



## **Badminton: Fitness and Training**

### *Plyometrics*

#### **Andy Allford:**

A lot of the movements involved in badminton require plyometrics because it's a plyometric type sport so the jumping in the rear court for smashing involves a plyometric movement so it involves that eccentric control and that explosion upwards, the lunging forward into the forecourt to retrieve a net involves a certain amount of plyometric movement in terms of stopping muscle lengthening then pushing off.

The biggest thing for us is to trade off with how much plyometric training we do outside of the courts they do so much on the court as well so in one sense it's a performance issue that we want to actually make them better in terms of producing these high forces quickly but also we don't want to overload the body to the extreme that they are doing so much plyometric training that actually it causes injuries therefore they take time off the court.

#### **Sean Maloney:**

I really feel the plyometric training has transferred well onto the court, it means I'm able to jump higher, I'm able to get to shuttles quicker, but also it's made me more economical in my movement so I'm able to use less energy to cover the same distance and that really pays off in those long 3rd setters.

#### **Andy Allford:**

The principles behind plyometric training is trying to produce force as quickly as possible the way in which we do that is getting the muscle and tendon to act rather like an elastic band so once you stretch that unit it has the capability of storing energy to then move into subsequent contractions so it's normally an eccentric contraction, followed by a concentric very quickly so we would construct the game in terms of around an individual athlete to decide what movements they're weak in and decide what plyometric exercise they would need so some might need quick contact type so if their movement in between shots is poor where they're trying to chassis step and do very quick steps or if they're trying to have a heavy load and push off then we'd choose kind of higher level plyometrics as well.

The good thing about plyometric exercises is you can get a little bit more sport specific because you're not as bound in terms of resistance and weight on your back for instance we can actually make it more a like to the actual sport movement.

#### **Sean Maloney:**

My experiences with Plyometric training is something we've used quite a lot here, we use it kind of more in the power development phases when we were talking about the periodised training plan. It's something we want to deliver always insisting on quality rather than quantity, so we want to come into each session making sure we don't have any fatigue, it's something we'd only look at doing maybe once a week and we want to make sure that the quality of each rep within the session is really hot, so we want to make sure we've got long enough rest in between reps and that we're ready to go in each rep.

#### **Andy Allford:**

Also within a plyometric session you do also want to make sure the athlete is really warm, they're going to be high intensity sessions you want to be right up there so they should really be at game pace. However they warm up to game time you want them to be up at that level so plyometrics must be done at 100%, obviously after you've done the plyometric session again cool down and a static stretch would be most useful in terms of preventing injuries in the long term.