

THE “PRONATED” BACKHAND

The “Pronated” Backhand (as I call it) is becoming a staple shot in the advanced wheelchair game. The stroke is performed by ‘flipping’ the racquet so the back of the hand is in front of your face (palm turned outwards). A forehand or continental grip is used and the ball is contacted on the backhand side of the body with topspin.



The first time I saw the shot, my reaction was, “you can’t hit a shot like that!” However, as I observed the top players, and started to understand some of the unique technical demands of wheelchair tennis, it started to make sense.

Tennis is an “Open Skill”

In the science of Motor Learning, tennis is classified as an ‘Open Skill’. This means that technical skills must constantly be adapted to an ever-changing situation. For example, even in able bodied tennis, the typical forehand technique cannot be used when the ball is harder, higher, shorter, etc. It must be modified for the situation to be effective.

The goal of traditional tennis instruction was to conform students to an idealized model stroke. Since tennis is an open skill, this is a flawed process when coaching able bodied players, and even worse when applied to wheelchair players. Effective and efficient open skill technique is based on principles that need to work in all the situations a player encounters in tennis.

A challenging situation

Obviously, the technique of the Pronated backhand was not created by coaches. It evolved as a solution to a problem top players faced when competing. The problem could be phrased like this: *"I need to be able to take a ball that is higher than ideal on the backhand side and send it back in a way that doesn't give my opponent an advantage."*

One common solution was to slice the high ball on the backhand. A disadvantage of that option is the difficulty in putting pressure on the opponent. If not done well, the ball has a tendency to 'pop-up' giving the opponent the advantage. Even if it is hit well, a slice with it's lower trajectory tends to stay low, bouncing at a height just right for a wheelchair opponent. In addition, the difficulty of generating good racquet speed on a high slice meant the pace of the shot was not very challenging and it may land short.

A topspin backhand did not fully solve the problem either. An appropriate low-to-high racquet path is very difficult when the ball is high. Another common option was to simply 'push' the ball back high and flat. All these challenges add up to a weak reply when receiving a high ball to your backhand.

Pronated Backhand advantages

In contrast to a traditional topspin backhand, flipping the racquet face over allows a much more low-to-high racquet path because of the addition of the forearm & elbow segments. That path can be maintained in many more ranges than a topspin backhand (which can only produce an appropriate low-to-high path in a very small impact point range). In other words, if the ball is higher, closer to the body, or further away, a steep low-to-high path can still be performed with the Pronated Backhand technique. This is a tremendous advantage for a wheelchair player who needs strokes that work in many 'emergency' situations.

With the racquet path advantage comes the added bonus of being able to accelerate the racquet through the shot. Having a fast racquet speed will make the shot more challenging (because of pace, added height and spin) and allow the player the psychological advantage of remaining aggressive on the shot.

Learning Progressions

Here are some suggested steps that have been used successfully to help players master the Pronated Backhand. These steps present the technique in the most common situation it occurs, receiving a high backhand in a crosscourt rally.

Step #1: Decision-making:

The first step required is to teach to identify the right time to use the shot. By deciding quickly if it is the appropriate time, the player can prepare early. The coach can have the player call out cue words to identify the right time. When the ball is lower to the backhand, the player can call, "back" (to signal a regular backhand). When the ball is higher, the player can call, "flip" (to signal turning the racquet face over).

Having the player call out the word allows the coach to observe when the decision is being made. For example, if the player cannot call the word before the ball bounces on their side, it may indicate they are not focussed on judging the ball. Progress the player from deciding before the bounce to before the ball comes over the net.

Step #2: Motor Pattern:

Once the player can quickly select the right time to apply the shot, the next step is to help them feel the correct movement. At first it may be very strange to hit the ball like this. A successful progression starts with the feeling of the forearm being pronated. **The ability of the player to feel and control the racquet path and angle in this 'upside-down' position is critical.**

(a) Palm Paddle: Players can grasp this feeling better if a 'Palm Paddle' is used (see photo). This light wooden paddle is held against the palm of the hand by an elastic strap. They are very easy to make and invaluable for understanding the technique. The coach can feed the ball to the player who needs to feel how they can project the palm of their hand low-to-high up the back of the ball. Once the kinesthetic connection is made with the palm of their hand, the shot comes easier.



(b) Racquet: The player can then grip high up on the racquet with the palm of the hand against the throat (the index finger can be touching the strings as a checkpoint). The same low-to-high movement is used to give the ball topspin. The player now makes a kinesthetic connection with the palm of their hand and the strings. The grip is then gradually moved down the racquet until a forehand or continental grip is adopted (progress as fast as the player can handle). The goal is to feel the impact and get used to controlling the racquet angle when it is in this 'upside-down' position.

Step #3: Tactical objective:

The third step is to use the technique to challenge the opponent. The tactic is to send a high topspin shot with authority to the opponent's backhand side. The desired effect is to put the opponent in the same predicament (receiving a high ball to the backhand). This will hopefully produce a weak or short reply that can be taken advantage of. It is also very useful to teach the next shot after the pronated backhand to package it into a successful tactical pattern.

Conclusion

The Pronated Backhand was created by top wheelchair players to master a challenging situation. Coaches can 'reverse engineer' the shot and introduce it as another option for players at many levels. It is important to always teach shots in a tactical situation so they can be more easily integrated into real match play.