The OPEN-STANCE Backhand

Over the past 20 years the game of tennis has changed dramatically. Players are bigger, stronger, and better athletes than ever before. In addition, improved training methods and advances in racket technology have challenged players to adjust tactics and technique in order to be successful. The open-stance backhand is one of the latest evolutions in technique. In order to explain the evolution of the open-stance two-handed backhand, appropriate shot usage, and the technique of the shot, we have featured sequence pictures of Martina Hingis and Venus Williams, who possess two of the best two-handed backhands in the women's game.

The open-stance backhand has evolved for the following reasons:

1. To help players deal with the increased power on serves and groundstrokes by creating a loading of the large muscle groups during the preparation phase;
2. To produce an aggressive counter-punching shot and/or neutralizing shot when rushed by quickly loading the large muscle groups. The open-stance footwork helps stabilize the lateral movement for optimum balance;
3. To shorten the recovery time after the hit;
4. To have the flexibility to produce a variety of shots (e.g., angles, counter-punching drives, neutralizing loops) that would otherwise force the player to use a slice and/or hit a defensive reply.

The open-stance backhand is most commonly used on 1) return of serve; 2) powerful shots out wide to the backhand (not on the dead run); and 3) passing shots when rushed.

The following sequences represent one of the most common scenarios in which the open-stance backhand is used. Hingis and Williams are pulled out wide by a powerful shot yet not on the dead run, and they want to neutralize the opponent or even hit an aggressive shot and quickly recover back into the court.

Players with one-handed backhands are also using the open-stance, although not to the same extent. It should also be noted that the classic "squared stance," stepping forward and transferring the weight into the shot, is the footwork of choice by virtually all top professionals in most situations. This shot is used particularly when players have time and want to hit their most aggressive shots.

At what stage of development it should be taught is debatable. However, it is advisable that all young players still be taught the classic "squared stance" for the backhand as their primary footwork.

Nick Saviano is Director of Technical Development for USA Tennis Player Development.

PHOTO #1



- Hingis starts her preparation with the racket head above the wrist using a loop with her backswing. Williams starts her preparation with the racket head below the wrist using a straight back and slightly downward backswing.
* Hingis (5'7") displays perfect posture and balance during the preparation phase. Her shoulders and back are relatively straight and her head is up as she tracks the ball. Williams (6'1") who moves very well for someone of her height tends to crunch her shoulders and bends over at the waist. This is very common with taller players. It is important to note that Hingis has most of her strength in her lower body, whereas Venus is stronger in her upper body. This becomes more apparent as they progress through the sequence.

* ***Denotes fundamentals of technique.***



PHOTO #2



- At this stage both players have determined that they are not going to have time to get to the on-coming ball, set up, and transfer their weight into the shot. They are now preparing their feet to set up for the open-stance backhand.

* Notice how both players are rotating their upper bodies (front shoulders and knee bend). This begins the storing of energy in the large muscle groups of the legs, hips, torso, and shoulders. This generates angular momentum which helps players deal with powerful shots and provides the ability to hit a good neutralizing—and in some cases offensive—shot even though they are rushed.
* Both players are in the process of positioning the left (back) leg to a comfortable hitting distance from the oncoming ball.
* The ball has just landed and both players are virtually ready to address the ball due to early preparation.

PHOTO #3



* Notice the large step out with the back leg. This is done for two reasons. First, the leg is planted in a position that is a comfortable distance from the on-coming ball, allowing for a normal swing through the hitting zone. Second, the wide step acts as a stabilizer to the lateral movement and to facilitate balance by establishing the center of gravity (which is low to the ground) in the middle of the wide stance. This enables the players to have as little movement as possible on the hit, making it easier to control the shot.

- Hingis takes a shorter backswing than Williams. This is a difference in style, however the shorter backswing will facilitate more control and the longer backswing will generate more power.

* Both players are bending the left leg, rotating the hips, and turning the shoulders even more as they maximize the storing of energy for the hit.





PHOTO #4



* One of the signs of a great player is the ability to maintain dynamic balance, which both Hingis and Williams exhibit here, even when rushed.
* Both players have their head in a perfect hitting position, which is chin up, eyes focused on hitting zone, and head still on contact.
- Their body position, in particular their open hips, allows them to produce a number of different shots (e.g., down the line, crosscourt, or loop). A closed-stance would lock the hips and inhibit them from hitting crosscourt or a loop shot effectively.
- Both players have a strong lateral momentum pulling them toward the sidelines. The center of gravity is quickly shifting above the players' left legs. Consequently, they could lose their balance if they don't adjust their feet. Hingis already has started to do a hop/half recovery step with the left leg.

