

## Ask-A-Coach

(Excerpts from the Gold Approach news letter)

**Q:** Where should my bowling ball's break point be on short and long oil patterns?

**A:** On shorter oil patterns (less than 36 feet), you want your break point further away from the pocket because there will be more than enough dry surface for the ball to recover and get to the pocket. On patterns longer than 42 feet – such as the 44-foot PBA Experience Shark pattern - your break point should be closer to the pocket because the ball won't have high friction area outside to recover.

**Q:** Is it always best to use the heaviest ball I can?

**A:** The key is to determine a ball weight that will work best for you. Don't think that you must use the maximum 16-pound ball. It is incorrect to assume that the heaviest ball will generate the most momentum going through the pins. The simplified equation for momentum below will show that this may not be the case:

***mass x speed = momentum***

Inserting the following values into this equation shows that a 15-pound ball may actually generate more momentum than a 16-pound ball:

***15 lbs. x 18 mph = 270***

***16 lbs. x 15 mph = 240***

In terms of longevity and wear and tear on your body, using a lighter weight ball might be a smarter option.

**Q:** Should I change my release on Sport Bowling patterns?

**A:** Yes. Sport Bowling conditions require a variety of releases and adjustments at the right time during the game. A good rule of thumb: on freshly oiled Sport Bowling lane conditions, your release should be end over end, letting the ball go smoothly onto the lane to get the ball into an earlier roll. As the oil breaks down and a track develops, more loft and side roll can be applied to get the ball through the heads and down the lane.

**Q:** How do I know if I have the right grip?

**A:** When a bowler has a poorly fitted ball, he or she will use **excessive grip pressure** to hold onto the ball during delivery. Symptoms of excessive grip pressure are fatigue, tension, squeezing and muscling the ball through the swing.

Evidence of excessive grip pressure is most recognizable in three key places during the swing: The ball start, the top of the swing and in the forward swing. Excessive grip pressure during the ball start will delay the arm swing and cause late timing. At the top of the swing, excessive grip pressure will cause you to pull down from the top causing poor body position and an inconsistent, weaker release.

During the forward swing or at the bottom of the downswing, excessive grip pressure will cause the player to hit up on the ball, again resulting in poor body position and an inconsistent release. If you notice you have symptoms of excessive grip pressure, talk to your coach and pro shop technicians to adjust your grip.

**Q:** I've heard people talk about "reading the mid-lane." What does that mean?

**A:** The mid-lane area is the point where the ball begins to lose speed – the beginning of the transition from skid to hook. In simple terms, your bowling ball travels down the lane in three phases: skid, hook and roll

The ball **skids** as it moves through the front part of the lane and has its highest speed, lowest revolution rate and maximum axis rotation at this point. The ball then moves into the **hook** phase, which is a sort of "fight" between the direction the ball was thrown and the direction it was spun. When the ball hooks, it has less speed, a higher revolution rate and less axis rotation. The final phase of the ball's travel down the lane is the **roll**, when the ball loses speed and gains revolutions for maximum hitting power.

When the ball loses speed too far down the lane, it hooks later and is harder for the bowler to control.

**Q:** How should I play on synthetic lanes?

**A:** Since synthetic lanes are harder than wood, balls tend to skid further down the lane, resulting in a much later ball reaction.

To compensate for synthetic lanes playing longer, shorter oil patterns generally are applied to that type of surface. On shorter oil patterns, the break point moves farther away from the pocket. Athletes move their feet and target inside on these conditions.

Usually the ball will overreact when it reaches the dry portion of the lane, making it difficult to get to the break point. Going up the boards will allow the ball to continue to skid as it comes out of the oil, adding the length needed to reach the break point.