

HOW TO SURVIVE THE TOURNAMENT

Preparing for tournaments and things to remember during a competition might seem simple and basic but they are more complex than you may think. Many people also disregard HEMA competitions thinking that they are not professional athletes and it is just their hobby, so they do not need to do much. It's just a bit of fun, right? It's not like we're training to go to the Olympics or something. Well, maybe we won't go to the Olympics (at least not for some time) but we are training in a full contact and sometimes quite brutal sport. Preparing for that as well as some level of self-care is essential if we do not want to harm ourselves or end up with an injury which can drag along for quite a bit of time later, and might need help from a professional physiotherapist.

I will not be writing here about how you should be training before the tournament. That is not what this article is aimed at. Yes, most of us are not professional athletes and we do not have time (or sometimes the will) to train three times a day everyday (to be honest, I would be delighted if I could just train, but that is me). But most of us have some kind of training regime even if this is just going to your usual class once a week and sparring once a month. How much and what you train is something totally up to you. Instead I will try to advise you what you should do outside of training.

The one tip I can give you about training is probably: try not to over-train yourself before a competition. It will not do you any good if you start training for four hours a day, three days before the event if before that you were training once or twice a week. Sudden peaks of activity like that can cause injury, and conditioning should be trained over time and in stages.

SLEEP

Before the competition you should probably rather rest and save energy. The days before you should get a good night's sleep (I know it might be difficult if there is a get-together with the other competitors in the pub the day before) and eat a carb-rich meal. If you have trouble falling asleep, try not to eat just before going to bed. Staying off stimulants like tea or coffee and alcohol at least 6 hours before bed also should help you sleep. You might also try eating food rich in tryptophan, which is a natural sedative and helps to catalyse the hormone melatonin [Wyatt et al., 1970]. Bananas, almonds, oatmeal and milk are rich in tryptophan and work well when combined with some carbs too. Again, getting a good night's sleep before a tournament might be something hard to achieve, especially if it is somewhere far away from home, you need to travel there or there are parties happening beforehand, but believe me that a sleepless night might really be a major factor negatively influencing your performance. Lack of sleep can make you more prone to injuries, decreasing muscle recovery times and cutting down reaction times [Milewski et al., 2014].

FOOD

The morning of a competition day is also very important and you should eat a carbohydrate rich breakfast no later than 1h before the start of the tournament. This will wake you up and give you an energy boost, but also should not make you feel heavy while exercising. If you do not eat anything, that might result in your blood sugar dropping and in extreme cases in you fainting, or just feeling dizzy, nauseous, and tired which also does not help when swinging swords.

Why should you eat carbohydrates? They will provide you with energy and they are easy to digest [Burke et al., 2011]. Try eating bread, pasta, rice and some vegetables. Foods rich in complex carbohydrates such as oatmeal are also good to eat to prepare as they should provide you with sustained, slow-burn energy over time. Avoid foods high in protein and

fat since they are harder to digest. They will also not provide enough energy during the competition itself.

During the competition, do not forget to have some snacks with you in case the tournament takes a long time, or if you are taking part in multiple categories. You should still avoid high fat and protein rich food. Fruits are generally a good idea. Myself, I like cereal or sports bars because they have everything already measured in them, but they are probably not the most tasty option. A good idea might be also glucose pouches if you find yourself in need of a quick energy boost. In case of an emergency when you get to wait a really long time for your next fights, or you are tired after previous bouts but still do not want to eat anything heavy it is something that might save you.