PHOTO #5



* In this photo, Hingis does a hop/half recovery step with the left leg, and then plants that foot and begins to recover. This move saves the players a step and a half on the recovery from the standard hit on the front leg.
* Notice how Hingis' center of gravity is back in the middle of her base of support (both feet).
* Williams maintains beautiful posture. Her left leg is in the air as she is in the process of the hop/half recovery step.
- Hingis' head is still slightly past contact as the racket accelerates forward. Stillness in the head during contact helps control the upper body. It also generates more racket head acceleration by creating a stop action for the shoulders and torso. Additionally, it helps a player stay focused on the shot as opposed to rushing and looking down the court.
- With the open-stance backhand on the wide balls, players will stay down during and after the hit. This is contrary to the forehand where most players will explode up with the legs into the shot, propelling them off the ground.





PHOTO #6



- Both players display a classic wrap around follow-through.
- They have planted the left leg and are starting to recover.
* Both players are maintaining excellent balance. However, Hingis' lower body strength (ankles, quadriceps, and gluteus maximus) is absorbing the lateral momentum. This enables her to maintain upper body balance with minimal stress on the ankle and knee joints.
- Williams, who is considerably taller than Hingis, is showing good form but is not yet ready to explode in the opposite direction.

PHOTO #7



Photos by Mary Schilpp

- Hingis already has her racket back out in front of her body and is "out of the blocks" in full recovery while maintaining perfect balance.
- Williams also displays good upper body posture and overall balance as she pushes off and recovers for the next shot.



The Open-Stance Backhand





Two-Handed Backhand with "Squared Stance"

Style Versus Fundamentals

This issue's article on technique examines the two-handed backhand with the "classic squared stance." Squared stance in this case means that the player has enough time to set up for the shot and step almost straightforward toward the net. We have chosen three of the best two-handed backhands in the pro game: Lindsay Davenport, Jan-Michael Gambill and Martina Hingis. It was decided to use three sets of pictures to better illustrate a major point about technique style versus fundamentals of technique.

The key point to focus on is that the manner in which a player takes back the racquet in many cases is a function of style and may not be a fundamental. Gambill takes the racquet straight back and low. One would assume that a two-hander who takes the racquet back low would have difficulty on the return of serve and high balls. In both cases, however, Gambill hits these shots remarkably well. Davenport, on the other hand, takes a loop on the backswing, but has the racquet face parallel to the ground as she takes it back. In addition, she actually opens her left hand and stops gripping the racquet as she is taking it back, and then re-grips the racquet right before accelerating forward. That's extraordinary, yet she hits it incredibly well. Hingis represents a more conventional style with the loop backswing.

While examining these three very different backswings, do not lose sight of the fundamentals they have in common. These commonalties along with the style differences will now be examined in the sequence of pictures.

Nick Saviano is the Director of USA Tennis Coaching Education.







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5 6 7

Top to bottom: Lindsay Davenport, Jan-Michael Gambill and Martina Hingis.

Picture 1

- Standard backhand: The players are not rushed and are positioning themselves for a standard two-handed backhand.
- Posture & Balance: All three possess good posture and dynamic balance as they approach the ball.
- Preparation Style: Notice the different preparation styles: Hingis with racquet head cocked up; Davenport with the racquet parallel to the ground; and Gambill with low "straight back" backswing.

Picture 2

- Backswing: This set of pictures beautifully illustrates the distinct differences in racquet backswing.
- Davenport: Notice how she is opening up her left hand on the grip. This is extremely unusual—definitely a personal style.
- Gambill: He takes the racquet down and back.
- Hingis: Already "lined up," she has planted her back right foot before she transfers her weight into the shot.

Picture 3

- Body Position: All three have now "lined up" the body in position for the shot. Each have planted their back foot and are about to transfer their body weight into the shot. This will generate significant ***linear momentum***.
- Shoulders: All three demonstrate early shoulder rotation. Notice that Hingis and Davenport both approach the shot with relatively level shoulders, whereas Gambill's front shoulder is dipping down slightly.
- Davenport: She is barely holding the racquet in her left hand!

