HYDRATION GUIDE

N-FUSE SPORTS

Dehydration

Dehydration is a killer for all athletes. When an athlete becomes dehydrated their performance is at risk. Drinking the correct amount of fluid for your body can prevent this. However, everyone is different and the amount of fluid you need all depends on your sweat rate. Therefore, athletes wanting to perfect their race day nutrition need to conduct a sweat race test. Some athletes when competing in high degree temperatures can sweat up to 3 litres per hour. For the body to perform at its best this all needs to be replaced with fluids.

Calculating sweat rate

Only a small percentage of athletes know how much they sweat but it is actually easy to calculate. Below we will show you how it can be calculated in a simple and easy way. However, a sweat rate test is best to be taken more than once for accurate results. The reason for this is because there are certain factors that can determine your sweat rate. These factors are: How much power you produce or how far you run, the temperature, the clothes you wear and your generic make-up (some people sweat more than others).

How to calculate sweat rate

1. Empty your bladder and record your weight (in kg). Record your weight ideally nude or with as little clothing on as possible.

2. Perform your workout, race or event and record how much you drank (in litres). Do this by measuring your bottle/bottles before and after and record the difference.

3. Post exercise remove all excess sweat with a dry towel. Empty your bladder and then record your weight (in kg), again ideally nude.

4. For more accurate results measure total urine production. If not possible estimate this by using 0.3L per visit to the toilet.

5. Subtract your post-exercise weight from your pre-exercise weight to get the weight you lost during exercise.

6. Now subtract the weight of the bottle/bottles before and after to obtain the volume you consumed.

7. You can now perform the calculation: Weight loss + Volume consumed - Urine loss / Time (in hours) = Sweat rate

| Weight before (Kg): ___ | − | Weight after (Kg): ___ | = | Weight loss (Kg): ___ |

| Bottle weight before (Litres): ___ | − | Bottle weight after (Litres): ___ | = | Volume consumed (Litres): ___ |

$$\text{Sweat rate (Litres):} \quad ___ = \frac{\text{Weight loss (Kg):} \ ___ \ + \ \text{Volume consumed (Litres):} \ ___ \ - \ \text{Urine loss (Litres):} \ ___}{\text{Duration of exercise (Hours):} \ ___}$$