Choosing a sport drink for swim practice

Hydration for High Performance Swimmers

Context: 2 hour training sessions (intervals)

MONITOR YOUR HYDRATION STATUS

There are two easy methods for doing this:

1) **Weigh Yourself Before and After Training**

For every 1 kg of bodyweight lost, replenish with 1.5 litres of fluids afterwards. Aim to close the gap with lost water and fluid consumption. (Do not aim to gain fluid weight during training**.**

2) **Look at the Colour of Your Urine**

- Pale yellow (like lemonade) is a sign of good hydration status
- Dark yellow* (like marigolds) is a sign of dehydration

*Supplements that contain vitamin B2 may lead to dark yellow urine shortly after ingestion.

DAILY FLUID NEEDS

Chronic dehydration goes easily unnoticed which leaves the athlete unable to "catch up" the day before or day of training - it can take *24 hours or longer to rectify dehydration*. The following is a guideline of recommended daily fluid intake outside of exercise:

Body Mass		**Litres**	Cups
50 kg (110 lbs.)	x 0.036 L	**1.8**	7.5
60 kg (132 lbs.)	x 0.036 L	**2.2**	9.2
70 kg (154 lbs.)	x 0.036 L	**2.5**	10.4
80 kg (176 lbs.)	x 0.036 L	**2.9**	12

- Water should be your main fluid source
- Drink most of your fluids *between* meals (don't flood your stomach while eating)
- Add more fluid for exercise, sweat losses, and exposure to hot or extremely cold weather

TRAINING HYDRATION - 2 Hour Practice

PRE-EXERCISE

- 60-90 minutes before, consume ~500ml of fluids
- 15-30 minutes before, consume ~250ml of fluids

DURING EXERCISE

Quantity: Consume a total of 500 to 1000ml of fluids every hour.

Frequency: Take big gulps every 15 minutes (or more frequently).

Liquid Carbohydrates (CHO): Ingest a *minimum* of 30g CHO per hour in the form of sports drinks or gels (with water). You can aim for the upper limit recommendations of 1g per kg of body mass per hour. So, if you are 60kg, you would consume up to 60g CHO per hour of exercise.

Percentage of CHO: A carbohydrate drink must fall in the range of 4-8%, or 4 to 8g of CHO for every 100ml of water. Most sports drinks such as Gatorade, Powerade, and Accelerade adhere to this. Gels can also be used, but must be accompanied by at least 240ml of water.

Electrolytes: Sodium is the main electrolyte lost during sweat and exercise. A proper concentration of sodium is required in the body for optimal functioning and sodium needs are usually higher for athletes. Every 1 litre of fluid should contain a range of 500 to 700 mg of sodium. An easy alternative is adding 1/3 of a teaspoon of sea salt or regular table salt, and/or including salty foods around exercise (before and after).

POST-EXERCISE

- Within 30 minutes of completion, consume a liquid-based recovery formula which includes electrolytes (mainly sodium).

OTHER TIPS

Fluids to Avoid During an Event

- Drinks or sports drinks that have *fructose, fructose syrup* or *high fructose corn syrup* as the only, or the first sugar ingredient on their list
- Undiluted juices
- Alcohol (do not consume at least 48 hours before an event)
- Pop (regular or diet)
- Carbonated beverages in general

Make Water Taste Better

- Add a pinch of sea salt to your water
- Have it chilled
- Use flavoured fluids (sports drinks)

Other...

- Test out your fluids during training, not competition
- Do not use gels or sports drinks outside of sports as they contribute to tooth decay and nutrient displacement

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