Picture 4

- Backswing: This set of pictures shows the point where they have taken their racquets all the way back. Hingis and Gambill have a short, compact backswing, while Davenport takes a considerably longer swing at the ball.
- Weight Transfer & Balance: The players have completed their weight transfer to the front foot, and are displaying excellent balance as they start accelerating their racquet forward for the shot.

Picture 5

- Head Position: Hingis and Davenport keep their head up and pointed in the direction of contact, which is technically optimal. Gambill's head is pointed in the direction of contact, however, on this particular shot, his head is dropping down slightly, which can affect his overall balance.
- Contact Point: All three will contact the ball out in front of their bodies. Hingis, however, has a slightly more extreme backhand grip and therefore, will contact the ball slightly farther out in front than either Davenport or Gambill.

Picture 6

- Follow-through: Hingis and Davenport have a similar follow-through in that the non-dominate hand has pushed the racquet head "through and forward" more aggressively. Gambill's follow-through is somewhat laid-back. This is probably a function of style, and of the two women hitting more aggressive shots.
- Center of Balance: All three players have transferred their weight completely off of their back foot. Consequently, their center of gravity is directly over their front foot.

Picture 7

- Follow-through: The three players end the stroke with a classic wrap around the neck.
- Momentum: Hingis appears to have hit a more aggressive shot than the other two, and her weight and momentum are still coming forward at this stage.

Neutralizing with the Two-Handed Backhand

by **Nick Saviano**

There exists a misconception among many of our young aspiring players in the United States that the top pros in the game "knock the cover off the ball" on almost every shot. They think, "offense, offense, offense." On the other side of the coin, our young players sometimes understand that there are times when a desperate situation dictates that they should play a defensive shot and they grudgingly comply. However, tactically their perception centers on only these two types of shots! This is a major mistake. The two most frequently played shots on the professional tour are neither offensive nor defensive. They are what I call a "building shot" and a "neutralizing shot."

A building shot is intended to put the player in position to take control of the point or to win the point on the next few shots. Often the building shot is the first in a particular pattern or combination of shots. The player is not quite in an offensive position but is in good shape to control the next shot. The neutralizing shot is a situation in which the player is responding to a quality shot by the opponent. Here the opponent may have hit a ball with good pace, depth or placement and is in too difficult a position to try to hit a forcing shot. The intention behind hitting a neutralizing shot is to try to counter an opponent's shot with one that will neutralize their momentary advantage.

There are many misconceptions about the neutralizing shot. One of the biggest is that when pros hit the topspin neutralizing shot they execute this shot with great racquet head speed (on most occasions) and with subtle adjustments of more spin and height over the net, which often gives the impression of a far more aggressive shot. These subtle differences often go undetected by young players, particularly when watching on television. So one of the responsibilities of coaches across the country who are working with aspiring juniors is to make sure that they understand and learn all four types of shots: offensive, building, defensive and neutralizing.

In this article, we will focus on one type of a neutralizing shot executed with the two-handed backhand. We will examine the tactics employed when the pros choose to play this shot and how they might make technical adjustments to a shot by their opponent that requires they hit a neutralizing shot.

We have selected three players with excellent two-handed backhands, Jan-Michael Gambill, Nicolas Kiefer and Kim Clijsters to illustrate our point. Gambill and Clijsters are seen from a frontal view, with Kiefer hitting the same type of shot from the side.







Top to bottom: Jan-Michael Gambill, Kim Clijsters and Nicolas Kiefer.








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In the first two pictures, all three players quickly recognize the quality and depth of their opponent's shot. They have already determined at this stage that they will be hitting a neutralizing shot, which is apparent by the fact that as they execute their unit turn they are simultaneously backing up away from the baseline to deal with this high-quality shot from their opponent. In the case of Clijsters and Gambill, their opponent has hit a deep looping shot against them. Kiefer appears to be handling a shot that was hit with more pace. This is evident by his footwork; he is taking one big quick step backwards and lowering his center of gravity to deal with a deep hard shot. It is also interesting to notice the three different types of racquet preparation. Gambill takes it down low, Clijsters loops it and Kiefer takes it straight back. As mentioned in previous articles, these differences are a function of style, not fundamentals.



Notice how far the players have moved back from the baseline to address the ball. The third photo of Gambill clearly shows how deep his opponent has hit the ball. Also, look at the beautiful early preparation being displayed. There is a full rotation of the shoulders, with the racquets almost completely taken back well before the ball is upon them. However, still photos can be deceiving. Their racquet preparation is all within the flow of the stroke; they are not completely stopped as they wait for the ball.



