

RAMP warm up for Orienteering

Mehmet Karatay

What's R.A.M.P.?

The R.A.M.P. warm up protocol is used by many athletes and strength & conditioning coaches. You'll probably find that most of what you already know about warming up fits into this scheme, but there may be some extra elements which you haven't thought about. The elements overlap so there may not be a distinct transition from one to the next. The name really is a pun about 'ramping' up the intensity.

R.A.M.P. stands for:

Raise (pulse & body temperature) This is literally warming up your muscles and your cardiovascular system. A warmer muscle is more elastic (so less likely to tear) and processes oxygen more efficiently so you can do more for the same puff.

Activate (key muscle groups) This gets your brain firing so the neurons remember how to control your major muscles. It is especially important if you've been learning new movement patterns recently, such as how to power through your posterior chain (glutes, calves, hamstrings, erector spinae).

Mobilise (joints) Take your joints through their range of motion that you'll be using. This does two things: it releases synovial fluid into the joint, which lubricates the joint lessening wear and tear, and it gets your brain mapping where your body is (proprioception) so you have more control over what you're doing.

Potentiate Finally, get your body working at the full intensity you're going to be using it, before you start your run. The key here is *for a short time* so the volume is low. This gets you ready for the intense but long event that's coming up.

Of course, a warm up also helps prepare you mentally. It can help you switch off from the day, and by being a routine you do before each time you orienteer, help you kick start your brain into orienteering mode.

As with most things, try to be proportional to what you're about to do. If you're not planning on sprinting during the main run, you don't have to potentiate sprinting. If you're only going to be running for 10 minutes, you probably don't want to spend 20 minutes warming up unless it's a very important event. If you know you'll be jumping over logs, it'll be a good idea to get your body ready for it.

So that's the theory in a nutshell but how can you actually apply this to orienteering? Here is one method I've come up with...

Raise (pulse & body temperature)

This can be done on the way to the start. Grab an old map, if convenient, and go for a gentle run for five minutes. If you have a map with you, try looking at it as you run and start planning routes between controls. This will start warming up your mind as well as your body. If you can, try to run through some terrain at a gentle pace, possibly hop over a few logs etc if that's what you do when you're racing.

Activate (key muscle groups) and Mobilise (joints)

When you run, the majority of the power should be coming from your glutes, but you want to activate and mobilise all the muscles and joints you'll be using.

Here is a suggested progression:

- Wind mills (arm rotations, keeping shoulders back. Shoulder position and posture are important for good form and power)
- Hip-opener walk
- Running mans (few each side, possibly as a walk). Mobilises most of the joints we use for running.
- Toe tip single leg squat (works on balance and stability, as well as glute activation)
- Lunge walk with rotation (your hips rotating in relation to your upper body helps drive power through the glutes)
- Side lunge
- High-knee skips (glutes & posterior chain)

When doing these activation and mobilisation exercises, remember to concentrate on good form. Movement should come from the hips, not the knees. Your knees should be stable and no further forward than your big toe. If your knee isn't over your big toe when your hips are push back into a squat or lunge, then you need to improve your movement patterns. Speak to a coach for some advice.

Potentiate

This is when we want to make things orienteering specific. We want to work at the full effort that we will use during the main run, but only for short periods of time. Try to do these with a map in your hand (if possible) to prepare you for looking at maps between efforts too. Jog in between exercises, instead of walking.

- A few faster terrain runs (50 to 100m)
- Jump over a few obstacles, logs, stream, a small bush etc.
- Zig-zag sprints (we're constantly avoiding obstacles in the forest) 5 each way
- Run up and down a small slope at your race pace

Comments

For this example implementation of R.A.M.P. I've avoided anything which involves lying on the ground.

The general intensity should increase throughout. How long it all takes depends on you and what you're getting ready for. Only include the Activation and Mobilisation elements that you can do with good form. There are easier variations possible for all of these, so seek them out if you need to and then work on improving your form when you're not warming up for an event. The Potentiation should reflect how you move when you're racing. If you never run up a slope, or never change direction quickly, you don't have to include them in your warm up.

Try to time everything so that you start your Potentiation about 5 minutes before your call up time. Stop a minute or so before your call up time and focus on the race. Hopefully, your heart rate will quickly raise again once you're through the start boxes and your body will know what's coming!

You may have realised that there is no static stretching (ie holding a position for a given length of time) in the R.A.M.P. warm up. This is on purpose. Static stretching does not help prepare your body for exercise, if anything, it increases your likelihood of injury. Muscles are weaker after static stretching for a period afterwards. The pull on your muscles also confuses the brain's proprioception and so the brain can try to get the body to do movements that it's not ready for.

Most of this is based on research from sport scientists in the 1990s and 2000s. Before that static stretching was what you did because it was what you were told to do, but there was no research backing it up.

On the other hand, gentle stretches after a run may help with recovery but even that is debated...

Links

UK S&C Association RAMP warm up article for Scottish Athletics:

<http://www.scottishathletics.org.uk/wp-content/uploads/2014/04/Warm-up-revisted-.pdf>

Movement prep: <https://www.youtube.com/watch?v=tO3yC2ctRpg>

Dynamic stretching ideas: <https://www.youtube.com/watch?v=FSaTZBxHfvI>

Running mans: <https://www.youtube.com/watch?v=Ezidck4hgg8>