WATER

The most important thing is probably fluid intake. Make sure you drink at least 2 liters of water a day before the competition (but to be fair you should drink around that every day). This will at least partially help you to maintain some level of good hydration during the competition. A proper level of water is essential for the body to maintain blood volume, body temperature, as well as for your muscles to work [Casa et al., 2005; Costill, 1977]. And to do that sweating is essential. While you sweat you will lose a lot of water. In HEMA you will sweat a lot as you will be wearing heavy and thick protective equipment, not to mention the physical activity itself, of swinging sometimes quite heavy metal objects. Becoming dehydrated is quite easy even without a heavy padded jacket while exercising, and it might result in dizziness and loss of coordination [Cheuvront et al., 2003]. I do not think that in HEMA you can drink too much water as water loss is quite substantial, but drinking more than is comfortable is also not the best idea because you might end up bloated and in need of visiting the toilet. We need to remember though that thirst is not the best indicator when it comes to hydration in sports! You will already have lost a substantial amount of water which will need replacing before you will even feel thirsty [Engel et al., 1995]. The best idea is to drink in small amounts when you can. Keep a bottle of water or sports drink close to you and try to take few sips every time you have a break. I highly recommend sports drinks as they also contain carbohydrates, electrolytes, and sodium. Some people do not feel like eating when they are adrenalised in the middle of a competition, and sports drinks will help to maintain energy levels. We lose electrolytes as well as water in sweat, and these also should be replaced [Rehrer, 2001]. Sodium will promote thirst and will help with water and carbohydrate uptake in the intestines as well as reducing urine production post-exercise [Twerenbold et al., 2003]. Of course, plain water is also perfectly fine when it comes to fluid replacement and you can just drink water or interchange with sports drinks [Gonzalez-Alonso et al., 1992]. We also need to remember that we lose water even after the end of physical activity during the recovery phase [Gonzalez-Alonso et al., 1992]. For this reason we should not stop drinking fluids after the tournament ends, and again we should try to drink at least 1 litre (but ideally 2 litres) of fluids afterwards [Kovacs et al., 2002]. The colour of your urine might be a good indicator of how well hydrated you are [Armstrong et al., 1994]. If it is dark yellow you probably need to drink more.

Are caffeine and energy drinks good ideas? In moderation yes. But they should not be the main source of water you consume during or after competition. One energy drink or a cup of coffee can help when your energy levels start falling. But drinking too much caffeine might just cause you need to go to the toilet more which will end up with you losing more water than you are gaining [Armstrong, 2002; Maughan and Griffin, 2003].

TEMPERATURE

Another thing worth remembering is that if you feel really warm do not try to cool yourself down by going outside to the cold (especially in the winter). That might be good when you are in a sauna, but not if you are competing. Warm temperatures are better for your muscles to operate effectively. When you are warm more blood goes to your muscles and with it more oxygen, which means better performance. When cold, less blood goes to them, and so your muscles are slower to respond and tendons are stiffer. If you cool them suddenly only to start exercising again it might result in injury. Pulled or torn muscles are very painful and treating them is not easy. If you need to cool down do not do it by extreme changes of temperature. Taking off your mask and your jacket for a moment but putting on something dry instead is the best option. You will not cool down so easily but also you will keep your muscles warm for the next part of the competition. I always have changes of t-shirts and a hoodie with me to put on when waiting for eliminations, my pools or the next category to start. Re-warming up might be a good idea after a break as well.

LAST WORD FOR THE FEMALE FENCERS(AND THEIR COACHES)

An additional thing which might be of importance for the female fighters is the day of their cycle. If the tournament happens during your period you should remember and prepare accordingly - and I am not only talking about getting sanitary pads, tampons, and some painkillers (as a side note: strong painkillers might mask a pain from injury which might cause you to injure yourself during a tournament) [Bruinvels, 2016]. Remember that during menstruation you will be disadvantaged when it comes to your performance [Sarwar et al., 1996]. That obviously does not mean that you will be unable to win (Olympic female athletes have won medals during every stage of their cycle) but it might need a bit more work from your part [Martin et al., 2017; Lebrun, 1993]. Again, each of us is different and we know our bodies best but levels of hormones would change and those hormones directly influence your performance [Hackney, 2016]. Slight anaemia from low levels of iron can also make you feel more tired and sluggish, which will obviously also affect your fencing.

While talking about women we also need to mention adrenaline, which is a stress hormone, and that female and male organisms deal with adrenaline differently. Both sexes display similar levels of adrenaline secretion but women will reach peak adrenaline levels later than men but, stay on the plateau of it for longer while men levels would rise higher sooner and similarly quickly drop [Frankenhauser et al., 1976; Verma et al., 2011]. This means that women might need a bit longer time to warm-up and prepare for fighting.

BRING A FRIEND

Most of this we can remember and do on our own, but having somebody around who can remind you to drink or eat, or to just bring you some water when you run out is also a good idea. Such a person also can notice if something is wrong, especially if you have had previous problems during competitions.