In the fourth frame, notice how their weight is completely off their front foot. In fact, they are leaning backwards away from the net. Kiefer and Clijsters are really dropping the racquet head well underneath the ball, which indicates that they will be hitting a shot with considerable topspin. This backing away from the baseline and leaning back allows for some of the pace of their opponent's shot to dissipate and lets the ball bounce up into their "strike zone." This enables them to hit a neutralizing shot that has good net clearance and topspin. If they had stayed on the baseline, this type of shot would have almost been impossible to hit.





You can tell from the extreme low to high swing path and the flight of the ball leaving their racquet on the last three frames that they have hit a high-percentage topspin shot with considerable net clearance. In addition, notice the amount of energy all three players are exerting, which indicates tremendous racquet head speed. Gambill and Kiefer have used so much ground force (which means they are pushing up with their legs, in this case their back leg) that they are thrust off the ground. To the untrained eye, they might appear to be hitting an aggressive shot, but in fact, they are executing the neutralizing shot to perfection.

TECHNIQUE

Two-Handed Backhand: Open and Square Stance

by **Paul Lubbers**, Ph.D., Director, Coaching Education, and **Anne Pankhurst**, B.A. (Hons.), Administrator, Coaching Education

In this article, we examine two stances commonly used when executing a two-handed backhand. In the sequences, you will see Rafael Nadal and Maria Sharapova hitting both a square-stance backhand and an open-stance backhand. The statement, "Tactics Drive Technique" has never been truer than when looking at why a player chooses to use one type of stance instead of another.

Observe the two players as they hit the square-stance backhand (top sequence for each player). They are both receiving a ball that is coming to them with minimal arrival angle, a low trajectory and off a bounce well in front of the baseline. The tactics in this situation are very clear to our players: move forward and take the ball early. The best backhand stance to hit from in this case is a square-stance backhand. Hitting a backhand from the square stance combines both angular and linear momentum (mostly linear in a square stance). It allows the players to use the kinetic chain in a sequential manner where the power is transferred up from the ground through the segments (legs, hips, trunk, shoulder, arm, racquet) as well as using linear momentum, which can be seen as the players transfer their weight and step forward into the shot.

Now, look at the next sequences that feature the open-stance backhand (bottom sequence for each player). Here, we find Nadal well in back of the baseline preparing to hit an incoming ball with a high trajectory and a lot of topspin (a high, heavy ball). Sharapova, on the other hand, is hitting a fast incoming ball that lands deep in the court with a low trajectory and has her in a wide position on the ad court. In both of these situations, the use of the open-stance backhand gives each player certain advantages. Nadal uses the open stance to generate huge amounts of angular momentum, which in turn helps generate great racquet speed so that he can return an aggressive shot from a position deep in the court. Sharapova, however, uses the open-stance position because she does not have much time to set up for the shot and she needs to quickly develop racquet head speed to deal with the powerful incoming ball. In Sharapova's case, the open stance provides her with a quick one-step set-up to load the legs, where the kinetic chain is activated and then released through the segments using mostly angular momentum.

As noted earlier, the development of both linear and angular momentum starts from the ground up. The ground reaction forces are transferred through the kinetic link system all the way up to the racquet. As you examine the pictures, note the similarities between the open and square stances. In both situations, the unloading phase of the stroke (forward swing) features knee extension, hip rotation, trunk rotation and forward arm swing (shoulder rotation). A wide base is also important, as it helps the player maintain balance and creates a stable platform, which is used to set in motion a ground reaction force—the catalyst for generating momentum.

As we can clearly see from the sequence pictures, today's top players possess the ability to hit different types of backhands based on the different tactical demands they are faced with in a point. Players need to make the correct decision on how to set up for the shot, and they need to possess the technical skills to execute it. Both tactical and technical skills need to be taught in a systematic manner based on the player's age and stage of development. The message is therefore very clear: As we teach our players the stances needed to be successful on the court, let's not overlook the basics of teaching the movement patterns of the kinetic chain. Learning to control the proper use of all the major muscle groups so that forces can be transferred sequentially from the ground up is essential to mastering both stances and should be part of your daily training with your players.





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FOUR SEASONS
RESIDENCES

WARSTEINER
FOUR SEASONS
RESIDENCES

WARSTEINER

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MATCH TIME

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