

ITF Coaches Education Programme Level 2 Coaching Course



Planning the tennis training

By the end of this session you should be able to:

- Explain the definition and benefits of periodisation for tennis
- Understand the general characteristics and phases of tennis planning
- Devise effective and appropriate training and tournament planning for tournament tennis players

Definition of periodisation

- Periodisation is the division of an annual plan into phases of training
- It is the splitting up of the year into smaller units each one with its own objectives to ensure the best possible chance of performing well at pre-determined times of the year

Tennis characteristics related to periodisation



- Tennis is one of the few sports without an off season
- This increases the risk of injury, getting stale or even burn out
- When performing at the highest levels of tennis, the focus of the training process should be on training in an efficient way

Training in an efficient way



- Use the latest sport science information applied to tennis available.
- Design and implement an adequate training program
- Integration of coaching knowledge and the scientific basis of sport

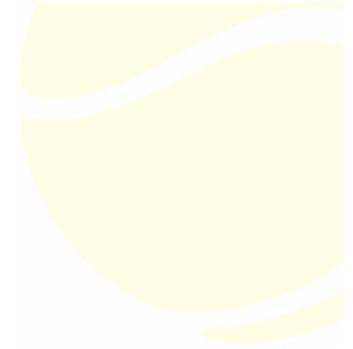
Evolution of the training concept

- Years ago: work stimulus (stress)
 - Improvement resulted from body adaptation to the gradually increased stress (overload)
 - When this work is too excessive, the overload becomes overtraining (burnout)
 - When the work is insufficient, there is little or no performance improvement
- Nowadays: Periodisation

Purpose of periodisation

- To balance the intensity and volume of stress with sufficient recovery
- To allow the player to train at the highest possible volume and intensity, yet remain below the level of overtraining

Aspects controlled by periodisation



- Volume: Amount of work performed
- Intensity: How hard the player works
- Frequency: How often the player trains
- Type: What area the player trains

Periodisation and planning

- Periodisation:

Refers strictly to the time aspects (periods of the year: seasons, months, weeks, days) in which different aspects should be trained

Planning:

It is a more global concept that refers to the player, the training, the available resources, the player's overall career, etc.

