

STRONGER BACK

Back injuries are common in tennis. From the recreational player to the professional player, injuries to the lower back, spine and upper back region are frequently heard. Player's like Steffi Graf, Pat Rafter, Andy Roddick and of course our very own Tim Henman have had their playing schedules disrupted or even ended due to an injury to the back.

It is common in elite players who train many hours per week to see imbalances between the right side and left side. Players have a dominant arm which leads to a dominant trunk rotation movement. They also have a dominant leg which they feel more comfortable balancing or pushing off from, which leads to a dominant hip movement.

These balances can cause low back problems if the player does not have the required core stability. In addition, many strokes and movements involve back extension and flexion placing stress on the musculature.

For the club player poor posture and insufficient core stability may be the main culprits for back problems.

Many injuries, as well as difficulties performing specific skills, are the result of faulty muscular recruitment patterns.

A strong back requires a strong core section (abdominals & lower back), flexibility in the hips and spine and a good range of motion in the upper back extensor: trunk rotators, pectorals, shoulder rotators and rear shoulders

Technique plays a big part in the prevention of injury to the player. The slightest bio-mechanical changes in a player's service technique for example can lead to an overload to the smaller muscle groups that have not been used to that extent and should be gradually introduced. In other words having a player hit a 1000 balls on the first day of being shown a new service action is not advisable.

It should be understood that tennis is not the primary cause of the injury, but simply the activity that sets off the symptoms.

Injury prevention strategies:

The key to injury prevention and in this case back injuries is the proper and specific preparation of not only the muscles involved, but the movements that the body will be put through.

Core stability, flexibility and balance are important factors in the strengthening of a tennis player's back. I personally use a more functional approach when training players (professional or recreational) as I find it the most specific and logical method.

To fully understand functional training is to understand how the body actually works and what it is required to do. For a tennis player you need to think how you move on the court or how you hit a forehand for example. You are never doing anything that isolates a certain muscle as everything you do is a complex movement that forces you to recruit multiple muscles to work together. Tennis players who do their strength training mostly on fixed machines for example are actually leaving their body with imbalances due to isolated movements (training a muscle rather than a movement).

An example of a functional exercise is having a player perform a one arm row whilst standing on a balance cushion (see exercise in photo).

Physio balls, resistance tubes, medicine balls, balance platforms, dumbbells are functional equipment a player should be working with more than the conventional weight machines that you find in your gym or health club.

I also highly recommend stretches that involve rotational motion (*see: x-stretch exercise in photo*)

and exercises for keeping the hips and spine loose (*see: diagonal flexion exercise in photo*).

In the exercises seen here in the photo's I have included functional methods using resistance tubes (excellent for range of motion and increasing elasticity in the muscle), physio ball (balance and core stability) and cable machines (range of motion and co-ordination). My favorite saying to the players i work with is: "*pre-hab is better than re-hab*", in other words don't wait for an injury to happen, follow a program that decreases the risk of injury and protects the muscle/joints that are overloaded by playing tennis.

IMPORTANT

Exercise tip 1:

It is advisable to have the correct level of resistance tube, these range from the level 1 (easy) to the most resistant level of 5. To give you an idea I usually have junior players use level 1 or 2, adult female level 2 and adult male players on level 3. But this of course all depends on the strength and level of player. The size of physio ball used should be suited to your height.

Ball size:	Height:
55cm	155cm-172cm
65cm	172cm-183cm
75cm	183cm and higher

Exercise tip 2:

Maintain a good posture and concentration when performing these exercises. It is important to remember that poor posture and incorrect technique when performing strengthening exercises can result in a risk of muscular imbalance and possibly injury.