you review the position of most PBA players’ fingers as they enter into the release, you will see this strong position. And, this finger position is present in top 2-handed bowlers such as Jason Belmonte and Osku Palermaa. This finger position allows these bowlers to more easily generate a higher rev rate.

And, this position of the fingers, entering into the release, is one of the absolute keys to generating a high rev rate. I refer to this as the maximum revolution potential position. As the bowler enters into the point in which they will begin the release, the ring finger is at 8 and the middle finger at 7 o’clock. For the lefthanded bowler, the fingers are in the 4 (ring) & 5 (middle) o’clock position.

Consider the distance the fingers have to travel, from the start of the release until the ball leaves the fingers. This is particularly clear in the front and side view of Michael Fagin. From this strong initial finger position, the hand will rotate smoothly and quickly around and under the bowling ball, creating a higher revolution rate.

To see the difference, between various clock positions, conduct an experiment with a tennis ball or any ball that will fit in your hand. Begin with your hand in this strong finger position and finish at a 45-degree release position (4 & 5 for RH; 7 & 8 for LH). Specifically, you will go from the 7 & 8 o’clock position to the 4 & 5 o’clock position. Now, compare that with starting in the 6 o’clock position. Again, finish with a 45-degree release position. Notice how much more the ball revs with the first compares with the second. I recommend practicing the technique at home with a tennis ball. It will help you develop the feeling for this method.

Strong hand remains at the top of the swing

The finger position of the hand entering into the release is discussed above. But, how do you establish this position? Most readers will recall Amletto Monticelli in the 1990s with his hand open to the extreme at the top of the backswing. This illustrates the extreme case of keeping your fingers in a strong position at the top of the swing. With this position, a bowler is setting the hand to be in a strong position entering into the release. Although this extreme position at the top has been eliminated for most, including Amletto himself, many bowlers have this at the top of their swing.

As you see with the photos of Tommy Jones and Danny Wiseman, their fingers remain in a strong position at the top of the swing. This finger position placement, will establish the hand in a desired position at the bottom of the swing, leading into the release, as discussed earlier in the article. Other top professionals who often have the hand in this position include Pete Weber, Danny Wiseman, Jason Couch, Mike Devaney, Rhino Page, Brad Angelo and Jeff Carter. With fluidity and smoothness, of the release, these bowlers are able to generate high rev rates.
Stance: Setting the stage

Generating a higher rev rate begins in the stance. Specifically, to increase your rev rate, set your fingers in a stronger position by rotating your wrist to place the ring and middle finger in the 7 and 8 o’clock position. For the lefthanded bowler, this is a starting position of 4 and 5.

To set your hand in a strong position, at the point of release, you must keep your fingers in this position through the pushaway and into the swing. As you are developing a feel for this method, focus on holding this strong position until your hand passes your ball-side leg. This will establish the habit of keeping your hand in a strong position as you enter into the upswing setting the stage for a strong finger position at the top of the swing.

The easiest way to accomplish this is to focus on maintaining your ring finger in the same position, from the stance, through the push, into the swing. Keep the ring finger in the strong position.

Due to the forces applied to the wrist, use your balance hand to support the bowling ball. Use this support throughout the pushaway.

In addition to the strong starting hand position, it is important to establish a leverage-producing body position. This will promote a later body position at the finish as well as increase your target accuracy.

One common problem and how to eliminate it

One major problem many bowlers create for themselves is early ignition. Specifically, this is when a bowler begins to turn their hand too soon in the downswing. This early rotation leads the hand to be rotated around the ball before the release. This minimizes the potential of the hand to be in this strong position as discussed above. In a worst case scenario, this will promote the bowler to leak the elbow out and “chicken wing” it. And, subsequently, the bowler loses leverage, ball speed, revolutions, etc. Worse yet, this eliminates the potential of generating different ball reactions by changing the axis rotation, at the release.

One method I teach to eliminate early hand rotation is to simply wait until your bowling hand reaches the intersection of your slide shoe heel. This requires patience and practice. Ideally, you want a short acceleration point just in front of the ankle. By focusing on the heel of the slide shoe, you will be able to approximate this position. By the time your thought is processed, you will be in front of the ankle. And, focusing on ignition at the heel will certainly yield a higher rev rate for those bowlers who initiate the release too soon and turn the hand in the downswing.

