

Guidance for Ramadan

Nutrition and Competition

Ramadan and Performance Nutrition for Athletes

Ramadan is the ninth month of the Islamic Lunar calendar; the observance of Ramadan and its practices is obligatory for all Muslims constituting one of the five pillars of Islam.

During this month Muslims abstain from food and drink between the hours of dawn to sunset. The exempted categories of people not required to fast include those who are children (pre-pubescent), pregnant, menstruating, travellers, and those suffering from illnesses.

Although the physical benefits of fasting are well documented in the modern age the purpose of this holy month is much more than abstaining from food and drink; it is a source of purification for the soul, heart, mind, and egotistical nature of mankind.

“Oh, you who have believed, decreed upon you is fasting as it was decreed upon those before you that you may become righteous” (Al-Baqarah 2:183).

Ramadan is an incredibly important time for all Muslims, it is a time of sincere devotion in terms of prayers and alms giving but equally serves as an opportunity to connect with family, friends, and the wider community especially those who are less fortunate.

Those who fast generally consume two main meals a day. The first being before the dawn prayer (Fajr) known as Suhur and the second, which breaks the fast coinciding with the sunset prayer (Maghrib) called Iftar.

Training schedule considerations

Elite Muslim athletes maintain their usual training during the Ramadan. However, training times may change to the evening, just before the fast is broken after sundown. This allows recovery afterwards with the first meal. For younger aquatic athletes there are some additional challenges during this time:

- Often training is twice a day. With the first session early in the morning it means not eating or drinking until sun-down.
- Athletes have a large energy requirement from food due to their growth and development and their high training volume.
- Usually, young athletes are in full time education, so do not have time to rest during the day on weekdays.

Ramadan will require an alternative nutritional strategy compared to the athlete's usual nutritional approach. This therefore must be reflected in the way that training is structured during Ramadan to ensure that training performance is not compromised and adaptations can be achieved.

Considerations should be given to training volume and the timing of training sessions. For example, during daylight hours more focus could be placed upon technical skills or lower intensity training. Following sunset, breaking the fast allows the athlete the opportunity to consume food and fluid which could then help fuel higher intensity training that follows.

If an athlete is feeling light headed, dizzy or has a mild headache they should speak to their coach straight away to inform them as it is advised that they should stop training until they have been able to break the fast.

Training Nutrition

During Ramadan it is important that the athlete meets their energy demands in order to support their training, development and health. To achieve this nutritional intake across two meals (Suhur and Iftar) is not only challenging, but could also lead to insufficient overall daily intake due to reduced appetite or indigestion, or failure to optimally support performance, recovery and training adaptations.

Athletes should therefore consider integrating two to three smaller snacks (food or fluid) in addition to Suhur and Iftar.

Example training day

Upon Waking – Breakfast: Porridge w/nuts, seeds, fruit juice, yogurt.

Before True Dawn: Smoothie or flavoured milkshake.

After Sunset (Pre-Training): Chicken wrap w/salad, olives, homemade flapjack.

Post-Training Meal: Chicken or fish vegetable curry w/rice, fresh fruit.

Pre-Sleep Snack: Greek yoghurt with berries, honey and granola.

An individualised approach is needed to ensure all macronutrient and micronutrients are integrated within nutritional intake. Distributing this across four to five feedings provides the opportunity to support training preparation and recovery.

Breaking the fast:

After a day of fasting, the traditional foods, and the layout of the Iftar meal support the rehydration and refuelling requirements of everyone. However, there might be some useful additions and considerations below that can be added into Iftar and Suhur meals.

Start Iftar with liquids (juice, milk, tea, smoothie, soup etc.). After fasting, athletes should avoid eating lots of solid food quickly, which will fill them up and slow down gastric emptying. If athletes experience digestive issues this can also have a negative impact on sleep.

Athletes require a high amount of energy from food. This is due to the amount of training undertaken and because they are growing. Due to the challenge of eating a large volume of food in a shorter period, below are some useful foods, which often feature in the Iftar and Suhur meals that can help athletes consume plenty of carbohydrate and energy through energy dense foods. Water is required to help store carbohydrate so consuming them both goes hand in hand.

The range of carbohydrate requirement of different size athlete between a rest day and hard double training day:

50kg Athlete = 200-400g (800-1,600kcal) of Carbohydrates

80kg Athlete = 320g-640g (1,280-2,560kcal) of Carbohydrates

1 Banana = 26g of Carbohydrates

1 Slice of Bread = 14g of Carbohydrates

1 Cup of Cooked Rice = 42g of Carbohydrates

It is very important to consume quality protein portions. The reason for this is protein supports our muscles and bones. If we go for long periods of time in the day not consuming any protein, muscle breakdown can be higher than muscle building and this can compromise recovery, adaptation, and growth. Make sure Iftar and Suhur meals contain good sources of protein. Sources are meat, fish and for vegetarians, eggs, cow and soya milk and yoghurt and for vegans, pulses, nuts, and soya products.

