

TPT Workbook & Study Guide: Learning Objectives For Each Chapter

Chapter 2: The Basics of Tennis

Learning Objectives:

- *Identify the major tennis playing styles and the differences between these styles when developing tennis-specific training programs.*
- *What are the major muscles and movements involved in all the tennis strokes (forehand, backhand, serve, volley and overheads)?*
- *Describe the differences between the body positions for the open, semi-open, square and closed stance forehands and backhands with specific understanding of how training should be incorporated to improve all these strokes.*
- *Understand the muscles and movements involved in the serve. What are the eight stages of the tennis serve?*
- *Understanding the kinetic chain (kinetic link) when designing tennis specific programs.*

Chapter 3: Tennis-Specific Principles of Training

Learning Objectives:

- *Define the major factors important when designing tennis-specific training programs.*
- *Understand the basics of where energy comes from and how the three different energy systems work together to provide fuel and to aid recovery in the tennis player.*
- *Outline the major work-to-rest ratios for tennis based on the demands of the sport.*
- *Describe how periodized programs need to take into account individual differences between tennis players.*
- *Provide appropriate structure for an effective “needs analysis” for tennis players at the junior and adult recreational levels.*

Chapter 4: Resistance Training for Tennis

Learning Objectives:

- *Identify the major exercise movements and motions of the body (i.e. pressing, pushing, squatting, lunging, etc.) and which are most relevant to the tennis athlete.*
- *Provide appropriate justification for use of different training variations. When to use machines, free-weights, tubing, bodyweight, suspension training devices.*
- *Clearly define training protocols to effectively develop strength, power, hypertrophy and muscular endurance for the tennis athlete.*
- *Understand when and how to utilize basic plyometric movements for the tennis player at the junior and adult level.*
- *Create basic tennis-specific resistance training workouts for the junior and adult tennis player.*

Chapter 5: Movement for Tennis: Speed, Agility & Quickness

Learning Objectives:

- *Describe the differences between acceleration and maximum velocity movement mechanics. Which is more relevant to tennis-specific movement?*
- *Understand the different movement patterns specifically for tennis.*
- *Define the major first step movements required for the tennis player.*
- *The runaround forehand movement is a major footwork pattern needed in competitive tennis. Understand the major muscles and movement mechanics needed to perform this pattern effectively.*
- *Define the muscles and patterns of movement used during the different recovery movements used during tennis.*
- *The split step (sometimes defined as a decision step) is a very important aspect of tennis. Can you effectively demonstrate and explain the best method to train the split step?*

Chapter 6: Flexibility for Tennis

Learning Objectives:

- *Define the major differences in stretching terminology (static, dynamic, active, passive, PNF, AIS, etc.)*
- *Understand the suggested best practices for tennis-specific flexibility guidelines.*
- *Define GIRD and how this concept is important in the tennis shoulder and the influence of tennis practice or competition on shoulder function and flexibility.*
- *What are 10 important static stretches for tennis?*
- *What are 10 important dynamic stretches for tennis?*

Chapter 7: Tennis-Specific Endurance

Learning Objectives:

- *Identify the major adaptations that occur with traditional cardiovascular (aerobic) training.*
- *Understand the work-to-rest ratios that are common in tennis and the most efficient ways to develop tennis-specific endurance programs.*
- *Identify the typical physiological responses (VO_2 , heart rate, lactate, etc.) to competitive tennis.*
- *Develop appropriate tennis-specific endurance training programs for junior, collegiate, professional, adult and senior tennis players.*

Chapter 8: Nutrition for Tennis

Learning Objectives:

- *Describe the four major dietary goals for a tennis athlete.*
- *Understand the differences between the three major nutritional sources (carbs, protein and fat) for the tennis player.*
- *Provide appropriate pre-match nutritional meal guidelines for competitive adult tennis players.*
- *Provide appropriate during match nutritional guidelines for competitive junior tennis players.*
- *Provide appropriate post-match nutritional guidelines for competitive junior tennis players.*
- *Identify the major hydration concerns during tennis practice and competition in warm or hot weather.*
- *How does sodium influence hydration and muscle cramping?*
- *Identify the major substances that are listed in the Tennis Anti-Doping Program and also understand the effects of each of the drugs.*

Chapter 9: Testing, Screening and Assessments for Tennis

Learning Objectives:

- *Define the major reasons for testing tennis athletes.*
- *Outline basic normative data for the major tennis performance tests based on age and level of competition.*
- *Define the different tennis-relevant tests to measure strength, power, speed, endurance and body composition.*
- *Be able to successfully perform valid and reliable tests for tennis players.*

Chapter 10: Injury Prevention and Tennis Medicine

Learning Objectives:

- *Define common tennis-related injuries including understanding the signs and symptoms.*
- *Understand possible causes for the most common tennis-specific injuries.*
- *Describe the most common muscle imbalances that can occur with long-term tennis play.*
- *Heat illness is a potential concern when playing tennis in hot and humid conditions. Understand the basic causes as well as some simple methods to prevent most forms of heat-related problems.*

Chapter 11: Fatigue & Recovery in Tennis

Learning Objectives:

- *Define fatigue, overtraining, under-recovery and be able to clearly differentiate between the different types of fatigue (metabolic, neural and environmental).*
- *Describe practical heat acclimatization guidelines for the tennis athlete when preparing for travel to hot and humid environments.*
- *Why is nutrition such a big component of recovery? Understand the best nutritional recovery techniques to help speed the recovery process in the tennis athlete.*
- *Describe recovery strategies for different types of fatigue experienced by tennis athletes.*

Chapter 12: Environmental Factors for Tennis Players

Learning Objectives:

- *Identify the general areas of concern when tennis athletes compete in the heat.*
- *Understand the signs and symptoms of different heat related illnesses. Specifically know the difference between heat related muscle cramps, heat exhaustion and heat stroke.*
- *Understand the hydration concerns for tennis players and methods and techniques to prevent hydration related problems during tennis training and competition.*
- *What is Jet Lag and what are some practical guidelines to help alleviate the negative consequences for traveling tennis players?*

Chapter 13: Athlete Wellness, Ethics & Character for Tennis

Learning Objectives:

- *Identify the major areas of ethical behavior that should be followed by all ITPA members and certified individuals.*
- *Have an understanding of the International Tennis Federation ethical guidelines for coaches.*
- *Clearly define the differences between a coaching philosophy focused on self-interest versus a philosophy focused on the interest of others.*

Chapter 15: Teaching, Coaching, Learning & Communication Considerations

Learning Objectives:

- *Describe the four major learning styles.*
- *Identify the major teaching styles and how the command teaching styles differ from the discovery teaching styles.*
- *Be comfortable working with small groups of athletes and using the group dynamic as a benefit to improve learning and skill acquisition.*
- *As a teacher, be able to understand how the four components of social learning theory can be applied to help each athlete learn faster and retain the information better.*
- *Define the five areas that need to exist for a training session to be considered a “deliberate practice.”*
- *Describe how to utilize language, voice and body language to improve communication with athletes.*

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