

**Gregory N. Lervick, MD**

## **INTERVAL PROGRAM FOR TENNIS PLAYERS**

This tennis protocol is designed to be performed every other day. Each session should begin with the warm-up exercises as outline below. Continue with your strengthening, flexibility, and conditioning exercises on the days you are not following the tennis protocol.

### **WARM-UP**

- Lower extremity
  - Jog 4 laps around the tennis court
  - Stretches
    - Gastrocnemius
    - Achilles tendon
    - Hamstring
    - Quadriceps
- Upper extremity
  - Shoulder
    - Posterior rotator cuff
    - Inferior capsule
    - Rhomboids
    - Forearm/wrist stretches
    - Wrist flexors
    - Wrist extensors
- Trunk
  - Side bends
  - Extension
  - Rotation
- Forehand ground strokes
  - Hit toward the fence on the opposite side of the court. Do not worry about getting the ball in the court. During all of the strokes, remember these key steps:
    - Bend your knees
    - Turn your body
    - Step toward the ball
    - Hit the ball when it is out in front of you
  - Avoid hitting with an open stance, as this places undue stress on your shoulder. This is especially more stressful during the forehand stroke if you have had anterior instability or impingement problems. This is also true during the backhand if you have had problems of posterior instability.

- On the first day of these sport-specific drills, start with bouncing the ball and hitting it. Try to bounce the ball yourself and hit it at waist level. This will allow for consistency in the following:
  - How the ball comes to you
  - Approximating your timing between hits
  - Hitting toward a target to ensure follow-through and full extension
  - Employing the proper mechanics, thereby placing less stress on the anterior shoulder

## **WEEK 1**

### **Day 1**

- 25 forehand strokes
- 25 backhand strokes

### **Day 2**

If there are no problems after the first-day workout, increase the number of forehand and backhand strokes

- 50 forehand strokes
- 50 backhand strokes

### **Day 3**

- 50 forehand strokes (waist level)
- 50 backhand strokes (waist level)
- 25 high forehand strokes
- 25 high backhand strokes

## **WEEK 2**

Progress to having the ball tossed to you in a timely manner, giving you enough time to recover from your deliberate follow-through (i.e., wait until the ball bounces on the other side of the court before tossing another ball). Always aim the ball at a target or at a spot on the court.

If you are working on basic ground strokes, have someone bounce the ball to you consistently at waist height.

If you are working on high forehands, have the ball bounced to you at shoulder height or higher.

### **Day 1**

- 25 high forehand strokes
- 50 waist-high forehand strokes
- 50 waist-high backhand strokes
- 25 high backhand strokes

## **Day 2**

- 25 high forehand strokes
- 50 waist-high forehand strokes
- 50 waist-high backhand strokes
- 25 high backhand strokes

## **Day 3**

Alternate hitting the ball cross-court and down-the-line, using the waist-high and high forehand and backhand strokes

- 25 high forehand strokes
- 50 waist-high forehand strokes
- 50 waist-high backhand strokes
- 25 high backhand strokes

## **WEEK 3**

Continue the three times per week schedule. Add regular and high forehand and backhand volleys. At this point, you may begin having someone hit tennis balls to you from a basket of balls. This will allow you to get the feel of the ball as it comes off another tennis racket. Your partner should wait until the ball that you hit has bounced on the other side of the court before hitting another ball to you. This will give you time to emphasize your follow-through and not hurry to return for the next shot. As always, emphasis is placed on proper body mechanics.

## **Day 1**

- 25 high forehand strokes
- 50 waist-high forehand strokes
- 50 waist-high backhand strokes
- 25 high backhand strokes
- 25 low backhand and forehand volleys
- 25 high backhand and forehand volleys

## **Day 2**

Same as day 1, week 3.

## **Day 3**

Same as day 2, week 3 with emphasis on direction (i.e., down-the-line and cross-court). Remember, good body mechanics is still a must:

- Keep the knees bent
- Hit the ball on the rise
- Hit the ball in front of you
- Turn your body
- Do not hit the ball with an open stance
- Stay on the balls of your feet

## **WEEK 4**

### **Day 1**

Continue having your partner hit tennis balls to you from out of a basket. Alternate hitting forehand and backhand strokes with lateral movement along the baseline. Again, emphasis is on good mechanics as described previously.

Alternate hitting the ball down-the-line and cross-court. This drill should be done with a full basket of tennis balls (100-150 tennis balls).

Follow this drill with high and low volleys using half a basket of tennis balls (50-75 balls). This drill is also performed with lateral movement and returning to the middle of the court after the ball is hit.

Your partner should continue allowing enough time for you to return to the middle of the court before hitting the next ball. This is to avoid your rushing the stroke and using faulty mechanics.