Alternatively, for those that do not consume dairy, opting for another high quality protein source can help meet daily protein intake.

As part of a healthy balanced diet it is important to include healthy fat sources within daily nutritional intake. Common healthy fat examples include: Monounsaturated fats (e.g. avocado, olives, nuts, seeds, extra virgin olive), polyunsaturated fats (fish, walnuts, milled flaxseed) and saturated fats (eggs, dairy and lean sources of red meat).

Athletes should be mindful of the overconsumption of high fat options due to their higher calorie content. Furthermore, consider limiting the consumption of trans fats (e.g. biscuits, cakes, fried foods) due to their lack of nutrient density.

Micronutrients

Important minerals known as electrolytes (sodium, chloride, calcium, magnesium potassium) support the body in retaining water that has been consumed, and they are very important for many functions in the body including muscular contraction. These can be found in foods like dairy, nuts, seeds, and fruit and veg. Salt can also be added to home cooking. One tactic to help with water retention that some Muslims like to do is to consume a lot of salt in the Suhur meal. The risk here is that this can increase thirst and can make the 16-17hrs without fluid more difficult.

When consuming meals/snacks ensure that a range of food options are included, with multiple colours to ensure a variety of vitamins and minerals (e.g. different coloured fruits and vegetables). For example, dark coloured fruits (e.g. blueberries) can aid muscle recovery due to their antioxidant content.

Below is an example of some key micronutrient considerations:

Nutrient	Function	Example Options
Calcium	Bone health, muscle contraction, nerve conduction, blood clotting	Milk, yogurt, Greek yogurt, cheese, sardines, dark green vegetables, fortified products
Iron	Oxygen carrier, immune health, energy production	<i>Haem Iron</i> - red meat <i>Non-Haem Iron</i> - dark green vegetables, nuts, seeds, pulses, legumes
Magnesium	Neuromuscular function, skeletal development, immune health, energy production	Wholegrains, beans, nuts, seeds, bananas, green leafy vegetables
Zinc	Growth and repair, immune health, energy production	Red meat, eggs, poultry, shellfish, spinach, nuts, seeds, beans
Omega-3	Anti-inflammatory, cardiac health, immune health, cognitive function	Oily fish (salmon, mackerel, herring, sardines), milled flaxseed, walnuts
Vitamin D	Bone health, muscle function, immune health	Dairy, oily fish, mushrooms, fortified products

The inclusion of wholegrains, fruits and vegetables will also provide sources of fibre within the diet which is important for digestive health.

Competition Considerations

Ramadan falls in the competitive part of the season. The following are some tips for competing whilst fasting.

In Swimming: Unlike training, most races are maximal effort but much shorter in duration. Therefore, we don't need to aggressively refuel with carbohydrates after each individual race. If the athlete fuelled with carbohydrates and hydrated with fluids during the night before competing, performance won't be greatly compromised.

In Water Polo: With a playing time of 32 minutes for a match, normally an athlete would be encouraged to refuel in-between games, however carbohydrate stores won't be completely depleted after a match so athletes should prepare well for a day of competition the same as swimming above.

Competing for multiple days requires the same considerations as above to ensure athletes can rehydrate and refuel ready for the next day but also allow time to sleep.

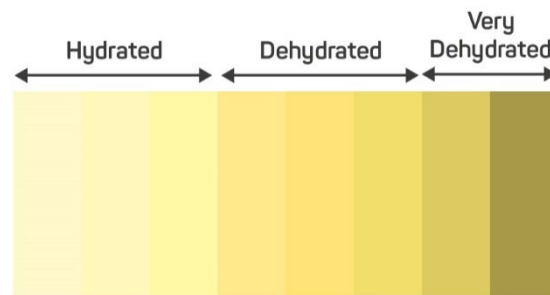
If the competition falls in the first few days of Ramadan, it might be of benefit for an athlete to alter their routine around sleep, eating and drinking a few days early to the start of fasting. This will give you a few extras days to get use to the new routine and will hopefully have less impact on racing. The changing routine could be to eat later in the evening and before sunrise but no fasting in the day until Ramadan begins

Avoid spending any unnecessary time poolside or in the building where possible. Air conditioning can dry out an athlete's nasal passages and they should limit the amount of dehydration during the day when they cannot drink.

