

# Periodisation for Professional Female Tennis Players

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## INTRODUCTION

The different articles in this issue of ITF Coaching & Sport Science Review have highlighted the uniqueness of tennis with respect to periodisation. Tennis is markedly different to swimming or track and field for example, which allow for precise periodisation plans. In tennis, it is almost impossible to plan for peak performance. The difficulties pertaining to periodisation are magnified in the professional game as players commit to play a minimum number of tournaments, across five continents.

In the female professional game, the current ranking system encourages players to play more tournaments. As a result, many players compromise their physical condition, recovery or overall preparation. In the past, rankings were determined across an average number of tournaments and players could prepare more comprehensively or rest after injury. Tournament directors however, were dissatisfied because top players did not play enough. The ranking system changed and players now appear to play too much and practice too little. In an effort to better prepare and practice, players could choose to play less, but most do not. This gives rise to the following question: "Are the growing number of injuries in modern-day professional tennis due to overplay or undertraining?"

Other factors also complicate the periodisation process. Thirty weeks on the road means 30 different venues, continuous travel, changing time zones, hotels, different food, court surfaces, and weather conditions. Closer inspection of the ranking system, the rules and gender differences is needed to make sure that we do not superimpose male schedules on female players and that we do not enforce adult schedules on young players.

## SPECIFIC DEMANDS OF WOMEN'S TENNIS

As the female game continues to evolve, the differences between it and the male game appear more marked. In turn, these differences have an effect on match tactics and strategy as well as periodisation for female players.

Largely as a result of their early physical maturation, young girls are beginning to play the same game as their more senior counterparts. On the boys side however, there remains a clear difference between juniors and seniors, and even between the different junior age groups. Consequently, the number of youngsters on the female professional tour appears to be increasing.

Socially and psychologically, studies conclude that women are more mature than men at younger ages. They've also been shown to be more individualistic yet more dependant, but also better organised. Duda (1992) found that males prefer competitive situations, due to their stronger ego-oriented goals, whereas females prefer performance

situations, due to their preference for task-oriented goals. Empirically, it's also been noted that female players enjoy more attention and care on a personal-social level so the presence of significant others can become very important. More often than not, females view their peers or competitors on the tour as rivals as opposed to colleagues.

Collectively, these factors can have a significant impact upon a player's periodisation and the coach-player dynamic.

## PERIODISATION FOR FEMALE PROFESSIONAL PLAYERS: RECOMMENDATIONS

### Number of tournaments in a row vs. Time off (training period and/or recovery period)

Several experts (ECS, 2004) have suggested the planning of a minimum number of **training blocks** (see table 1) depending on the age of the player.

Age	First (important)	Second block	Third block
14	8 weeks	6 weeks	4 weeks
16	8 weeks	4 weeks	4 weeks
18	8 weeks	4 weeks	

Table 1. Recommended training blocks per age group.

Research has shown that almost 50% of top 100 ITF ranked junior girls fail to plan the 1 block of 8 weeks and 1 block of 4 weeks (Raabe & Verbeek, 2004) (see table 2).

	ATP 2004		WTA 2004		ITF 2004				
	Avg tourn	Avg match	Avg tourn	Avg match	Avg age	Avg WTA/ITF	Avg ITF jnrs	Avg total	Avg match
1>10	20.7	67.7	16.6	60.7	16.0	8.6	11.1	19.7	73.9
11>20	27.0	64.3	22.9	63.7	15.8	5.8	13.6	19.4	66.1
21>30	27.3	62.9	19.9	49.3	16.5	7.4	13.2	20.6	60.6
31>40	24.1	54.1	24.9	56.6	16.6	7.0	11.2	18.2	53.7
41>50	27.1	56.7	23.9	53.9	16.0	8.9	12.1	21.0	64.6
51>60	22.2	45.3	23.4	55.1	16.4	5.8	13.1	18.9	52.3
61>70	23.5	48.7	25.2	54.0	16.2	5.7	13.2	18.9	45.9
71>80	25.1	47.6	20.8	53.8	16.0	5.2	11.2	16.4	43.6
81>90	27.1	54.3	22.8	50.8	16.4	5.9	12.1	18.0	52.5
91>100	24.0	49.0	23.2	54.4	16.3	4.0	16.8	20.8	42.7
1>100	24.9	55.0	22.4	55.3	16.2	6.4	12.8	19.2	55.5

Table 2. Average number of tournaments/ matches in 2004 for top 100 ATP, WTA, ITF girls.

