

## Bill Spigner's Bowling Clinic

■ I have what commonly is called "tennis elbow," or in my case bowler's elbow. What causes this? How can I cure it? And what would reduce the chances of someone developing the problem?

Tennis—or bowler's—elbow is a stretching and inflammation of the tendons at the elbow. In bowling, the release can create the problem. At release point, the thumb comes out of the ball first, and the weight of the ball is transferred to the fingers, which impart lift and spin. This action pulls on the tendons all the way up to the elbow, and excessive pulling can cause those tendons to stretch and swell, creating bowler's elbow.

This has become one of the most common ailments in bowling today, as bowlers try to increase the power of their strike ball. To add power, the fingers must be under the ball when the thumb comes out, and most bowlers achieve that position by cupping the wrist. Unfortunately, most bowlers are ill-trained to use the technique, and their elbows and wrists are not prepared to support the additional stress that cupping the ball causes.

The best cure for bowler's elbow is rest. If you can't rest, one of the best products to reduce the strain is the Lou Scalia splint. Also, if you are using finger inserts, either remove them or use loose-fitting grips. The inserts help you get more lift on the ball, but they also can cause more pull on your tendons. You might also try using a lighter ball.

You should listen to your body's warning signs that an injury may be coming. Don't push when you're getting tired. Don't try to become a cranker in one night just because you want your ball to hook more. Bowling is like any other sport: Training is required to prepare the body to handle the demands the activity puts on it. The best way to prevent injuries is to take your time when developing a more powerful release.

If you are looking to increase your power, you might want to try a lighter ball. Bob Benoit, the first bowler to roll 300 on TV to win a PBA title, couldn't make any money on the tour throwing a straight, low-rev ball, so he went home to learn how to cup the ball to increase his revolutions and hook. Bob started out using a 12-pound ball, and he worked his way up to a 15-pounder. It took him hundreds of games over the course of about a year to develop his wrist and arm to support the release he wanted. The new release paid off, but it required lots of time

and effort—something to remember as you work on changing your release.

■ I am a 5'1", 104-pound female bowler who uses a 14-pound Blue Hammer with half-ounce positive side and thumb weight. I'm a steady 175-to-180 bowler, but I've been told that's my maximum, owing to the weight of my ball and the full-roller track I have. Would a reactive resin ball improve my striking power? I don't swing the ball, and I play a point shot, which has zero angle of entry.

The basic advantage to resin balls is that they slide longer and break sharper at the back end than traditional urethane balls. The ball finishes stronger and enters the pocket at a steeper angle, increasing carry. In your situation, changing balls can increase your ability to strike by creating a wider pocket, but the biggest improvement would be changing your full-roller ball track. You just can't have a strong finishing ball with a full-roller rotation. Find a good coach and put some time into it—it will be well worth it.

As for the weight, you can average above 180 with a 14-pound ball, but you have to have the right speed and revolutions, and you also need the ability to play the lane according to its conditions.

If you decide to stay with the full-roller, a resin ball can give you a stronger finish. However, a full-roller will limit how the ball can be drilled. Most of the high-performance resin balls come with drilling instructions, and I would recommend that you tell your pro to follow these directions when you decide which resin ball you're going to buy.

## ■ Could you tell me how to figure out the speed of my ball?

All you need is a stopwatch and a friend. Have someone time the ball from when it leaves your hand to when it reaches the headpin. To ensure accuracy, make sure the person doing the timing stands a few lanes away at the foul line so he can get a side view of your release and start the watch at the right time.

Now it takes a little basic math. Say your ball takes 2.9 seconds. It's 60 feet from the foul line to the headpin, so if the ball reaches the headpin in 2.9 seconds, it's traveling a little more than 14 mph. How do you know? Remember: Rate equals distance over time. A ball that travels 60 feet in 2.9 seconds has a rate of 20.69 feet per sec-



Bill Spigner has won three national PBA championships and seven regional PBA titles. He is co-owner of Hawthorn Lanes in Vernon Hills, Ill., and teaches at Pro Bowling Camps summer camp in Connecticut.

ond (60 divided by 2.9). Multiply by 3,600 (the number of seconds in an hour) to get feet per hour, then divide by 5,280 (the number of feet in a mile) to get mph. More simply, divide 40.91 (60 times 3,600, divided by 5,280) by the number of seconds it takes to hit the headpin: 40.91/2.9 = 14.1 mph.

Here are the speeds for various times:

2.92 seconds: 14 mph 2.73 seconds: 15 mph 2.56 seconds: 16 mph 2.41 seconds: 17 mph 2.27 seconds: 18 mph 2.15 seconds: 19 mph 2.05 seconds: 20 mph

Most professional bowlers roll the ball in the 17- to 19-mph range. Hard speed would be 19 mph and up, strong speed 17 to 19 mph, medium speed 15 to 17 mph, tempered speed 13 to 15 mph, and drag speed 12 mph and under. With today's lane surfaces and reactive urethane balls, a strong ball speed is recommended for the higher-average bowler. Bowlers who use a medium speed still can be very successful, but these players are more sensitive to lane conditions, especially when their ball speed drops below 16 mph. Don't be too upset if your speed is not very high—you still can average 175 to 190 with a 15-mph ball. ●

Bill Spigner welcomes questions from readers and will answer as many as possible in this column. Mail your questions to: Bill Spigner, Bowling Digest, 990 Grove Street, Evanston, IL 60201.