

Interval Racquet Sport Program

The Interval Tennis Program (ITP) is designed to gradually return motion, strength and confidence in the swing after injury or surgery by slowly progressing through graduated exercises. The ITP is initiated upon clearance by the athlete's physician to resume tennis specific activities, and performed under the supervision of the rehabilitation team (physician, physical therapist and athletic trainer).

The program is set up to minimize the chance of re-injury and emphasize pre-participation warm-up and stretching. In development of the interval tennis program, the following factors are considered most important. This program is divided into 4-6 weeks of progressive participation.

1. The act of hitting a tennis ball involves the transfer of energy from the feet through the legs, pelvis, trunk, and out the shoulder through the elbow, forearm, hand and ultimately to the racquet. Therefore, any return to tennis after injury must include attention to the entire body.
2. The chance for re-injury is lessened by a graduated progression of interval tennis program
3. Proper warm-up is essential.
4. Most injuries occur as the result of fatigue and too much too soon.
5. Proper mechanics lessen the incidence of re-injury.
6. Baseline requirements for tennis include:
 - Adequate time from injury or surgery to allow for healing
 - Pain-free range of motion
 - Adequate muscle power
 - Adequate muscle resistance to fatigue

Because there is individual variability among athletes, there is no set timetable for completion of the program. Most athletes, by nature, are highly competitive individuals and wish to return to competition at the earliest possible moment. While this is a necessary quality of all athletes, the proper channeling of the athlete's energies into a rigidly controlled tennis program is essential to lessen the chance of re-injury during the rehabilitation process. The athlete may have the tendency to want to increase the intensity of the tennis program. This will increase the incidence of re-injury and may greatly retard the rehabilitation process. It is recommended to follow the program rigidly as this will be the safest route to return to competition.

During the recovery process the athlete will probably experience soreness and a dull, diffuse aching sensation in the muscles and tendons. If the athlete experiences sharp pain, particularly in the joint, stop all tennis activity until this pain ceases. If continued pain, contact your physician.

Weight Training: The athlete should supplement the ITP with a high repetition, low weight exercise program. Strengthening should address a good balance between anterior and posterior musculature so that the shoulder will not be predisposed to injury. Special emphasis must be given to posterior rotator cuff musculature for any strengthening program. Weight training will not increase ball velocity but will increase the resistance of the arm to fatigue and injury. Weight training should be done the same day as you do these ITP activities; however, it should be after your daily exercises are completed, using the day in between for flexibility exercises and a recovery period. A weight training pattern or routine should be stressed at this point as a “maintenance program.” This pattern can and should accompany the athlete into and throughout the season as a deterrent to further injury. It must be stressed that weight training is of no benefit unless accompanied by a sound flexibility program.

Individual Variability: The ITP is designed so that each level is achieved without pain or complications before the next level is initiated. This sets up a progression in which a goal is achieved prior to advancement rather than advancing to a specific timeframe. Because of this design, the ITP may be used for different levels of skills and abilities from those in high school to professional levels. Progression will vary from person to person throughout the ITP. **“Listen to your body – it will tell you when to slow down.”** Again, completion of the steps of the ITP will vary from person to person. There is no set timetable in terms of days to completion.

Warm-up: We recommend 1 set of 10 repetitions of RTC be performed prior to ITP. Jogging may also assist in warm-up. Jogging increases blood flow to the muscles and joints thus increasing their flexibility and decreasing the chance of re-injury. Since the amount of warm-up will vary from person to person, the athlete should jog until developing a light sweat, then progress to the stretching phase.

Stretching: Since the tennis swing involves all muscles in the body, all muscle groups should be stretched prior to tennis. This should be done in a systematic fashion beginning with the legs and including the trunk, back, neck and arms. Continue with capsular stretches and L-bar range of motion exercises.

Swing Mechanics: A critical aspect of the ITP is maintenance of proper swing mechanics throughout the advancement. Focus on proper biomechanics including a full follow-through should be emphasized on each shot. The tennis coach (if available) may be valuable allies to the rehabilitation team with their knowledge of proper tennis mechanics.

Summary: In using the Interval Tennis Program (ITP) in conjunction with a structured rehabilitation program, the athlete should be able to return to full competition status, minimizing any chance of re-injury. The program and its progression should be modified to meet the specific needs of each individual athlete. A comprehensive program consisting of a maintenance strength and flexibility program, appropriate warm-up and cool down procedures, proper swing mechanics, and progressive intensity of play will assist the tennis player’s safe return to competition.

INTERVAL TENNIS PROGRAM

	MONDAY	WEDNESDAY	FRIDAY
1st Week	12 FH 8 BH 10 min. rest 13 FH 7 BH	15 FH 8 BH 10 min. rest 15 FH 7 BH	15 FH 10 BH 10 min. rest 15 FH 10 BH
2nd Week	25 FH 15 BH 10 min. rest 25 FH 15 BH	30 FH 20 BH 10 min. rest 30 FH 20 BH	30 FH 25 BH 10 min. rest 30 FH 25 BH
3rd Week	30 FH 25 BH 10 SR 10 min. rest 30 FH 25 BH 10 SR	30 FH 25 BH 15 SR 10 min. rest 30 FH 25 BH 15 SR	30 FH 30 BH 15 SR 10 min. rest 30 FH 15 SR 10 min. rest 30 FH 30 BH 15 SR
4th Week	30 FH 30 BH 10 SR 10 min. rest Play 3 games 10 FH 10 BH 5 SR	30 FH 30 BH 10 SR 10 min. rest Play set 10 FH 10 BH 5 SR	30 FH 30 BH 10 SR 10 min. rest Play 1 ½ sets 10 FH 10 BH 3 SR

SR = Serves

FH = Forehand shots

BH = Backhand shots