Dynamic Chiropractic

SPORTS / EXERCISE / FITNESS

In the Fast Lane -- Treating Pro Bowlers

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Bowling started in this country around 1623 on Manhattan Island by the Dutch settlers. The game was called nine pins and was played outdoors, with the pins arranged in a diamond formation. The object was to get all the pins down with one throw. People enjoyed the sport, but some saw the financial opportunity it presented as a bettor's game. The Puritans didn't relish the financial aspect of the game, so they outlawed nine pins.

The game was prohibited until a bowler added a 10th pin in the mid-1800s and logically renamed the game ten-pins. The game was quietly resumed, and started to enjoy increased popularity. But it wasn't until 1895 (seems like something else went on that year) that the American Bowling Congress was organized in New York and the rules standardized.

In April of 1992, Dr. Garth Edwards of Richton Park, Illinois, who treats several members of the Ladies Professional Bowlers tour, was headed to a tournament site. I asked if I could tag along. I spoke with some of the women bowlers and someone said, "Wouldn't it be great if we could have chiropractors at all the professional events"? So I started trying to line up local ACA Sports Council members, especially CCSPs (Certified Chiropractic Sports Physicians) to work with the ladies when the tour came to their towns. In 1993, I started working with the PBA and the Senior tours.

Most of the injuries we see in professional bowling are caused by overuse. The typical professional tournament requires bowlers to roll three "blocks" of six games each in qualifying rounds; then the field is cut to the top 24. During a 36-hour period the remaining pros roll three blocks of eight match games in which the winner of each match receives 30 bonus pins. Rolling a 12-16 pound ball for a potential 42 games over 4-5 days can add a lot of stress to a body.

Prior to working the event, some of the doctors will ask me what they will have to evaluate and/or treat. What I explain to them is that bowling is an asymmetric, body sport. By that I mean, you don't see a bowler roll six games with their right hand and decide they are too sore or fatigued and will now roll with the left hand. They need to be able to transfer the power from their legs to the ball, and that involves using the whole body.

Professional bowlers are like many other athletes -- overused and underconditioned. Every bowler's goal is exactly the same: to get the most amount of pins to fall with the least amount of rolls. Yet show me any two who bowl exactly the same. Just like in our offices or any other sport, we treat individuals. When watching the mechanics of bowling, most obvious is the neck, shoulder, elbow, wrist, and hand chain. Some bowlers don't move their head much; others will abruptly rotate it to try to develop more power or speed. Some bowlers "open up" their shoulder on their approach, which stresses the shoulder's external rotators; others bowl more straight on, which has a tendency to stress the postdeltoid and latissimus. Many bowlers have trigger (active and/or latent) points in the supraspinatus, infraspinatus, teres minor, upper trapezius, and subscapularis.

The elbow and wrist can be affected by how much a bowler hooks the ball. The more hook and pronation, the more strain on the pronator teres, and pronator quadratus. There are at least three different wrist positions in which the ball can be delivered. One is where the wrist is bent

backward, to "kill" the hook; another is normal (neutral); and finally there is the cupped wrist, to promote the hook. All three positions can contribute to wrist and elbow subluxations. The fingers occasionally develop stress fractures. Trigger points and/or tender points can be found throughout the forearm muscles. Some bowlers will choose to wear elbow and/or wrist supports. The knees can give bowlers problems that can be due to a multitude of reasons: the approach surface, the shoes, knee valgus, varus, the amount of pronation, supination, forefoot varus, and valgus, etc. In my opinion many would do well with custom orthotics. Naturally, the feet and knees can positively or negatively affect the bowlers low back and S-I regions.

We also have to consider the alley conditions. Are the approaches on the lanes synthetic or wood? When the approaches are synthetic and the bowling alley is humid, shoes have a tendency to "stick" to the surface. In some instances, this condition aggravates an overused, understretched and weak low back and S-I region. If the bowler is right-handed, I usually find the opposite S-I subluxated and the paraspinal and psoas muscles hypertonic. This sport combines bending and twisting, repetitive motions that can aggravate or precipitate a low back condition.

I have spoken to many of the bowlers, and few are on a year-round fitness program. Bowlers, like all other athletes, need strength, flexibility, and endurance. Bowling is a sport where some of the participants smoke between frames, and we all know the correlations between smoking and low back pain.

Prehabilitation should be part of any athlete's lifestyle, especially when their livelihood depends on it; when it is not, somewhere down the road, rehabilitation will be.

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