

On the Road Strength Training and Conditioning

INTRODUCTION

We've been working long and hard to put together an *on the road training manual* for tennis coaches and players. The goal of this project was to develop a series of exercises that you can use when you travel with players to maintain and develop their strength and conditioning.

The manual contains laminated exercise cards that cover the following topics:

- Dynamic Warm-up Exercises and Run Form Drills
- On Court Movement and Agility Training
- Strength Training Exercises out of the USTA Travel Training Bag
- Sample Workouts

The idea behind the manual is that you can take these exercises and develop on-court circuits and have players rotate through stations after completing a warm-up. We have also tried to provide detailed exercise descriptions so you can lead and instruct your players on proper technique and rest intervals.

This project can be seen as a work in progress, and the truth is...this project will never really be "completed." It will continue to grow and expand as we consider new exercises to include in the manual. For example, things to look forward to include a jump rope routine, more strength training exercises, a core strengthening program and static stretching exercises.

We welcome any feedback and suggestions to make this product as effective and user-friendly as it can be.

Thank you and enjoy,

The USTA Sport Science staff.

GENERAL GUIDELINES IN PUTTING TOGETHER A WORKOUT

As a general guide to help you design on the road strength and conditioning programs, we recommend the following the steps that are outlined below:

1. Perform all of the warm-up (WU) exercises included in the manual prior to practicing/ hitting.
2. Perform all of the run form drills (RF) included in the manual prior to practicing/ hitting.

****All of the dynamic warm-up and run form drills should be done prior to practice and competition.**

3. Practice.
4. After practice/ hitting, perform 8-10 movement and agility training (MT) drills included in the manual.
5. Perform 6-10 of the strength training (ST) exercises included in the manual.

INTRODUCTION TO DYNAMIC WARM UP

As should be the practice prior to any physical activity, the body's core temperature should be gradually increased. Start each session with easy jogging and arm circles, side shuffles in both directions with arm crosses over and under, and carioca steps in both directions. These exercises can be done while traversing around the court 3 – 6 times or across a court 8 - 12 times.

Notice that the Dynamic Warm Up differs from the traditional warm up and stretching routines of the past. "Back in the day," after raising the body's core temperature, players were instructed to statically stretch prior to practice and competition. Current research suggests static stretching may actually detract from the athlete's speed and power if done just prior to performance. Apparently, the muscles are put into somewhat of a "relaxed" state and do not respond as efficiently. ***Static stretching is still recommended post practice or competition to aid in improving/maintaining range of motion and as part of a general cool down.***

INTRODUCTION TO ON COURT MOVEMENT AND CARDIO TRAINING

The on court movement and cardio training exercises are designed to stress the tennis player's cardiovascular system, muscles, and joints specifically the way

the game of tennis places demands on the tennis player's body. The exercises utilize the movement patterns involved when playing the game. The exercises, when organized appropriately, utilize similar work to rest ratios experienced by the player during competition.

INTRODUCTION TO STRENGTH TRAINING ON THE ROAD

A tennis player should continue to develop and/or maintain strength while on the road. Unfortunately, coaches and players do not always have access to well equipped gyms or strength training facilities. For this reason, the exercises included in this manual do not require much equipment, other than some elastic tubing, a medicine ball and some cones. The exercises emphasize areas critical for the tennis player. These areas include core strength, leg strength and dynamic balance, shoulder and rotator cuff strength, wrist and forearm strength, and power development utilizing the kinetic chain.

ADDITIONAL COMMENTS

Just a few notes on strength training.

- It is not recommended that large muscle groups be stressed every day.
- Studies indicate that strength gains are greater when muscles are allowed to recover and regenerate as opposed to being stressed continuously.
- Risk of injury and overtraining is reduced when muscles are given time to recover. Do not strength train the same muscle groups everyday; give the muscle groups 48 – 72 hours rest between intense sessions.
- A group of muscles which tend to be an exception to the training principle above is the core (specifically, for this discussion, the abdominals and low back muscles). These muscles apparently recover very quickly and can be trained everyday.

Sample Workouts are also provided to demonstrate how you can coordinate the strength training while out on the road.