

Importance of a Dynamic Warm-Up

Strength and conditioning coaches and trainers are engaged in a constant search for the best ways to improve sport performance. All things being equal, a bigger, faster, stronger, more conditioned athlete will rule supreme on the playing court or field. While there is constant debate over techniques for boosting sport specific speed, power and strength, I believe we tend to overlook the importance of a comprehensive warm-up, and the role it plays in optimising performance in each and every workout, practice and game.

This leads to the obvious question: what is the best way to prepare an athlete for performance – mentally as well as physically? For many years the accepted norm has been to perform a light warm-up followed by some *static stretching*. In fact, almost anywhere in the world you will see athletes – from schoolchildren to elite competitors – starting their practice sessions with ‘a couple of laps’ and some light stretching. So ingrained is this type of routine in almost every coach’s head that it tends to go unquestioned.

The specific advantages of a dynamic warm-up, by comparison with the more traditional ‘sit and stretch’ routine, are as follows:

1. Because it involves continuous movement, it maintains warmth in your body and muscles. I have found that many athletes drop their core temperature by 2-3° after sitting and stretching for 10-15 minutes;
2. It prepares the muscles and joints in a more sport specific manner than static stretching;
3. It enhances coordination and motor ability as well as revving up the nervous system – benefits which are particularly important for younger athletes who are still ‘learning their bodies’;
4. Finally, and possibly most importantly, it prepares the mind for the workout ahead. Proper mental preparation for any sport is vital and, in my considerable experience with teams and groups, I have found that while many sit-and-stretch routines are an excuse for daydreaming, the dynamic warm-up forces athletes to focus and concentrate on the task at hand.

Other Interesting Reasons for a Dynamic Warm-up

Psychological reason for a warm-up:

The main physiological reasons for a warm-up are:

- To increase the core temperature at least one or two degrees Celsius

- To increase heart rate and blood flow to skeletal tissues which improves the efficiency of oxygen uptake and transport, carbon dioxide removal, and removal and breakdown of anaerobic byproducts
- To increase the activation of the Central Nervous System (therefore increasing coordination, skill accuracy, and reaction time)
- To increase the rate and force of muscle contraction and contractile mechanical efficiency (through increase muscle temperature)
- To increase the suppleness of connective tissue (resulting in less incidence of musculotendinous injuries)

Example of a Dynamic Warm Up

-Should take 10-15 minutes and athletes should have begun to sweat a little bit.

Light Jog	To get blood flowing, heart rate increased
High Knees	Form not speed, get knees up as high as possible
Butt Kicks	Staying on the toes and quick feet
Shuffle	Maintaining a low athletic stance with chest up
Carioca	As much hip rotation as possible, knee drive on back leg
Ankle Pops	Bounce off both toes while keeping the knees very slightly bent
Glute Walk	Knee up to chest while stretching the glute, take a step after each
Frankenstein March	Legs kick as high as possible trying to touch hand
Pointers	Walking forward touching pointed toe
Quad Walk	Walking forward pull left ankle to butt and touch opposite toe
Over the Fence	Face one direction and drive knee up while bringing other knee up
Prisoner Lunge	Lunge forward with hands behind head
Leg Hugs	Bring knee up and towards the center of the body, switching legs