Improving Game Fitness for Netball

By Pete Morrow ASI Athlete Training Centre

For the duration of a netball match the dominant players have a superior ability to repeatedly accelerate to each contest faster than their opponent. Netballers who have supreme match fitness are faster over 5-10m, can recover from multiple accelerations at a higher jogging intensity as they move towards the next possible contest and can sustain the intensity of the acceleration throughout the game better than their opponent. This type of training should make up the core of the netballers plan to improve game fitness and it is referred to as Sprint/Recovery Training.

Sprint/Recovery Training has the capacity to develop multiple fitness components within the one activity. Components like acceleration, agility, endurance, speed and power. Traditionally, improved game fitness has been centered around distance running as endurance has been a identified as a critical factor that influences performance over the duration of the game. This still remains true. However, the time spent improving endurance through jogging and running long distance is the time you spend practicing running slowly at a constant pace and in a straight line. This part of the training negates the improvements made in endurance.

For an athlete to develop their game fitness, they need to practice acceleration sprints and agility drills of 5 to 15m. Being explosive over 5-10m determines whether the player gets front position to receive the pass or reach the ball. Training drills need to incorporate agility drills that enhance the player's ability to swiftly change direction and accelerate. These drills need to incorporate work to rest ratios of about 1:3 and the rest periods should be a combination of walking, slow jogging and moderate jogging, depending on the position played and the recovery intensity required. This prepares the athlete to recover whilst running next to the play or moving into position. It is important to consider the types of starting positions and how these may relate to netball. In netball you need to be able to accelerate from a jogging start as you will have moments where you will run next to the play until you see your opportunity to get directly involved. Also you need to start from moving backwards to sprinting forwards as well as from a stationary position where your feet maybe wide as you try to out position your opponent. Incorporating a small block of aerobic running at the start of a training phase still has a role to play to develop a base level of fitness especially if players have been inactive during the off-season.

Sprint/Recovery Training requires the athlete to rehearse many repetitions of accelerating then recovering, over and over again with the athlete focused on maintaining their dedication to being explosive even as the effects of fatigue begin to increase. As a result of Sprint/Recovery Training the athlete will develop their cardiovascular endurance, acceleration speed, agility, power and their ability to repeatedly sprint time and time again. When these characteristics effectively function together the athlete is considered to be game fit.

Dynamic Warm Up By Pete Morrow ASI Athlete Training Centre

A dynamic warm up can be easily defined as a series of movement drills performed in a progressive, deliberate sequence from low to moderate intensity. The initial drills might include jogging using different movements or running drills, and then gradually advancing to fast accelerations and changes of direction. These activities can include sport-specific skill-based activities. This measured build-up in intensity enables the circulatory system to pump blood to the working muscles for a steadily paced warm-up of the soft tissues.

A dynamic warm-up does several important things for the sports person or team preparing to play a game/match:

1. It increases their body temperature. At slightly elevated temperatures muscles are able to contract more efficiently and generate greater force.
2. It prepares the cardiovascular system and gets the heart and lungs ready to engage in vigorous activity. The cardiovascular system is important as it delivers oxygen to working muscles.
3. A dynamic warm up elongates muscles actively. This improves joint range of motion as well as the body's ability to handle the forces experienced during play.
4. It helps to engrain proper movement patterns. This will in turn lead to improved technical performance.
5. The dynamic warm-up wakes up the nervous system and gets the brain talking with the muscles, allowing your muscles to work more efficiently.
6. It facilitates the athlete to focus there mind and to allow them to move into their competitive mind-set.

Static stretching is where you put a muscle under light tension and then hold that position for 15-60 seconds.

Recent research has shown that static stretching may not be appropriate when preparing to play sport because it can reduce the amount of force and power the stretched muscles can generate. Obviously, power and explosiveness are important aspects of sport. Therefore it is recommended that a dynamic warm-up be performed before every practice or competition instead of static stretching.

Static stretching is still very important for athletes since it helps to improve flexibility and joint range of motion – the issue is more about when it should be performed. Regular static stretching should still be a part of every athlete's training program. However, it should be performed after practice or competition, during a cool-down period, or as part of a daily body maintenance routine.

There are some general guidelines that should be followed when performing a dynamic warm-up.

Some things to think about include:

• Each dynamic warm-up routine should follow 3-5 minutes of a light general warm-up activity, something like jogging, riding a stationary bike, or jumping a skipping rope.

• Follow the dynamic warm-up with some light skill work. Do not go right from the dynamic warm-up to all out play. You do not need to rest for long periods of time between exercises; 15 seconds of rest should be enough to recover for the next exercise.

• Dynamic warm-up exercises do not need to be performed on the field or court you play on. You can use a gym, a field, or anywhere you have enough space to perform the exercises safely.

The Dynamic Warm Up in training can be used to help improve fitness, by having minimal rest between exercises and lasting up to 30 min, in competition the warm up should last about 10-20 min and have slightly longer rest periods scattered through the warm up routine.

Cooling Down By Pete Morrow ASI Athlete Training Centre

The game is locked at 56 to 56 and there is only 60 seconds left on the clock as you pass the ball towards your goal third with the opposition closing in on you. As you call for the ball to be passed back to you, you swiftly move forward of your defender and you see your goal shooter positioning herself for a backwards bounce pass. Your goal shooter receives the ball and prepares to shoot from 1.5 metre. The goal keeper tries valiantly to block the shot but the ball travels cleaning through the goal to seal the match 57 to 56. The winners want to celebrate, the losers want to commiserate and no-one really wants to cool down.

However, both teams need to cool down properly because it will help flush the body of the by-products that contribute to feeling fatigued, slowly returning the body from its vigorous competitive state to its resting state, help lengthen the working muscles that for the duration of the competition have been contracting and shortening, refuel and rehydrate the body and commence the preparation for the next training session or competition.

Your cool down should commence immediately after your match or competition has finished and for the duration of the cool down try to continue to drink water and/or sports drink as well as eat foods like a low-fat muesli bar, fruit, liquid meal supplement (Up and Go), wholemeal/grain roll or sandwich, or a low-fat smoothie. The first 30 minutes after competition is the most effective time for the body to restore energy back into the working muscles. Most developing athletes are unaware of how much fluid they lose during training or competition and should be encouraged to slowly drink water.

In your cool down session, include a light aerobic activity (i.e. slow jog, swim, cycle, and walk) of 5-15mins depending on the level of competition, age of athletes and length of competition, followed by 5-30 minutes of quality stretching. Your stretching should involve all major parts of the body and specifically address key areas for your sport and you as an individual. Stretch to the point of mild discomfort and hold your stretch for 10 breaths. Your breathing plays a vital role in stretching as most people tend to hold their breath and tighten up when they start to feel the stretch. Breathing will help to relax the muscles and allow them to soften and lengthen.

The cool down session can be viewed as the first session to prepare you for your next training workout or competition. If the cool down is performed well, then players will recover better from the match or training session just completed which will enhance the quality of the match or training session to follow. Following this process week after week will ensure that you or your team will maximize the rate at which it can improve.