



Rowing

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About Rowing

Rowing requires great power and strength, and uses both the aerobic and anaerobic energy systems. Racing is a near-maximal effort lasting between 5.5 to 7 minutes over 2000m depending on the class of boat and the competition level. Classes differ between:

- The number of occupants in the boat (single, double/pair, four/quad, eight)
- The presence of a coxswain steering
- Whether the boat is sculled (two oars per person) or rowed (one oar each)

Rowing is divided by lightweight and heavyweight competition. In the lightweight division, male athletes are not permitted to exceed 72.5kg with a crew average of 70kg. For lightweight females, the maximum individual weight is 59kg with a crew average of 57kg. Nutrition plays a key role in managing the demands of training and competition. Rowing requires long hours of training, with 1 to 2 daily rowing sessions, in addition to gym sessions 3 to 4 times a week to develop strength and endurance. Cross-training sessions such as running, cycling and rowing ergometer sessions are also common.

Competition

Regattas can range from two days of competition, up to one week and heats and finals precede a berth in the finals. In major regattas, rowers may race once or twice in one day and in club regattas rowers may race up to three times per day of competition. Australian regattas are held during the hot summer months, making good hydration practices vital. This presents a further challenge to lightweight rowers who must weigh-in 1-2 hours prior to the first of their races on each day they race.

Training Diet

A high energy and carbohydrate diet is required to support the training and competition demands of rowers and meet body weight, development and strength goals. Male heavyweight rowers in particular (taller and more muscular than their lightweight counterparts), can struggle with the volume of food they need to consume to meet strength and training requirements, especially when training, work and study commitments can interfere with typical snack times. The use of transportable, energy-dense snacks is essential to meet daily requirements without adding too much extra volume and should include food items such as:

- Cereal and muesli bars
- Flavoured yoghurts
- Low fat fruit muffins
- Fruit loaf, bread and English muffins with thick spreads of peanut paste, jam or honey
- Drinks e.g. sports drinks, juice, flavoured milk, liquid meals

These types of snacks are also useful as pre-training snacks before heading to early morning training sessions. Rowers also need to pay attention to recovery nutrition for multiple training sessions over the day (see our fact sheet on [Eating and Drinking During & After Sport](#)).

Lightweight rowers have similar nutritional priorities but these often need to be met simultaneously with weight management. This is a nutritionally-challenging situation that is best managed with the support and experience of a sports dietitian. To seek an accredited sports dietitian, [click here](#) or go to *Find a Sports Dietitian* at www.sportsdietitians.com.

Fluid Needs

Rowers have high fluid requirements. Long training sessions on the water (even in cold weather) lead to significant sweat losses, particularly when undertaken twice a day. In Australia, regattas are mainly held over the warmer months and often involve long hours in the hot sun. Rowers should assess how much fluid they lose during a training session by weighing themselves pre and post training. **For every 1 kilogram lost, 1.5L of fluid needs to be replaced.**

Some practical tips on staying hydrated:

- Rowers should try to begin every training session well hydrated
- Sufficient water bottles are needed and some can be kept in the coaches' boat for top-ups
- The aim is to drink every time there is a break in the training session or alternatively a camel-back can be used: aim for regular sips throughout the session
- During long sessions, hard training cycles or hot weather, sports drinks are the recommended fluid choice as they supply carbohydrate and electrolytes together with fluid.

Sports drinks are suitable fluids during long training sessions (more than 60 minutes) or if training for maximum performance. They are ideal during competition as they provide electrolytes and carbohydrate along with the fluid. Moreover, they can also help to achieve high energy goals (especially in the case of adolescent male or heavyweight rowers' development) and also for strength goals and training needs.

A word on dehydration...

Intentional dehydration to lose weight can be "the norm" for some lightweight rowers desperate to get their weight down before the pre-race weigh-in.

This practice is **dangerous** and if weight targets are an issue, the advice of a sports dietitian should be sought for safe and effective weight loss strategies. Ideally, once the goal weight has been achieved, weight maintenance should be within 2 to 3kg of racing weight during the season.

What should I eat pre-event?

The ideal pre-event meal will provide sufficient fuel and hydration without leaving the rower feeling uncomfortable. Suitable foods are usually low in fat and fibre and high in carbohydrate. Rowers should experiment to find the routines that work best in different situations. For lightweight rowers, a sports dietitian can help to develop an eating plan so that weight targets are met without affecting performance.

Rowers should eat a high-carbohydrate meal 2 to 4 hours prior to competition, and include a drink of water or sports drink. To avoid stomach discomfort (and also to lessen the weight of stomach contents of lightweight rowers) foods low in fibre and fat are preferable. Ensure that the meal is well planned and includes familiar foods and fluids. Examples include:

- Breakfast cereal + low fat milk
- Fruit salad + low fat yoghurt
- English muffin or crumpet with jam/honey
- Sandwich/roll + salad + lean meat/cheese

If pre-event nerves and reduced appetite is a problem, carbohydrate-rich fluids are a good alternative, such as a low fat milk, smoothie or liquid meal replacement e.g. Sustagen® Sport. A small snack such as a muesli bar, fruit or a vegemite sandwich can be eaten about an hour prior to the race as a final effort to top up energy levels.

What should I eat during competition?

The major regattas usually run for two days to a week with rowers often have only one race per day. At the week to week regattas rowers may race in up to three or four events meaning that there is little time for rest and recovery in between. Eating during competition can be difficult, when nerves and a busy schedule can take over! Practising competition eating during training sessions will help to identify food choices that will work best. Examples below:

If **less than 60 minutes between races**: fluids, sports drinks, juices, glucose lollies and fruit are the best options (as they are rapidly digested from the gut)

If **1-2 hours between races**: pasta, rice or noodle-based dishes with low fat sauce/toppings or sandwiches with honey/jam/banana are good choices. Sports bars, cereal bars or low fat muesli bars can be handy also.

If **more than 2 hours between races**: a more substantial meal or meal replacement can be eaten (with plenty of fluids, of course!)

Rowers need to **be prepared** with snacks as regatta courses can be some distance away from shops. An Esky™ packed with plenty of fluids and snacks like cereal bars, fruit and sandwiches can be a handy way of keeping food cool and safe by the water.

What about recovery?

Left to chance, recovery eating may take a back seat to loading the boat trailer, meetings, stretching, watching races or the trip back home or the team hotel.

Handy recovery snacks that can be consumed simultaneously with these activities include sports drinks, liquid meal supplements (e.g. Sustagen® Sport), fruit, sandwiches and cereal bars as quick options. A substantial meal should follow within 2-4 hours of finishing for optimal recovery. This is especially important during a regatta that is held over a few days or during weeks of heavy training.

If celebrating a victory, rowers need to ensure that nutrition recovery goals are met before any drinking starts! If there isn't time for a substantial meal, a snack containing carbohydrate, protein and fluids should be consumed as soon as possible after the event.

Other Nutrition Tips

- Lightweight rowers often face **special challenges** fuelling for training sessions and managing weight targets simultaneously. Specialist advice from a sports dietitian can help to minimise health risks and maximise performance. For tips on making weight, click here to see our fact sheet or go to [Find a Sports Dietitian](#) for individualised advice.
- **Iron levels**: Some rowers may have problems with low iron levels, especially females and/or lightweight rowers with restricted intakes. Iron levels should be checked regularly during heavy training or if fatigue levels are unusual. See our fact sheet on [Iron Deficiency in Athletes](#) and speak to a Sports Dietitian on increasing iron in your diet.
- Although supplements may be tempting to try, it is important to speak to sports dietitian first before taking anything to ensure that it is safe to take.

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