Closing thoughts

First and foremost, proceed with caution when attempting this method. Don’t go immediately to the strongest position. Start somewhere in the middle such as the middle finger in the 7 o’clock position. This will help you start the process.
Some readers will question why I didn’t include cupping the ball in the discussion above. In my opinion, the finger position is the most important element in increasing one’s rev rate. True, cupping the ball can add to the strength of the release. When you cup the ball, you place your fingers further under the ball. Paired with the strong finger position discussed above can lead to some additional revs. Specifically, by adding cupping, the fingers will travel from further underneath the bowling ball.

In addition, I can’t emphasize enough how important a proper fit is to being able to generate revolutions more smoothly and easily. Generating a higher revolution rate requires a relaxed hand. The number one enemy is squeezing with the thumb. This occurs when the thumbhole is too large, the hole shape is too round, and/or the pitch in the thumbhole has too much reverse pitch. In these situations, it is natural to apply more pressure with the thumb to secure the ball from slipping or dropping off the hand. And such a poor fit often leads to excessive squeezing and a reduction of the ability to get the thumb to exit the ball. This can also lead to wrist fatigue over a squad and a reduction of revs.

Be sure to visit an IBPSIA certified pro shop technician to fit you and drill your equipment. A fit with an accurate ovalized hole with proper pitches will allow a bowler to relax the hand and fingers. This will lead to a more explosive release transferring to a maximized rev rate.

You will be shocked at how much a good fit can make in increasing your rev rate. Follow the guidelines below to generate a higher rev rate.

Creating a higher rev rate reminders

1. Set the fingers in a strong position in the stance. Specifically, the RH bowler should have the fingers approximately in the 7 (ring) & 8 (middle) o’clock position while the LH in the 4 (middle) & 5 (ring) position. Be sure to support the wrist by placing the balance arm hand under the bowling ball or under the wrist.
2. Consciously keep the ring finger in this position through the pushaway and into the swing.
3. Be patient. Don’t do anything with the ball until your ball-side hand reaches the intersection of the slide shoe heel. At this point, you should accelerate.
4. Be sure you are fitted by an IBPSIA certified pro shop technician and your fit is current.

Elite bowling performance declines far less than other sports

A recent study published in the journal *Age and Aging*, in October 2007, reveals that performance declines in bowling are far less than other sports. Specifically, over a 50-year period, an elite (professional and master) bowler’s performance will decline approximately 8 percent. This decline in performance is far less than in other sports, such as those requiring significant cardiovascular endurance and muscular strength, which has a norm of a 10 percent performance decline for each decade lived in a person’s life.

The good news revealed is the fact that elite bowlers can maintain their best performances through the age of 45 before declines are first seen. This study demonstrates how important skill and technique are in the sport of bowling and that bowling is a sport in which a serious bowler can be competitive over a lifetime.

In *Declines in Ten-Pin Bowling Performance with Advancing Age*, researchers Allison Elizabeth Devan and Hirofumi Tanaka analyzed scoring data of 147 elite bowlers. Scores and ages were collected from the 2002 PBA World Championships and the 2002 Senior World Championships. Only bowlers whose age could be determined were used in the analysis. Ages were found on the PBA web site or through an Internet search.

In an effort to determine a relationship between aging and performance, a correlational and regression analysis was completed. In short, this explores a mathematical relationship between two variables. Through such an analysis, researchers explore how a dependent variable changes (scoring) as an independent variable (age) changes. In this case, the researchers are determining how dependent performance (scoring) is on age.

Researchers found that approximately 40 percent of the decline in performance was due to age. Yet, the decline in performance was less than 10 percent over a 50-year period. Specifically, from the age of 20 to 70, the average decline in performance was actually 8 percent, or from 216 to 188. This is significantly less than the decline in other sports, which normally see a performance decline of 10 percent each decade older an individual becomes.

The good news was that performance was maintained to approximately 45 years of age. This correlates well with the high performances of elite professionals like Pete Weber and Walter Ray Williams Jr. and others who continue to perform well on the PBA Tour well into their 40s.

Compared to other sports, which depend on cardiovascular endurance and muscular strength, bowling skill is dependent upon skill and technique. With these findings, it demonstrates that some sports can be played at a high level throughout a lifetime. The rate of performance decline in bowling is far less than other skill-based tasks performed by older adults. Specifically, skill and technique is important in the sport of bowling.

One limitation of the study is that only men’s scores were used in this analysis.