How to practice the return and +1s in women’s professional tennis

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ABSTRACT
The aim of this article is to present stroke placements of the return, the 3rd stroke and 4th stroke in professional women’s tennis. Based on recent scientific insights (Born et al., 2021), training recommendations as well as practice patterns will be derived from these results. For returns, training recommendations include aiming to the middle zones and longer than the service line. For 3rd strokes, it is recommended to e.g., train hitting into the c-zones, whereas for 4th strokes this is e.g., hitting more frequently to the backhand or, respectively, the weaker side of the opponent. Practice patterns are exemplified for each stroke.

INTRODUCTION
The extended game opening, consisting of the serve, return, 3rd and 4th stroke is a crucial situation in tennis (Born, 1996; Born, 2017; Weber & Born, 2012). This is because every point clearly has to start with a serve which, in most cases, is followed by a return. Moreover, 70% of all points are already played after four strokes (Born, 2017; Fernandez-Fernandez et al, 2007; O’Shannessy, 2016; Weber et al., 2010; Weber & Born, 2012). Since tennis-research has widely addressed the serve (i.e., Born, 2017; Grambow et al., 2021; Meffert et al., 2018; O’Donoghue & Brown, 2008), this article focuses on the practice of the return, 3rd and 4th stroke, particularly with respect to professional female tennis.

Several factors are important for a great successful stroke: speed, spin, percentage, placement. Hereinafter we will focus on the latter. According to the tactical principles the stroke placement into certain zones of the court can be used to move the opponent sideways out of the court, push her back and, thus, away from the baseline or put her under time pressure (Crespo & Miley, 1998; Ferrauti, Maier & Weber, 2014; Tiley, 2002; Schönborn, 2012). Also, a misplaced stroke (e.g., too short) can bring players in a difficult situation.

SAMPLE
28 female professional players (mean age: 23.5; mean WTA ranking: 253.3) on the WTA and ITF Tour in the years 2018-2020 were part of the sample.

RESULTS ON STROKE PLACEMENT
Return placement
According to the return placement of the players in the sample (Figure 1a; Born et al., 2021), the following training recommendations can be derived:

- Hit the return to the middle zones and longer than the service line (zones 1b, 2b, 1d, 2d).
- Hit the return more frequent to the backhand/weaker side.

Since a deeper return is considered to be more effective, the third training recommendation for the return is:

- Hit the return to the deeper zones (1b, 2b) while maintaining a high in-percentage.

3rd stroke placement
- The 3rd stroke placement of professional female players is shown in Figure 1b (Born et al., 2021). Accordingly, training recommendations derived are: Hit the 3rd stroke into the outer zones and longer than the service line (zones 1a, 1c, 2a, 2c).
• Hit the 3rd stroke more frequent to the backhand/weaker side.

It can be argued that many of the 3rd strokes that landed in 2d were intended to go to 2c since the c-zones are ideal to move the opponent out of the court while keeping up a high ball velocity. Hence the third training recommendation on where to place the 3rd stroke is:

• Hit the 3rd stroke to the c-zones, especially to zone 2c while maintaining a high in-percentage.

**Figure 1b. Target zones according to training recommendations for the 3rd stroke (b). The darker the green, the more frequented the zone is.**

### 4th stroke Placement

The 4th stroke placement of professional female players is, at least in part, correlated to different 3rd stroke placements (Figure 1c; Born et al., 2021). But, since the 4th stroke is more often played out of a defensive situation than the 3rd stroke, its stroke placement is more spread-out. Accordingly, the training recommendations for the 4th stroke are:

• Hit the 4th stroke longer than the service line and when tactically necessary away from the lines (2d and 1d).
• Hit the 4th stroke more frequent to the backhand/weaker side of the opponent.
• When tactically appropriate, hit the 4th stroke to 2c while maintaining a high in-percentage.

**Figure 1c. Target zones according to training recommendations for the 4th stroke (c). The darker the green, the more frequented the zone is.**

Keep in mind that aiming closer to the lines could increase the number of errors. Find the best solution of maintaining a high in-percentage while hitting into the tactically smart zones.