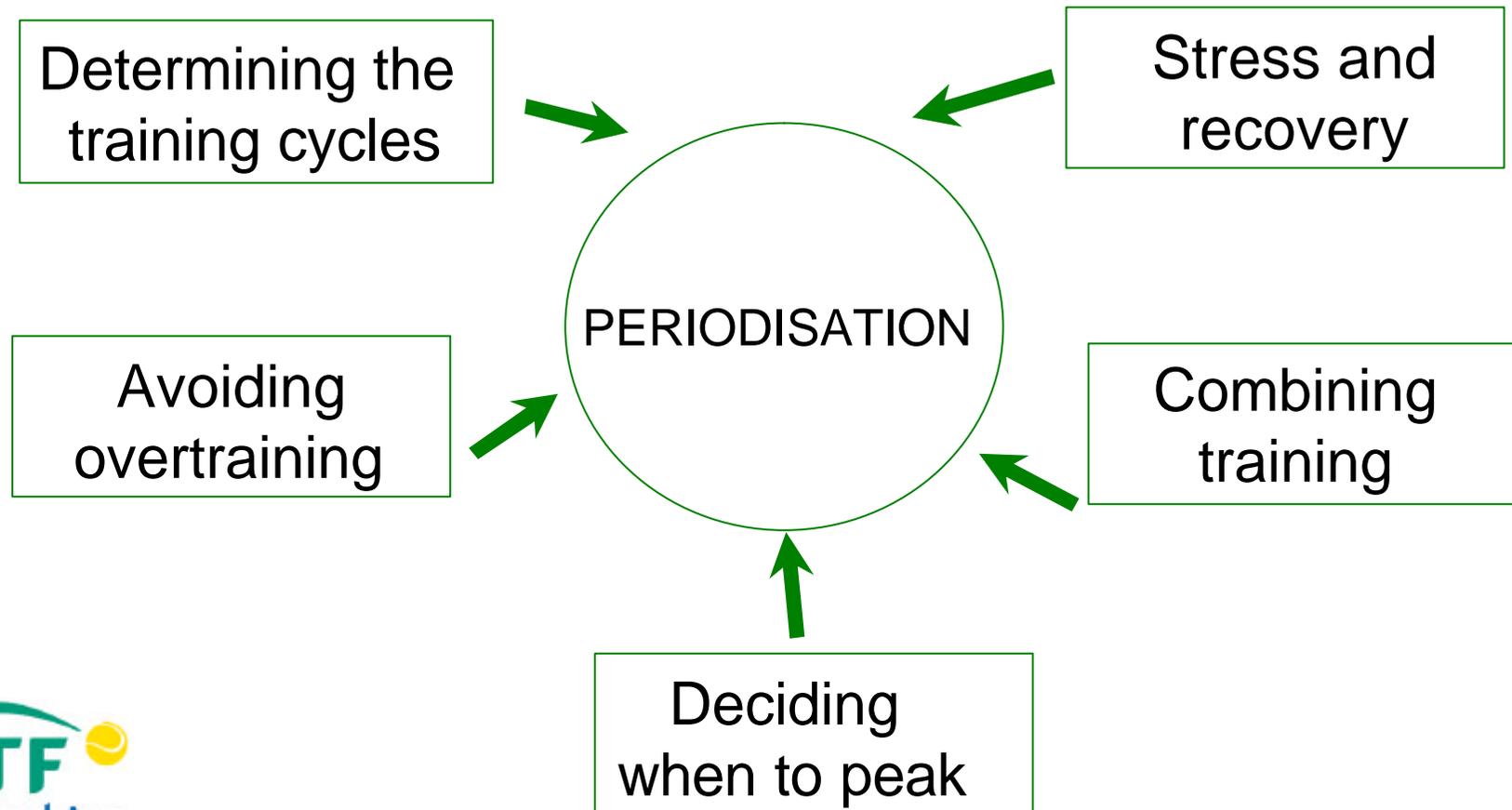
Elements that define tennis planning

- Players' characteristics (school programme, fitness, psychological and technical levels)
- Player tournament schedule and experience (career plan)
- Facilities and means available for training
- Coaches knowledge about periodisation
- Physiological demands of tennis
- The physiological parameters and energy systems which require development through training
- The methods of training available
- The specific nature of adaptations which result from different training methods

Benefits of periodisation

- Helps to avoid staleness
- Reduces boredom
- Reduces the risk of burnout and overtraining
- Ensures an individualised training programme for each player
- Encourages optimum physical development
- Increases player's understanding of the training programme
- Increases motivation
- Reduces the risk of injury
- Ensures proper physical conditioning
- Helps player to peak at the right time and maintenance of the peak performance
- Encourages planning based on scientific principles of exercise
- Makes the coach learn more about sport science

General characteristics of periodisation



Determining the training cycles

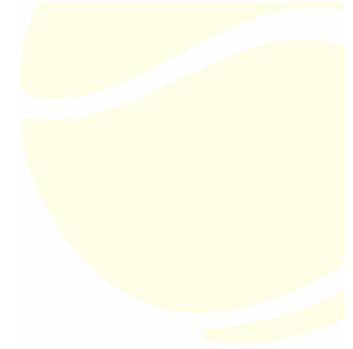
- Coach and player decide which tournaments are most important
- Test the players' physical fitness (specific tennis protocol) to determine fitness level
- Train using cycles with particular emphasis placed on balancing stress and recovery
- Training schedules should define work cycles well in advance

Stress and recovery



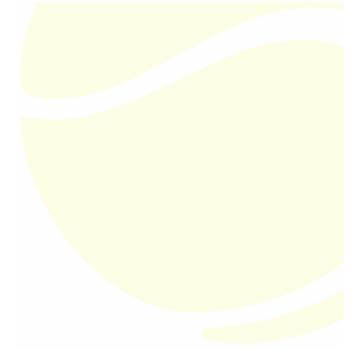
- Ratios carefully monitored
- Stress properly periodised
- Long periods of sustained stress will lead to:
 - poor performance,
 - concentration problems
 - staleness
- Cycles of recovery are just as important to peak performance as cycles of work
- The more fun, the less stress
- Stress is both physical and psychological
- When the work stimulus exceeds the body's capacity to cope, relaxation and recovery mechanisms fall
- Total work load should be as high as possible without overtraining

Combining training



- High level tennis players require even heavier work loads to stimulate improvement
- The player has to accept a decrease or temporary regression in performance during these months to improve the rest of the cycle
- Every match should be played to win, but there is a physiological reason for bad match performance during training periods
- Competition should not interrupt the preparation training

Avoid overtraining



- Overtraining occurs when the player receives no further benefit from continuous training
- Overtrained players complain of being tired and irritable, they dread the workouts, eat poorly, decrease in performance, have irregular sleeping habits, and suffer from mental burn out, drug or alcohol abuse, etc.