Table 2 illustrates that the top 30 ranked ITF girls play a similar number of tournaments as the top 30 ranked WTA players, yet quite a few more matches!! Compared to the professional men, these girls play a fewer number of tournaments but, again, more

matches... The vagaries (i.e. draw sizes and playing depth) of the junior vs. professional, and male vs. female tours may account for some of these differences.

These experts also recommend a specific **number of consecutive tournament weeks**. A maximum of 3 tournaments in a row is recommended, with 4 (once) being exceptional, and 5 being unacceptable. The calendar shows that in 2004 there are 38 series of 5 (or 6) consecutive tournament weeks.

### Age Eligibility Rule. Combined senior and junior programmes

In the authors' opinion there is a clear need for the WTA Age Eligibility Rule (WTA, 2005) to be linked to the number of junior tournaments. Ten years after its introduction, the AER has produced a significant decrease in burn-out and helped to lengthen the average player's career. The player's stressors have shifted from being external factors beyond their control (media, parents...) to more performance based variables (injuries, travelling, etc...).

The change in the ranking system, where players are now encouraged to accumulate points has negatively affected the AER (Table 3). From 1997 onwards, the average number of tournaments players have participated in has increased and as a result the AER has been modified on several occasions. With the girls competing simultaneously at senior and junior level, the need for a combined rule seems obvious.

	WTA 94 avg	WTA 97 all	WTA 2001 best 18	WTA 2004 best 17
	Tourn	Tourn	Tourn	Tourn
1>10	15.8	21.0	17.4	16.6
11>20	16.5	23.3	24.3	22.9
21>30	15.9	20.3	23.6	19.9
31>40	17.1	21.6	23.1	24.9
41>50	17.0	23.9	24.0	23.9
51>60	17.6	21.8	24.7	23.4
61>70	15.4	19.7	25.0	25.2
71>80	15.1	24.1	21.3	20.8
81>90	13.5	20.9	22.2	22.8
91>100	15.3	20.7	23.9	23.2
1>100	15.9	21.8	23.0	22.4

Table 3. The affect of changing ranking system on number of tournaments played.

The numbers in Table 3 only relate to singles matches. If you bear in mind that the junior game promotes doubles play as it calculates a combined singles and doubles ranking, these results become even more significant. With failure to qualify for a US \$10,000 tournament not considered one of a player's total number of allowed tournaments, these results can become further clouded.

## Limiting tournaments or mandate rest blocks

Even at the senior level, the number of tournaments in which players compete is too high for them to enjoy a well-balanced sporting life and lengthy career. Limiting the number of tournaments which young players and WTA competitors can play would have multiple benefits. The ranking would become increasingly based on quality of performance, deterring players from making countless tournament entries, and assisting in establishing a more even playing field characterised by more open draws. Unfortunately this is a hard sell as limiting the number of tournaments would basically mean a loss of potential income for the self-employed players.

Another option could be making it compulsory for the players to stay off the tour for a minimum number of weeks or for at least two blocks (of 'x' weeks) per year. The economic reality of this option however, is that both agents and players would likely organise some lucrative exhibitions instead.

## Periodisation models

Balyi (2003) stresses the importance of periodisation to avoid situations in which players feel the need to compete a lot to improve their rankings but are unable to compete enough because they do not take the necessary time to train properly. In imploring coaches to be concerned with the well being of the athlete, Balyi considers tennis a late specialisation sport (which could be debated) consisting of 4 stages.

Maes (2003) suggests working in cycles of 3 weeks on the road vs. 3 weeks off the road and a minimum of 1 larger 6-8 week training block. Week 1 of the off the road cycle would be of low volume and focus on the less used and more technical strokes/factors. Week 2 would see the training volume and intensity increase, while week 3 would be characterised by less voluminous, very specific explosive workouts with a tactical emphasis on strengths rather than weaknesses. The most underrated phase from a physical and mental perspective is the transition/recovery phase.

The WTA (2001) recommends the scheduling of preparation (minimum: 4 weeks), pre-competition (minimum: 4 weeks), peaking (maximum: 3 weeks), and active rest phases (1-4 weeks) several times throughout the calendar year. However, against the backdrop of the current ranking system, these blocks appear too long, and we recommend keeping the order but varying the length (shorter during the in-season and 1 (or 2) bigger preparation and pre-competitive phases per year).

From a technological perspective, computer programmes such as "Digitaltenniscoach" and "[Dsagenda](#)" provide some planning and periodisation guidance and can serve as an effective means of streamlining coach-athlete communication.



## CONCLUSION

The performance of tennis players is difficult to periodise and it becomes increasingly so, with women (or girls) that compete at the senior level at very young ages. If coaches, trainers, parents and agents cannot protect the young women from overplaying and overtraining then both the tournament regulations and the training systems need to be reviewed.

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