### **Day 2**

Same drills as day 1, week 4.

### **Day 3**

Same drills as day 2, week 4.

## **WEEK 5**

### **Day 1**

Find a partner able to hit consistent ground strokes (able to hit the ball to the same area consistently, i.e. to your forehand with the ball bouncing about waist high).

Begin hitting ground strokes with this partner alternating hitting the ball to your backhand and to your forehand. Rally for about 15 minutes, then add volleys with your partner hitting to you from the baseline. Alternate between backhand and forehand volleys and high and low volleys. Continue volleying another 15 minutes. You will have rallied for a total of 30 to 40 minutes.

At the end of the session, practice a few serves while standing along the baseline. First, warm up by shadowing for 1 to 3 minutes. Hold the tennis racquet loosely and swing across your body in a figure 8. Do not swing the racquet hard. When you are ready to practice your serves using a ball, be sure to keep your toss out in front of you, get your racquet up and behind you, bend your knees, and hit up on the ball. Forget about how much power you are generating, and forget about hitting the ball between the service lines. Try hitting the ball as if you are hitting it toward the back fence.

Hit approximately 10 serves from each side of the court. Remember, this is the first time you are serving, so do not try to hit at 100% of your effort.

## **Day 2**

Same as day 1, week 5, but now increase the number of times you practice your serve. After working on your ground strokes and volleys, return to the baseline and work on your second serve. Hit up on the ball, bend your knees, follow through, and keep the toss in front of you. This time hit 20 balls from each side of the court (i.e., 20 into the deuce court and 20 into the ad court).

## **Day 3**

Same as day 2, week 5, with ground strokes, volleys, and serves. Do not add to the serves. Concentrate on the following:

- Bending your knees
- Preparing the racquet
- Using footwork
- Hitting the ball out in front of you
- Keeping your eyes on the ball
- Following through
- Getting in position for the next shot
- Keeping the toss in front of you during the serve

The workout should be the same as day 2, but if you emphasize the proper mechanics listed previously, you should feel as though you had a harder workout than in day 2.

## **WEEK 6**

### **Day 1**

After the usual warm-up program, start with specific ground-stroke drills, with you hitting the ball down-the-line and your partner on the other side hitting the ball cross-court. This will force you to move quickly on the court. Emphasize good mechanics as mentioned previously.

Perform this drill for 10 to 15 minutes before reversing the directions of your strokes. Now have your partner hit down-the-line while you hit cross-court.

Proceed to the next drill with your partner hitting the ball to you. Return balls using a forehand, then a backhand, then a put-away volley. Repeat this sequence for 10 to 15 minutes. End this session by serving 50 balls to the ad court and 50 balls to the deuce court.

### **Day 2**

Same as day 1, week 6, plus returning serves from each side of the court (deuce and ad court). End with practicing serves, 50 to each court.

### **Day 3**

Perform the following sequence: warm-up; cross-court and down-the-line drills; backhand, forehand, and volley drills; return of serves; and practice serves.

## **WEEK 7**

### **Day 1**

Perform the warm-up program. Perform drills as before and practice return of serves. Before practicing serving, work on hitting 10-15 overhead shots. Continue emphasizing good mechanics. Add the approach shot to your drills.

### **Day 2**

Same as day 1, week 7, except double the number of overhead shots (25-30 overheads).

### **Day 3**

Perform warm-up exercises and cross-court drills. Add the overhead shot to the backhand, forehand, and volley drill, making it the backhand, forehand, volley, and overhead drill.

If you are a serious tennis player, you will want to work on other strokes or other parts of your game. Feel free to gradually add them to your practice and workout sessions. Just as in other strokes, the proper mechanics should be applied to drop volley, slice, heavy topspin, drop shots, and lobs, offensive and defensive.

## **WEEK 8**

### **Day 1**

Warm-up and play a simulated one-set match. Be sure to take rest periods after every third game. Remember, you will have to concentrate harder on using good mechanics.

### **Day 2**

Perform another simulated game but with a two-set match.

### **Day 3**

Perform another simulated game, this time a best-of-three set match.

If all has progressed well, you may make plans to return to your regular workout and game schedule. You may also practice or play on consecutive days if your condition allows it.

This protocol provides you with general guidelines for the safe return to tennis following nonsurgical or surgical treatment of shoulder or elbow conditions. The potential for reinjury always exists. The progression should be slowed as necessary to allow for gradual conditioning and avoiding reinjury. If you develop persistent pain that does not alleviate with rest and appropriate activity modification, contact your physician.

## **REFERENCE / SOURCE:**

Clinical Orthopaedic Rehabilitation, 2<sup>nd</sup> edition. SB Brotzman, KE Wilk. Mosby 2003.