Monitoring work load



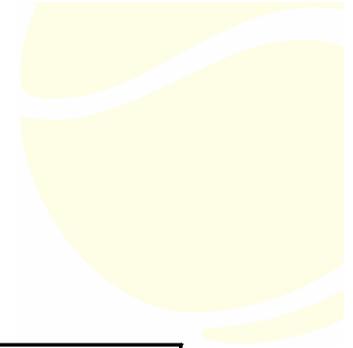
- **Frequency:** Number of days per week of performing a specific drill. E.g. conditioning and weight training 3 alternate days per week (off season) and 1 day per week (on season)
- **Intensity:** How hard a player works on a given task, e.g. going from slow to quick in weight and conditioning drills as the season approaches.
- **Duration:** How long a player spends on a given task, e.g. more time spent on weight and conditioning drills during off season
- **Type:** Type of training the player performs, e.g. more time spent on technical corrections during pre-competition

Deciding when to peak



- The whole year's training and tournament schedule of a player should be geared to peak during the most important competitions of his/her programme
- Both coach and player have to decide when to peak
- One cannot perform at peak levels all the time
- A tennis player can normally peak five or six times a year

The career plan



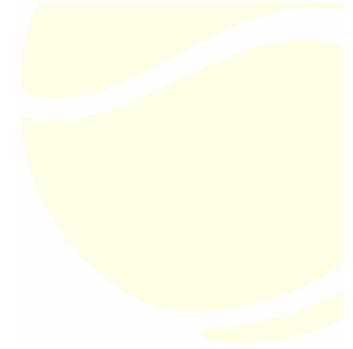
Name of period	Name of sub-period	App. years	Goal
Preparatory phase (foundation training)	General all round basic motor skill development	5-7	To create an optimal all round base
	Versatile all round basic training	7-12	To create an optimal all round base for future training and mastery
Versatile sport specific training phase	Building up training	11-14	To transform fluently the all round base into specific character of tennis
	Performance training	13-16	To shape specific abilities affecting performance in tennis to build up the highest competitive level
	High performance training	15 >	To master all factors affecting performance in tennis to build up to the highest competitive level

Annual phases



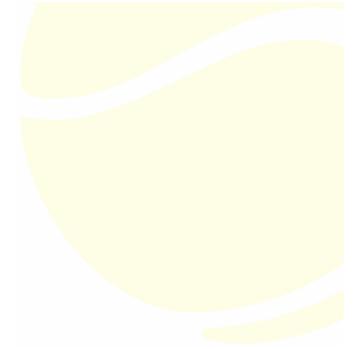
Main phase of the plan	is divided in	Partial phases of the plan
Pluriannual cycle	----->	Annual cycle (2-8 years)
Annual cycle	----->	Periods or macrocycles (preparation, competition, transition)
Periods or macrocycles	----->	Mesocycles (3-5 weeks to 1 month)
Mesocycles	----->	Microcycles (1 week)
Microcycles	----->	Daily cycle (7 cycles per week)
Daily cycle	----->	Training sessions (1 to 5 per day)
Training session	----->	Part of the session (warm up, main part, cool down)
Part of the session	----->	Minutes (drills, sets, etc.)

Annual periods



- Preparation:
 - General
 - Specific
- Pre-competition
- Competition
- Transition:
 - Active
 - Rest

General preparatory



- Increased amount of training
- High volume, low intensity
- Physical condition very important (endurance and strength)
- Technique (new skills and corrections)
- Competition: less tournaments
- 4 to 6 weeks

Specific preparatory period

- Low volume, high intensity
- Physical condition specific to tennis (anaerobic endurance, speed, power)
- Technique (strengths) and Tactics (patterns)
- Mental skills adapted to competition
- Competition: secondary tournaments
- 4 to 6 weeks

Pre-competition period



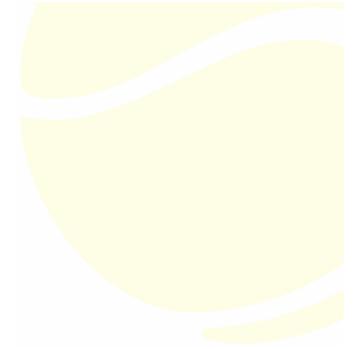
- Low volume, high intensity
- Physical condition (agility, speed, power)
- Tactics (practice matches) most important
- Mental routines & positive environment
- Competition: preparatory tournaments
- Length depending on player's level

Competition period



- Peaking at the right time
- Maintain fitness level (circuit training)
- Tactics (adapt to opponents and surfaces)
- Mental routines & concentration
- Competition: most important tournaments
- Length depending on player's level

Transition period



- Recovering from the stress
- Assess past performance
- Participation in other sports
- Holidays, free time
- From 1 to 4 weeks

