



EAT TO COMPETE

Fuelling, Hydration and Nutrition

There are 3 major nutritional aims that swimmers need to follow when preparing for a competition.

The Three Aims:

1. To ensure maximum storage of glycogen (carbohydrate)

Failure to do so may lead to fatigue

2. To ensure hydration

Dehydration occurs if fluid losses are not replaced (swimming pools are hot, and swimmers do perspire in water)

3. To maintain a familiar nutrition programme

Always pack an emergency bag of food or check out the food availability at a venue

Fuelling

Carbohydrate is the key fuel for high intensity exercise. Maintaining blood glucose levels during training and competition sustains both physical and cognitive performance and reduces fatigue. Meet your carbohydrate requirement through planning regular meals, especially around key training sessions.

How much do I need?

This depends on the frequency, intensity, duration and type of training or competition.

Preparatory phase training has a greater energy demand than competition prep or competitions themselves as the sessions will be longer with a shorter rest period than if you were competing in several events over the course of a day at a competition.

Rate your sessions from 1 to 10 with 10 being the hardest session and increase your carbohydrate intake with it.

When do I eat?

- 3-4 hours before > carbohydrate, protein and veg. meal
- 60 minutes before > top up with a light snack

Avoid leaving 4-5 hours without a meal. Experiment with timings and foods in training so you can transfer this pattern over to competition.

Hydration

Hydration is the amount of fluid taken in by the human body.

All athletes must drink adequate fluid before, during and after activity to avoid dehydration, which can lead to nausea, dizziness, and fatigue.

2 hours before exercise: drink 0.5 litres of water or a sports drink to help hydrate yourself.

30 minutes before exercise: drink another 0.25 litre to prepare yourself for activity.

During exercise: Always bring a plastic drinks bottle to training as you sweat out fluids and electrolytes.

Moderate to intense training of 30 to 40 minutes requires you to drink 0.25 litres every 20 minutes to help you stay hydrated.

Activity longer than 40 minutes requires a sports drink to replenish electrolytes, so ideally bring a sports drink to all





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After exercise: continue to drink your normal amount of fluid for the rest of the day.

A total of 1.8 litres of fluid is a minimum for swimmers, though more is recommended throughout the day.

A good test of proper hydration is a urine test. Swimmers should pass clear urine, not dark or with a restricted flow.

Recovery

Carbohydrates: Refuelling glycogen (energy) stores **within 30 minutes** of training enables the body to become fitter, stronger, and more powerful.

The carbohydrate content of the recovery snack depends on the workload of the session. For intense preparatory phase session 30-45g carbohydrates may be required, and for lighter sessions, 20-30g carbohydrates.

Protein: High quality proteins help rebuild and model muscle that is broken down during high intensity exercise.

Exercise promotes anabolic (muscle building process so consuming 10-15g protein after pool and 20g after Strength & Conditioning will maximise strength gains.

Leucine promotes optimal training adaptations and can be found in Cow's milk, yoghurt and protein shakes and bars.

Hydration: Aim to replace 1.5 times the amount lost during recovery to rehydrate effectively. You can measure your sweat losses by weighing yourself before and after training. For every 1kg lost you need to drink 1.5 litres to account for urine losses.

Milk is a great recovery as it contains carbohydrates, high quality proteins and rehydrates.

Preparing for Competition

Boost your carbohydrate intake in the days prior to a competition by:

- Reducing the fat and protein component of the meal and add extra carbohydrate
- Choosing a thick base pizza rather than a thin and crispy one but cut down on the fatty toppings
- Drinking extra juice, squash or sports drinks with your meal.
- Adding dried fruit or a sliced banana to breakfast cereal
- Choosing carbohydrate rich, low fat snacks



24 hours before competition:

- Ensure your diet throughout the day is nutritious
- Drink plenty for hydration
- Have a good evening meal focussing on high carbs, low fat – look at the examples below.

*Rice or pasta & low-fat sauce / noodle dish / beans on toast / cereal & toast / jacket potato & low-fat filling
Deep pan pizza with chicken or veg / chunky vegetable or bean based soup and sandwich / large helping of
boiled or mashed potato & small portion of lean meat or fish*

Competition Day Rules:

1. Never try new foods/fluids at a competition, always practice in training first
2. Have a Pre-Competition Meal 3 hours before competition
3. Have a snack 1 hour before competition e.g. Piece of fruit, Cereal/breakfast bar, Dried fruit, Jam/Honey Sandwich
4. Choose familiar, low fibre foods
5. Feel comfortable and confident
6. Remember fluids