

Dear runners,

The 10th edition of the Weir Venloop is about to commence. On 21 and 22 March thousands of walkers and runners will hear the starting signal on distances varying from 500 metres for the Bambinos to the 40 km walk. The risk of injuries or other medical issues is always higher during races than normal running practice. As medical partner of the Weir Venloop, the department of Sports Medicine of VieCuri offers a number of tips and interesting facts below in order to be properly prepared for the start.

### **Weather**

Weather conditions can have a major influence on the functioning of the body and therefore on the performance of the participants. Especially when participants haven't taken proper precautions. Factors that may influence the performance are outside temperature, wind and humidity can have a major influence on performance. It is therefore important to keep an eye on the weather forecast and to respond accordingly. Consider adequate clothing for wet and cold weather. The weather in the Netherlands is (generally) cool and wet at the end of March, but there is also a chance of warm and sunny weather. Where it is important to consider your water balance. The effect of a warm sunny day is generally much greater if the prior period (in which the training occurred) was significantly cooler.

The current weather forecasts suggest that it is unlikely that there will be extremely warm or cold weather during the Weir Venloop. We advise checking the weather reports in the days leading up to the race and to wear clothing suitable for the forecasted temperature, rain and wind.

### **Fluid**

The water balance of endurance athletes is essential. During intensive workouts of more than an hour (a half marathon, for example) the runner can sometimes lose more than 3% of their body weight through sweat and urine production. From 2% of fluid loss (this is 'only' 1½ litre for the average runner) a demonstrably reduced performance is already present. With shorter workouts fluid loss probably does not influence the performance (yet).

Every year runners and other endurance athletes – primarily in the summer months – are admitted to hospital due to a shortage of fluid (dehydration). Therefore it is important for endurance athletes to take sufficient fluids during the race. Too much fluid, especially excessive amounts of normal water, can also cause problems during longer periods of exercise (the half marathon and the walking distances of 25 and 40 km). Excessive amounts of water can result in a relative salt shortage in the blood. In principle this is more dangerous for health and harder to correct than a fluid shortage. Generally stated, drinking only when one is thirsty will not cause serious dehydration or a salt shortage. However the thirst mechanism is not reliable for everyone. Moreover, thirst only actually arises when there is already a shortage of water. Research shows that a slight fluid shortage will not influence the performance. For the average recreational runner it can be said that it is sensible not to skip any drinking stations and to drink something at every drinking station. Fluid is absorbed quicker – and gives less of a bloated feeling in the stomach – when the amount is large enough to stimulate stomach movement. Approximately 200 ml (a full cup) is sufficient for this. The risk of too much fluid intake and with it a relative salt shortage is larger with runners who run relatively slowly and are active for long periods, taking large quantities of fluid. Obviously it is advisable to drink more when the outside temperature is high. However, even when it is cold – and even when frosty – there is still a loss of fluid which needs to be replenished during longer periods of exercise.

Regardless of the weather, it is good to drink sufficient amounts prior to the start and certainly not to start the race thirsty. One can decide how much fluid to take en route. During the Weir Venloop there are drinking stations every 5 km to give the participants the opportunity to keep sufficiently hydrated. It is very unwise – and rather unnecessary in view of the distance between the drinking stations – to accept drinks from others without knowing for certain what it is.

### **Food**

Food is as crucial when running an endurance race. The most important fuel during intense physical activity is carbohydrates. Carbohydrates are stored in the liver and in the muscles. This store is (on average) adequate for approximately 90 minutes of exercise. For a maximum store of carbohydrates, people can eat slightly more carbohydrates in the days before the marathon (grain products, pasta,

rice, sweets). Eat these meals after training for optimum results. Training in this period should no longer be strenuous.

With walking, the largest part of the energy is supplied by burning fat. Consuming extra carbohydrates for a good performance is less important. However, the walkers are generally active for much longer and this means there is also a need for food en route.

It is important to also replenish the energy stocks during the race. This will not be necessary for many half marathon runners. Experience shows that there will be energy stock depletion with distances longer than 25 km. However, there are major individual differences in this area. The need for extra food en route increases with longer periods of exertion (and therefore at a slower pace) because the normal metabolism also uses up energy.

