

Heat Acclimatization: A Program for the Flying Pig Marathon

Background:

Could be rain? Could be snow? Could be 75 and sunny?

The Flying Pig Marathon has been around since 1999 with this year's race weekend marking the 27th event. As Cincinnati's know all too well, weather in the Queen City in May is unpredictable. Race conditions could range from freezing cold to the perfect temperature of 40s-50s to 70+ and humid. When the weather is hot and humid, even well-conditioned athletes are at risk for heat-related illness and heat stroke. There is a range within heat illness that includes dehydration and heat cramps up to severe heat stroke that can lead to hospitalization and death. It is possible to reduce your risk of heat illness and heat stroke by incorporating heat training into your regular running program. We have included here an example of a program with suggestions on timing and intensity for heat acclimatization while training for the Flying Pig Marathon weekend.

Program Design:

This short program is designed for 4 weeks of heat training to be completed within the month or two before your event. Optimally, heat acclimatization requires at least 10-14 days even for trained athletes. Heat acclimatization can occur through various methods designed to raise your core and skin temperature and mimic the conditions you may experience on race day. This includes a real or simulated heated environment when exercising. This could be training in a heated room, training at the hottest time of day, wearing extra layers of clothing or heat gear designed to increase your temperature, or adding heat exposure after a workout in hot water or in a sauna.

As you begin the program, especially the first few days, training is completed at a lower intensity and shorter duration. But, after these initial few days, heat acclimatization begins to develop, and the risk of heat related illness decreases. It is important to note that missing multiple days of heat training consecutively will diminish your ability to build adaptation.

You should be on the lookout for symptoms of heat illness during your training. This could include worsening fatigue or inability to recover, dizziness, headaches, nausea, vomiting, or other signs of dehydration. If these symptoms are to occur, it is important to scale back or stop your training so that your body can recover.

Hydration recommendations:

Throughout this training program, maintaining good habits around rehydration after exercise will be crucial to recover and preventing symptoms of heat stress. A great way to estimate your fluid loss is based on measuring your weight before and after the workout. You can then replace your fluids based on how much your weight changes.

Adding electrolytes through various sports drinks or electrolyte packets, or even supplements such as salt tablets, can increase your rehydration as well. Your fluid losses during heat training will increase significantly because as your body adapts to heat, your sweat production can increase as well.

Week 1 and 2: Initial Acclimatization

- The goal at this time is to complete a shorter, lower intensity workout during week 1
 - 20-30 minutes in length
- Build up to 30-40 minutes in length by week 2
 - Add in higher intensity exercise during this week of about 75-80% effort or around zone 3 in heart rate training
- 5 days of heat training + 2 days of cooler environment training or rest

Week 3: Gradual increase in heat training to reach peak intensity/effort

- Increased time and intensity of your workout → build up to 45-60 minutes
 - Intensity is 75-80% of your maximum effort → this is around a zone 3 heart rate
 - It is preferred to complete daily heat exposures for optimal training, but you can build in an alternate "normal training" day if needed (without heat exposure)
 - Can consider adding a workout with shorter, higher intensity intervals (5-10 minutes) with lower intensity in between to help simulate the intensity on race day
 - 5 days of exercise in heat + 2 days in a cooler environment or rest
 - Consider replacing or adding-on to the weekly long run with a longer duration heat workout

Week 4: Taper and Optimization

- Day 1 and 2: Perform shorter heat exposure at easy pace, about 30-45 minutes
- Day 3 and 4: Reducing exercise volume, minimal heat training, focus on pre-race nutrition and hydration
- Day 5: short, light exercises with heat exposure, 20-30 minutes, easy pace
- Day 6: Relaxation, rest, prepare for race day
- Day 7: Race day!

Good Luck to all racers!

Flying Pig Medical Planning Committee

