



Sprint Canoe / Kayak

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About the sport

Sprint canoe and kayak is an Olympic sport performed over distances from 200 to 1000m, in individual as well as team boats of two or four. Both canoes and kayaks are raced at the Olympic Games, although currently only men race canoes at the International level. Kayak athletes sit facing forward in the boat and use a double bladed paddle while canoeists kneel and use a single bladed paddle. The International Canoe Federation has recently changed some of its competition events by introducing 200m events, partly to improve the spectator appeal of the sport as the 200m event is currently raced in less than 30 seconds. Australia has achieved several medals at the Olympic level and continues to perform well internationally, particularly in the kayak events.

Training & Competition

Elite sprint canoe and kayak athletes typically train 2-3 times per day, 6 days per week. Training usually involves a combination of on-water, resistance training and cross-training sessions. On-water sessions may include endurance or aerobic training as well as near maximal or race-pace efforts. Both individual and team boat training will be incorporated.

Races last for approximately 30 seconds to two minutes so anaerobic demands are high in racing. Athletes will often have heats, semi-finals and finals for each race they compete in and regattas are usually held over 2-3 days. Sprint athletes will often also compete in long distance Outrigger events and surf-lifesaving in the off-season or as part of their training, so while Sprint Canoe and Kayak is an anaerobic sport, a high level of aerobic training is required.

Training diet

The training diet for a paddler is focused on fuelling for training and recovering appropriately prior to the next training session. Energy requirements tend to be high due to the need to maintain a high level of muscularity and the volume and frequency of training. However, it is often difficult to juggle the energy needs around a busy training, work or study schedule.

The diet should comprise of mostly low GI carbohydrates, with lean protein, low fat dairy and plenty of fruits and vegetables. Ensuring adequate and appropriate nutrition around training sessions is critical for recovery. Eating a carbohydrate-rich, protein-containing snack or meal immediately after training may optimise gains in muscle mass and allow for muscular adaptation to training whilst replenishing glycogen stores for the next training session.

Some snack suggestions include:

- Bowl of cereal with low fat milk and a banana
- Muesli or nut bar
- Smoothie, flavoured milk or meal replacement drink e.g. Sustagen Sport
- Tub of yoghurt with fruit salad
- Sandwich or roll with meat/chicken/fish/cheese or peanut butter
- Creamed rice and a piece of fruit
- Tub of yoghurt or glass of milk and a piece of toast
- A few wholegrain crackers and a can of tuna
- Toast with peanut butter or cheese
- Handful dried fruit and nuts

Fluid needs

Since kayaking is a summer sport, maintaining good hydration practices is extremely important. Water bottles should be taken in the boat for on-water training sessions and small amounts should be consumed regularly during breaks. For example, females can sweat 800-1200ml/hr during high intensity on-water sessions in summer and males can sweat up to 1000-1500ml/hr. Sports drinks are encouraged in combination with water in order to promote more effective rehydration (with electrolytes) and the additional benefit of carbohydrate for improved mental drive. Monitor your urine colour, aiming for a pale “straw” colour most of the day.

What should I eat before competition?

Sprint canoe/kayakers will usually have several races per day, which may be as little as 30 minutes apart or there may be many hours between events. For those with events starting early in the morning, aim for a pre-event meal 2-3 hours before your first race. Your pre-event meal should be high in carbohydrate, low in fat, low to moderate in protein, be liberal in fluid and be familiar foods for the athlete.

Pre-event meal suggestions are:

- Cereal with low-fat milk and a banana
- Pancakes with fruit and syrup
- Smoothie, meal replacement or supplement drink such as Sustagen® Sport
- Toast with jam/honey/vegemite/banana
- Fruit salad with low-fat yoghurt
- Toast with poached/scrambled/boiled eggs
- English muffins with baked beans or low-fat cheese and lean ham

Remember to add fluids to assist with hydration. If your events don't start until later in the day, have a 'usual' breakfast and then top up on carbohydrate based snacks every 2-3 hours leading up to your event.

Some suggestions for portable snacks:

- Fresh/tinned fruit
- Muesli or nut bars
- Trail mix with dried fruit/nuts/seeds
- Sandwich with honey/jam/vegemite/banana
- Milk or juice 'poppers'
- Tub of low-fat yoghurt/custard/creamed rice (make sure you pack a cold brick!)
- Pretzels, popcorn, crackers or rice crackers
- Low-fat fruit muffins
- English muffins/crumpets with jam/honey

What should I eat during competition?

Competitions usually consist of several races (heats, repecharges and finals) over the day; therefore recovery snacks post-race can double as pre-event snacks for the next race.

Foods need to be well tolerated as the intense nature of a race can cause nausea. Paddlers are therefore advised to eat and drink consistently throughout the day rather than have large meals. Popular foods include sports bars, plain muesli bars, rice crackers, sandwiches and fruit, whilst fluids can be a combination of water, juice, and dilute cordial and/or sports drinks.

What about recovery?

Recovery of glycogen stores is achieved by consuming a carbohydrate-rich snack or meal immediately after training or competition. Adding some protein to this meal or snack is also recommended for muscle recovery and any sweat losses should be replaced.

The aim is to 150% of losses; e.g. 2L (2kg body weight) lost = 3L of fluid should be replaced to compensate for further losses (through urine and sweat) post-event or training session.

As paddlers often have an intense training schedule with multiple sessions per day, all meals and snacks after training also provide recovery to top-up prior to the next training session.

Recovery from one-day of competition may also be preparing the paddler for the next day of racing so careful selection of post-event meals and snacks is important. Competition recovery meals and snacks should be carbohydrate-rich, protein containing and should include ample fluids such as water and sports drinks.

Other Nutrition Tips

There is a trend towards leanness in canoe / kayak paddlers however leanness does not always result in good results. Sometimes focussing on reducing body fat levels results in poor training or poor recovery from training, as the high energy demands of training are unable to be met. Often muscular strength and power are more critical than low body fat levels so paddlers are encouraged to focus on fuelling their training effectively, and allow their body composition to alter more naturally as a result of quality training. If body fat levels remain a concern, please see a qualified Sports dietitian.

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