Mesocycles

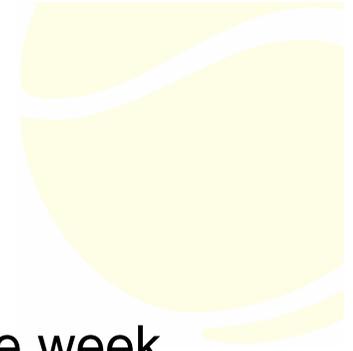
They last between 2 and 6 weeks. There are different types of mesocycles depending on the periodisation phases:

TYPE	CHARACTERISTICS
Initial	At the beginning of the preparatory phase. 2 weeks. Low load (high volume and low intensity)
Preparatory	During the preparatory phase. More than 2 weeks. High volume and high intensity. Physical and technical training.
Control	Polishing during preparation and competition phases. More than 2 weeks. Low volume, high intensity. Tennis specific training and practice matches.
Competition	During competition phase. No more than 3 weeks in a row. Technical, tactical, physical and mental preparation for daily tournament matches.
Recovery	During specific preparation, competition and transition phases. From several days to several weeks. Low load. Practice of other sports.

Microcycles

TYPE	CHARACTERISTICS
Preparatory	During preparatory phase. General prep MC: 20% tennis, 80% physical tr. Specific prep. MC: 35% tennis, 50% physical tr., 15% combined tr.
Pre-competitive	During pre-competitive phase. 50% tennis, 30% physical training, 20% practice matches and tournament matches.
Tapering	Reduces amount of training in preparation for competition. Training drills similar to competition with a reduction of the length/ frequency of sessions. From 5 days to 1 month, (average 10-21 days)
Competitive	2 or 3 MC in a row as maximum. Competitive intensity tr. sessions with low effort recovery exercises. Approx. 70 % matches, 15 % tennis tr. and 15 % physical tr.
Active rest	When tournaments are less than two weeks apart take 3-4 days of active rest. Then, skip the preparation and go directly into the pre-competitive phase. Approx. 15 % practice matches, 40 % tennis and 45 % physical training and practising other sports

Day periods



- Sequence appropriately the sessions during each day of the week.
- Combine the load, rest, intensity and quantity of training performed in each day, each session and each drill.
- Each day's programme should have a logical consequence related to the previous one.

TYPE	CHARACTERISTICS
One session	Due to school schedule. Better in the morning because the players are less tired. In the session combine all contents: technique, tactics, physical training and mental training. It is better if the players can warm up both physically and technically before starting the actual training time.
Several sessions	With more advanced tournament players or during holidays. Schedule 2 or 3 short sessions of 1.30 min. to 2 hours rather than a non-stop 4 hour session. Combine physical, technical, tactical and mental training sessions during the day schedule.

Tips for efficient planning (I)

- Decide on the most important tournaments and try to peak for them (goal setting)
- Make sure that the players get adequate rest
- Quality not quantity in the training
- Each individual training session should have a link with the overall year plan
- Take time to build up and endurance base once per year (6 weeks)

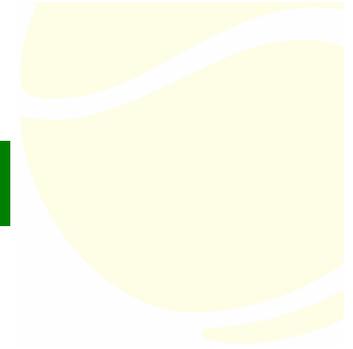
Tips for efficient planning (II)

- Major technical work should only be done during the preparatory periods
- Work/rest ratios similar to tennis specially leading up to competition
- Avoid major technical work in the lead up to competition

Tips for efficient planning (III)

- Emphasise the positive areas in the player's game leading to competition to build confidence
- Before competition make the practice simulate match-play situations
- The day before a competition reduce the volume of training
- During competition maintain physical fitness (i.e. one 40 minute run for endurance a week)

Completing the annual planner (I)



- Identify important dates (school exams, family holidays, coach holidays, etc.)
- List the available tournaments from the different schedules (ITF, ATP, WTA, etc.)
- Put in tactical, technical, goals etc.

Completing the annual planner (II)



- Put training phases in the following order:
 - Dates of main competitions
 - Dates of secondary competitions
 - Rest
 - Preparation
- Put in testing and goal evaluation dates
- Put in the intensity and volume scale

Main training objectives of each phase

- Preparation
 - Physical: endurance/aerobic base, some speed work, increasing through phase
 - Technical: major work, decreasing towards competitive phase
 - Tactical: increasing towards competitive phase
 - Mental: throughout, increasing towards competitive phase

Main training objectives of each phase

- Competitive phase:
 - Physical: reduced loading
 - Technical: maintenance
 - Tactical: major
 - Mental: major

Intensity and volume



PHASE	TECHNICAL VOLUME	WORK LOAD INTENSITY
Preparation	High	Medium to low
Competition	Low	High