When it comes to snack or meal time around competition, it is also important to stick to food options that the athlete is familiar with and tolerates well. Avoid spicy foods around competition to minimise the risk of any negative gastrointestinal issues.

Hydration

Impaired hydration has a negative impact upon performance. It is therefore important that athletes commence training and competition in a hydrated state. An approximate guide to hydration can be made by simply monitoring urine colour when inactive - a pale straw colour urine approximately indicates a hydrated state.



To support rehydration after sundown, aim to drink at least 2L of fluids (water, squash, milk, juice, tea), sipped over the non-fasting period. The athlete could keep a large bottle of water or squash with them during the hours of dark so fluids are always accessible – it will remind them to keep sipping fluids. The athlete should avoid any caffeine to help maximise sleep duration and quality during the night.

If training after sunset, the athlete should hydrate prior to training and then consume fluid during, and rehydrate following training. For those who feel that they may benefit from carbohydrate intra-training to help maintain training intensity, then they may wish to consider a carbohydrate sports drink.

Athletes should ensure they are replenishing not only fluid, but also electrolyte losses. This can be achieved by seasoning food, adding minerals to a soft drink or via a carbohydrate sports drink which must be informed sport tested.

Avoid rapid fluid consumption, as this can impair rehydration by increasing urine losses. Steadily consume fluid across a period of time to optimise rehydration. Rapid consumption of fluid close to sleep may cause waking up in the night to use the bathroom, which would negatively impact upon sleep.

Sleep

It is not just nutrition that should be considered when it comes to athlete preparation and recovery. During Ramadan an individual's sleep routine may be altered, due to eating later in the evening. This may result in less total sleep or impact upon sleep quality. Coaches should consider this when designing training programmes. The integration of short naps during the day, especially during competitive periods, may help the athlete increase total sleep and aid recovery.



Further Resources

Looking for some recipe inspiration?

Below are some simple and tasty options to help fuel training and competition:

English Institute of Sport: eis2win.co.uk/resources/nutrition-hub/

Swim England: swimming.org/members/tag/healthy-eating-recipes/

British Swimming: britishswimming.org/members-resources/health-hub/fuel-my-fridays/

Useful Foods and Drinks during Ramadan:

Foods:

Breads, Potato, Rice and Couscous* – Great sources of carbohydrates and these need to make up most of the plate to help refuel and maximise stores for the next day.

Dried Fruits* – Dates, apricots, figs, raisins are sources of quickly absorbing carbohydrates to help refuel. Soft dates go really well in smoothies.

Nuts and Nut Butters – Energy dense sources of healthy fats. Great to add to smoothies and a topping for toast or rice cakes.

Full Fat Yoghurts – Yoghurt is a source of protein with some carbohydrates and fat. Opt for a full fat yoghurt for more calories.

Cheese – An energy dense food, it has a little bit of protein in but most of the energy comes from fat.

Kellaj and Other Ramadan Sweets* – Although these aren't nutrient dense, they will help athletes consume a high amount of much needed carbohydrate.

Fluids:

Liquids are a great way of getting in lots of calories that are consumed, emptied out of the stomach and digested quickly. Adding honey and nut butters to smoothies and swapping milks for full fat versions will allow athletes to increase the energy intake.

Smoothies* – That are milk based. A great energy dense smoothie is milk, peanut butter, honey, chocolate powder and banana whizzed up!

Chocolate Cow or Soy Milk* – Energy dense source of carbohydrates, protein and key nutrients for growing and rehydration.

Full Fat Milk – a 200ml glass of full fat milk has more calories (40kcal) than semi-skimmed milk but the same amount of protein and carbohydrate. Every little helps.

Fruit Juice* – Apple, Orange etc. a 200-300ml glass can easily be drunk quickly before eating and a good swap if athletes are not feeling like drinking water at this time.

Homemade Sports Drink – Water with a large dash of fruit juice and a pinch of salt mixed up. This will help retain the water drank better and support hydration.

*significant sources of carbohydrate

Top five nutrition tips:



01

Keep a large bottle of water or squash with you from Iftar to Suhur. Make it is by the side of the bed when you are sleeping and aim for at least 2L sipped over the non-fasting period.



02

Try to avoid caffeine until Suhur as this can have a negative impact on the quality and duration of your sleep.



03

During a competition avoid any unnecessary periods of time poolside, the building's air-conditioning and ventilation system causes dehydration.



04

Check the useful food and drinks list in this article for after dark, particularly for those growing athletes who need to consume a high amount of energy in a shorter period.



05

To avoid getting too full quickly at Iftar, start the breaking of your fast with liquids (water, fruit juice, smoothies, soup etc.).