### PRACTICAL APPLICATION EXERCISES

It is essential to not only know about the best placement for the different strokes (i.e., target zones) but to know how to best implement this knowledge into everyday practice. Therefore, specific practice patterns are presented below. All practice patterns are described for two players and one coach but can easily be adjusted to less or more players. Firstly, the respective practice pattern focuses on a high stroke repetition to achieve stability (Ferrauti, Maier & Weber, 2014). Secondly, the focus shifts to applying the stroke in the extended game opening to simulate specific competition affordances (Krause, Buszard, Reid, Pinder & Farrow, 2019). Always keep in mind that a good placement is only as good as the in-percentage with which the strokes are executed; thus, aim for more than 80% in (Born et al., 2021).

**Return**

In general, the return should have a much higher priority in practice than it usually has, since it is one of the most played and, thus, important strokes in a tennis match. Accordingly, whenever you practice serves add the return with respect to specific training recommendations.

**Exercise #1:**

Player 1 is returning, coach or player 2 are serving. Player 1 has one target zone for her returns (Figure 2a). While the serve direction is known at the beginning, this advantage is taken away when the exercise advances. Count the returns (out of ten) that are in the target zone. To ensure a high number of repetitions, the returning player returns every serve regardless whether the serve is in or out.

**Figure 2. Return exercises #1 (a) and #2 (b).**
Exercise #2:

Setting as in exercise #1. The target zone is more detailed now (Figure 2b), so the returning player gets specific tasks where to hit her returns to, e.g.: “Aim to the backhand side (2b, 2d), “aim to the deeper zones (1b, 2b),” or “aim to a specific zone depending on the serve direction” (e.g., wide serve from deuce → return to 1b/1d).

Exercise #3:

Setting and tasks as in exercise #1 or #2 but the point is played out. When hitting the return into the required target zone the returning player wins one bonus point.

3rd stroke

The 3rd stroke is also a crucial part of the extended game opening but is still also often neglected regarding specific exercises within practice sessions. The following exercises are easy to implement into practice and will increase the quality of the 3rd stroke enormously.

Exercise #1:

Player 1 imitates a serve motion without actually hitting a ball. The coach feeds the ball from the return position (Figure 3a) and puts the player in different situations for her 3rd stroke by varying speed, spin, placement and height of the ball. The players get specific target zones to aim at: in the beginning to the outer zones behind the service line (1a, 1c, 2a, 2c) and subsequently to more specific targets like the outer zones on the backhand side (e.g., 2a and 2c) or the c-zones.

Exercise #2:

Player 1 is serving to player 2 while the coach stands behind player 2 to feed a ball instead of the return whenever necessary (Figure 3b). The players hit serve, return, 3rd and 4th stroke into the same target zones as in exercise #1. The 4th stroke provides instant feedback of the quality of the 3rd stroke.

Exercise #3:

The players play points, and the server wins bonus points for hitting the 3rd stroke into the required target zone.

4th stroke

Although the 4th stroke is the “last” part and the least played stroke within the extended game opening, it is still the 2nd stroke of the returning player, thus, important and should be practiced in combination with the return (Born et al., 2021).

Exercise #1:

Player 1 is in the return position with player 2 waiting behind her (Figure 4). The coach serves and then feeds another ball to the player for her to hit the return and the 4th stroke. By doing this the players get a lot of return and 4th stroke repetitions and the coach is able to control what kind of return and 4th stroke they have to hit. The target zones for the 4th stroke differ depending on the tactical situation: In a neutral or offensive situation, players should aim for 2c, whereas in a more defensive situation, the first target should simply be longer than the service line.

Exercise #2:

The players play points against each other. The returning player wins bonus points either when hitting the 4th stroke into one of the target zones or only when hitting in the tactically smart target zone (e.g., offensive situation → 2c).

Combined exercise:

Two players play rallies starting with serve and return. For each stroke (including the serve) there are specific target zones to which the players should hit the respective strokes (e.g., serve wide, return to middle zones behind service line, 3rd stroke to 2c, 4th stroke to backhand side longer than service line). For every target hit, players earn one point, for every combined hit (e.g., return and 4th stroke both hit the target) three points. Either the players count their points as a team or against each other. Note: playing only four-stroke rallies instead of the whole rally causes more repetitions of an extended game opening in a given time and, thus, sets the focus respectively.

CONCLUSIONS

Research shows that there are certain recommendable target zones on the tennis court with respect to the different strokes of the extended game opening. This is e.g., returning to middle zones behind the service line, hitting the 3rd stroke to outer...
zones and the 4th stroke longer than the service line to the opponents’ backhand or weaker side respectively. Coaches and players should be aware of this and implement specific practice of the stroke placements in their everyday practice.

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