

CTPS 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.*
- *Contrast and compare the major recovery modalities available to aid the tennis athlete.*
- *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.*

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 Olympic lifting and plyometric movements for the tennis player at the junior, collegiate, professional, adult and senior levels.*
- *Create tennis-specific resistance training workouts for the junior, collegiate, professional, adult and senior 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 differences between movement mechanics on the three major different tennis surfaces (clay, hard court and grass).*
- *Define the major first step movements required for the tennis player.*
- *The run-around 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.*
- *Understand the different major joints in the body and how competitive or recreational tennis training and competition influences the structure and function of these joints from a flexibility perspective.*
- *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?*
- *Which supplements provide benefits to the competitive adult tennis player?*

Chapter 9: Testing, Screening and Assessments for Tennis

Learning Objectives:

- *Define the major reasons for testing tennis athletes.*
- *Understand the basic medications that may influence clients' responses to physical training or tennis play.*
- *Define the major injuries that may occur at the shoulder, elbow, wrist, hip, knee and ankle.*
- *Outline the benefits and negatives of the different methods to measure body composition.*
- *Outline 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.*

Chapter 10: Periodization and Planning for the Tennis Player

Learning Objectives:

- *Describe how individual characteristics of each tennis player need to be understood when designing periodized training programs.*
- *Provide appropriate structure for an effective “needs analysis” for tennis players at the junior, collegiate, professional, adult recreational and older adult levels.*
- *Develop structured periodized plans utilizing appropriate cycles and phases to create a macrocycle, mesocycle and microcycle for the junior, collegiate, professional, adult and senior tennis players.*
- *Compare and contrast linear (block or traditional) periodized models and nonlinear (undulating) periodized models. Which are more appropriate for the majority of tennis players?*
- *Identify appropriate volumes and intensities to improve all the major components of tennis fitness.*

Chapter 11: Injury Prevention & Tennis Medicine

Learning Objectives:

- *Define the most common tennis-related injuries including understanding the signs and symptoms.*
- *Understand possible causes and basic treatment techniques 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 causes as well as the methods to prevent most forms of heat-related problems.*
- *Understand the basic principles of sports medicine and also when it is appropriate to refer the tennis athlete to the sports medicine professional (MD, PT, ATC, DC, etc).*
- *Identify appropriate volumes and intensities to improve all the major components of tennis fitness.*

Chapter 12: Communicating with Athletes' Parents

Learning Objectives:

- *Identify the general types of parents.*
- *Understand the different dynamics between the coach and tennis parent.*
- *Describe the best methods to implement communication with the tennis parent with specific emphasis on how to utilize the parent meetings effectively.*
- *Understand the basic tasks that young tennis players should be able to perform at the different major age groups in junior tennis (12 and under, 14 and under, 16 and under, 18 and under).*
- *Clearly define the attributes and benefits of successful coaches who deal with young tennis athletes.*

Chapter 13: Fatigue and 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.*
- *Understand the differences between staleness and burnout.*
- *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.*
- *Identify the positives and negatives to some of the most commonly utilized recovery modalities (i.e. sauna, cold water immersion, massage, acupuncture, compressive clothing, etc).*
- *Describe recovery strategies for different types of fatigue experienced by tennis athletes.*

Chapter 14: 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: The Young Tennis Athlete

Learning Objectives:

- *Describe the roadblocks to skill acquisition.*
- *Understand the critical periods of training and how to use different stimulators for optimum adaptation.*
- *Understand and learn how to implement the ITPA 5 Set Model to Lifetime Tennis Performance Development.*
- *Understand the pitfalls and areas of improvement needed when training young athletes.*

Chapter 16: The Female Tennis Player

Learning Objectives:

- *Define the “female athlete triad” and how to monitor the three areas.*
- *Be highly familiar with the major eating disorders and the most common signs and symptoms.*
- *Understand and be able to explain why strength training is important for the female athlete.*
- *Know when certain female related concerns should be referred to more specialized individuals in nutrition, psychology or medicine.*

Chapter 17: Adult and Senior Tennis

Learning Objectives:

- *Identify major physical and psychological differences working with adult players compared to junior players.*
- *Describe the influence of aging on the important characteristics in tennis performance and injury prevention.*
- *Highlight the major health benefits of tennis to the adult or senior tennis player.*
- *Evaluate how the screening and/or assessment process differs when working with an adult or senior tennis player.*
- *Be familiar with the American College of Sports Medicine Guidelines for general physical guidelines for older adults.*
- *Be able to define the most beneficial methods of communication with the older tennis player.*

Chapter 18: Environmental Factors for Tennis Players

Learning Objectives:

- *Identify the general areas of concern when tennis athletes compete in the heat.*
- *Describe practical heat acclimatization guidelines for the tennis athlete when preparing for travel to hot and humid environments.*
- *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.*
- *Clearly define the influence of altitude on tennis related training and competition.*
- *What is Jet Lag and what are some practical guidelines to help alleviate the negative consequences for traveling tennis players?*

Chapter 19: Teaching, Coaching, Learning & Other Pedagogical 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.*
- *Define which teaching and coaching style may be most appropriate for different real-world scenarios when working with athletes.*
- *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.”*
- *Have a clear understanding of the important role of communication between the tennis performance specialist and the tennis skills coach.*
- *Describe how to utilize language, voice and body language to improve communication with athletes.*

Chapter 20: Business and Marketing for the CTPS

Learning Objectives:

- *Describe the opportunities available for the Certified Tennis Performance Specialist.*
- *List the top methods to promote yourself and/or your business.*
- *Understand the best strategies to utilize Facebook, LinkedIn, Twitter and other social media sites.*
- *Explain the methods behind effective affiliate programs for the CTPS.*

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