During exertion at max a total amount of 60-80 grams of carbohydrates are absorbed by the body per hour. Liquid food and sports drinks with excessively high concentrations of sugar are also not absorbed (quickly enough). It is best to opt for so-called isotone thirst quenchers en route. These are absorbed well and contain sufficient carbohydrates for replenishing the energy stocks. Food that is too sweet and drinks with a high sugar concentration (energy drinks) retain fluid in the stomach and intestines. This can lead to nausea and diarrhoea and the absorption of fluid from the intestines is delayed. Research shows that liquid carbohydrates are absorbed far better than solid carbohydrates. Because fluid and carbohydrates require some time to be absorbed by the body from the stomach and the intestines and to become available to be burnt in the muscles, the intake of fluid and energy is far more important at the start of the race than at the end. With the half marathon this means that primarily the first two drinking stations are important.

### **Injuries / sickness**

Below a number of frequently occurring problems which can arise when running and during long walks, with relevant advice

#### ➤ Skin problems

One of the most frequently occurring problems during long runs and walks are blisters and/or scrapes. The strain from running and walking can cause the foot to chafe along the shoes resulting in blisters and scrapes. If you suffer from these, please report to the nearest First Aid post for treatment. Places where skin comes into contact with shoes or clothes (for instance, heels, the nipples with men, and groins) can be protected from chafing with Vaseline or by covering the areas with a plaster. This can often make running more comfortable. To prevent nail problems it is advisable to cut your toe nails before the race (not too short!).

#### ➤ Muscle and tendon complaints

This can vary from a tear in the calf muscle to straining the Achilles tendon, for example. Generally with tendon issues this concerns a recurrence / worsening of an existing complaint. If you experience an injury it is not advisable to leave this untreated. You will run the risk of making the injury worse, to such an extent that you will be injured for a longer period of time. If you suffer an injury, it is advisable to report this to the nearest First Aid tent. Sometimes a tape or bandage can assist continuing in a responsible way.

#### ➤ Muscle cramps and illness

Muscle cramps occur primarily after completion of the race or in the final part of the race and are often a sign of fatigue/exhaustion and/or lack of carbohydrates. There is no scientific proof that cramps are caused by a shortage of fluid or salt. With a rising onset of cramp it is often effective to reduce the tempo slightly and to drink something containing carbohydrates (isotone thirst-quencher).

Following a recent period of illness with a fever it is not sensible to run without a few, trouble-free trainings. The same applies to recently sustained injuries. In case of doubt, it is sensible to request professional advice from your general practitioner or a sports doctor.

### **Sudden cardiac death**

Thankfully heart complaints and sudden cardiac death do not occur very frequently with athletes! The chance that you will experience (unexpected) heart problems during a half marathon is therefore small. Despite this, every year there are a number of runners who experience heart problems in the Netherlands when running, or after they have finished.

If you experience one or more of the below symptoms during or after the race, it is advisable to request an assessment at the nearest First Aid points.

Symptoms which could indicate a heart problem are:

- shortness of breath (other than due to poor condition),
- chest pain, sometimes radiating to the arm, throat or jaw
- heart palpitations, irregular heart beat
- dizziness / feeling faint.

In the case of injuries and other medical problems during the race, the medical personnel present will advise you whether it is possible to continue the race with the problem that has occurred. In some cases the medical assistance can issue non-negotiable advice to the organisation to remove a runner from the race. Naturally, this only occurs in case of problems which would pose a serious risk to the runner.

#### **Contact details and medical data**

If you have known medical problems and/or use medication, it is essential that you carry something with you with information about the present illness or the medicines you use during the race to allow adequate care to be provided.

All runners are advised to write their contact details (name, address and telephone number of a contact person) on the back of their starting number in order that medical assistance knows who they should contact or where to find additional information in the case of an emergency.

For additional last minute sport-related medical advice please contact the department of Sports Medicine of VieCuri on +31 (0)478-522778, [www.sportgeneeskundeviecuri.nl](http://www.sportgeneeskundeviecuri.nl) or via our Twitter account @SportVieCuri

We hope that you will enjoy a wonderful 10th edition of the Weir Venloop and we wish you a pleasant race!

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