

## WARM UP AND COOL DOWN ARE MORE IMPORTANT THAN WE THINK

By Rob Maxwell

Let's face it, most of us view the warm up and the cool down as a "blow off" portion of the workout. I know I have been guilty of that. We can probably blame time on that. We know we only have so much time for our workouts, so we're ready to get right to it. And being the efficient people that we are, we want to cut to the chase. I also think that part of the reason we don't warm up and cool down is we don't understand exactly why it's important and how to best do it. Let's try to shed some light on to that.

### WARM UP

First the warm up: Why do we warm up? Let me first say that stretching is NOT a warm up! I think most of us are aware of this fact by now. Stretching is to improve flexibility, and should be done after we're completely warmed up. The main reason for a warm up is to raise your core temperature. The system is far more efficient when the core temperature is higher. The muscles are more elastic and the system is ready to go. Another reason for a warm up is to increase blood flow to the muscles that you're getting ready to train. Again, this leads to a more efficient system ready to go. A third reason for a warm up is to get the mind mentally ready to go. I don't know about you, but when I first get out of bed, the thought of launching into a tempo run doesn't sound too appealing. But if I know I'm going to gently get myself up to that mode, I'm more ready to head out of the door. There are other reasons for a warm up, but I would say these are the big three. I must stress again that the main reason is to raise the core temperature.

How do we warm up? As far as the "mode" goes, for running, cycling, and swimming we naturally do a lesser level of whatever mode we're getting ready to do. And this holds true for any specific activity. If we're running, the best mode for a warm up is walking followed by a light jog. If we're doing a general activity like weight training, then the mode could be any light aerobic exercise that raises the core temperature. In a triathlon, the swim is the perfect warm up for the other two events, but we still need to do a light warm up before we swim... Swim easy. Most studies show that the ideal length for a warm up is 5-15 minutes. If the activity is going to be very intense the warm up can be longer. The more intense the workout is going to be, the longer the warm up should be. The intensity should be light. Again the goal is to raise the core temperature. Most experts believe this falls somewhere in the 40-60% of the VO2 Max. This is a pretty low to moderate intensity. The idea is to start out easy and build... A little. A mistake I see people use often is building into a strong running pace during the warm up. That is not the idea. Keep that to the work out. Remember the goal.

After a general warm up, it may be recommended to do some active (dynamic) stretching. This is not static stretching. An example of this would be "monster walks", "but kicks", and walking lunges. This helps prepare the mind and body for more intense work to follow. You could follow the same idea of arm swings, etc. prior to swimming or weight training.

Interestingly, there has been a large amount of research lately showing that doing STATIC stretching (regular slow stretching) prior to activity may impede performance. This has especially been shown in the strength world. So for now, hold off on the toe touches prior to the 5K, and save it for after the race.

## THE COOL DOWN

How many of us stop our run, swim, or bike and just head to the car or go inside? I know I have been guilty of that, and again, it's usually an attempt to "save time". When I save time, I hamper my recovery. The main reason for a cool down is to reduce venous pooling. When we're exercising, we've dramatically increased the blood flow to our extremities. And the working muscles, which are still active, pump that blood flow back to the heart. When we're exercising and we simply stop, the blood flow remains in our lower legs, which is called venous pooling. With that comes that feeling of being dizzy, and possibly passing out in extreme cases. In any case, we want to limit venous pooling as much as we can and allow blood flow to get back to normal. We accomplish this with a cool down. Another reason for a cool down is to help rid the bloodstream of that nasty lactic acid. Lactic acid is a natural byproduct of intense exercise. The more it pools in our system, the slower we will recover. By doing a cool down, we help flush our system of lactic acid. We won't get rid of all of it, but we will lesson the amount that remains after the workout.

Like the warm up, we do our cool down the same way. We basically just reverse our cool down. We do less of the mode we were doing. Studies show a cool down should last 5-15 minutes, and again longer for more intense exercise. The intensity should be very low like it was in the warm up. A big difference is that if you're using heart rate as a guide, it will not be a good guide for a cool down. The reason is due to EPOC (excess post oxygen consumption). This means our VO<sub>2</sub> is elevated after a workout, which means our HR is as well. So the HR will stay more elevated than it would if we hadn't exercised. So the best gauge we could use for a cool down would be RPE (rate of perceived exertion). Simply go very light in whatever activity and let your HR come down slowly.

## CONCLUSION

I hope you'll join me in warming up and cooling down now. I firmly believe that it will not only help your performances, but will also help you enjoy your exercise experience more.