

7. NOURISHING YOUR BODY



NUTRITION FOR 100K WILD WOMEN ON TOP SYDNEY COASTREK

- For best results in a 100k endurance trek, training is paramount. Good nutrition can improve performance but is not a substitute for appropriate Trek Training.
- You need to listen to your own body and do what works for you. Try different things in training and if you've learned in training that you can't eat much, then don't force food in. Eat little bits often as you walk
- The biggest change in your schedule during the week before your event should be in your training, not in your food. Don't be tempted to do any last-minute long sessions! You need to taper your training so that your muscles have adequate time to become fully fuelled (and healed.) Allow at least two rest days pre-event.
- You don't need to eat lots more calories in the week before the event. You simply need to exercise less. This way, the 600 to 1,000 calories you generally expend during training can be used to fuel your muscles.
- Lots of the normal rules about healthy eating go out the window during such long events because you need easily absorbed low fibre carbohydrates to provide quick energy for working muscles AND some protein.
- Avoid Nurophen or Nurophen Plus for minor aches and pains during the event. When it hits an empty stomach, it brings nausea which will often prevent you from continuing.

Following is a brief summary of the current

thinking from sports nutritionists.

Put simply, when you start walking you're relying mainly on the glucose in your blood for energy. As you go on exercising your body maintains blood glucose by breaking down fat and breaking down glycogen, which is the way you store some glucose.

When you get really low on glycogen you can 'hit the wall'. You might feel weak, nauseas, and fuzzy in the head because your brain relies on glucose for energy. If you're not eating and drinking enough, you might also get increased blood acidity (acidosis) from the increase in lactic acid and/or protein breakdown. This is really serious and must be avoided. If you can see a team member starting to get confused and disoriented, stop, eat and rest as soon as possible. You can't continue through this stage - you need to rest and take care of each other.

Nutritional strategies to maintain energy levels:

- Carbohydrate loading is a technique to increase the carbohydrate stored as glycogen. For 2-3 days before the event, you need to taper your exercise, and eat high carbohydrate foods. We recommend you eat 7-12 g of carbohydrates per kilo of body weight per day. If you weigh 60 kg that's about 600 g of carbohydrates per day.

Here's what 30g of Carbohydrate looks like:

- A half serve of pasta
- 2 teaspoons of jam
- 2 slices of bread
- 3 rice cakes
- 2 med pieces fruit or
- 1 large banana
- 45 gm dried fruit
- 500ml sports drink
- 300ml cordial
- 40gm jelly beans
- 50gm chocolate
- 1 small muffin, scone, cake
- 1 carbohydrate gel -150ml

The carbohydrates you need are low fibre, low fat. Good examples include compact high carb foods like sugars, soft drink, sports drinks, jams, pasta, rice and potatoes. It can

be hard to eat the increased carbohydrates – some people manage best with muffins, crumpets, Baker’s Delight finger buns. Consuming high fat foods, ie chocolate, fried foods, etc will not assist your nutritional preparation and you will gain fat (and you don’t want to be carrying that for 100km!). So, resist the temptation to indulge in high fat foods.

Pre Event Food:

In theory you should eat lots of carbohydrates several hours before the event but this can be difficult with an early morning start. For best results eat high carbohydrate, low fibre food such as white bread jam sandwiches, crumpets or muffins an hour or two before you start.



During the event:

Remember, trekking 50 – 100k in 18 – 36 hours is not the time to focus on gourmet cuisine. Rather, you should think of your body as a very active machine and ensure that you top it up with small nutritional mouthfuls often. Getting your nutrition right during the event will greatly improve your chances of success. The AIS recommends 30-60 g of carbohydrates per hour during endurance events for maximum performance.

Here’s what 50g of Carbohydrates look like:

- 800-1000 ml sports drink
- 2 carbohydrate gels – GU, etc
- 2 bananas
- 1-2 cereal bars (these vary widely- check the labels on your preferred ones)
- 800 ml cordial
- 500 ml juice
- 50 g jellybeans or jelly lollies – that’s 2 jelly snakes,
- 1 jam sandwich

Experiment in training and eat what you’re comfortable with but make sure you average at least 30 gm of carbohydrate an hour, depending on how fast you’re travelling. If you’re jogging the distance, your energy requirements will be different from if you’re strolling.

Energy Gels:

- Energy gels are great for some people but be careful with them – the serving size is for 70 kg males and in some people they can trigger diarrhea by drawing water into the gut. You may not need them if you can manage to eat small quantities of food often, but experiment with them in training for best results and ensure you drink every time you use them.
- Try leaving them till the last third of the event and have small mouthfuls out of the brands in tubes such as Peak Fuel. Again, the reaction to gels is really personal so do what you know works from your own experience.

Hydration

- It is very important to drink water or diluted sports drinks regularly. Most people prefer bladders or Camelbaks because they are convenient and easy to sip from continually.
- If you’re not urinating or your urine is bright yellow, you’re dehydrated.
- If your urine is completely clear, you might be drinking too much.

Electrolytes

- Your body loses electrolytes from sweating so it’s important to replenish these, particularly if it’s a hot day.
- Gastrolyte fizzy tablets (120mg sodium chloride) dissolved in water also work really well for some trekkers (Note: Sports Gu & Gels have nearly no sodium, and Gatorade is mostly sugar.)
- Sodium is the most important electrolyte, so it’s recommended to have something salty – salted nuts, pretzels, vita wheat biscuits, whatever you can stomach.
- Soup as the main meal is great way to get some salt, as well as fluid, carbs and protein.
- If you can’t eat any food, sports nutritionists recommend electrolyte

drinks such as Gastrolyte. There is some anecdotal, but unproven, evidence suggesting they can trigger muscle cramps or diarrhea in some people. Try them beforehand in training if you think you may need them.

- Salt Tablets (600mg of sodium chloride) can also assist. One per 10-15 km is recommended but consult your pharmacist and try in training.



- Begin drinking early- remind each other often and start drinking well before you get thirsty.

These notes are intended for fit healthy trekkers. If you have diabetes, or have impaired glucose tolerance, you need to seek medical advice.

Caffeine

- Caffeine has been proven to help with muscle fatigue as well as general blariness but in some people it can cause upset stomachs.
- If you're planning to walk through the night, you might want some kind of caffeine product such as coffee, Red Bull, V, or Mother.
- Once again, try these products in training and read the labels because they can be very strong and you could have a bad reaction on an empty stomach.

Team Care:

- Keep an eye on your teammates and make sure everyone is eating.
- If you notice someone isn't eating, or is struggling, start talking to them early- push them a little to eat, even if they resist. Have some snakes or jelly beans handy just in case.
- A timely Mother, Coke or Red Bull, coaxed down a reluctant-to-drink, nauseous, flagging trekker has been known to save the day.

Carbo-loading: Tips for endurance athletes
By Nancy Clark, MS, RD, CSSD
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Does carbo-loading mean stuffing myself with pasta?

Should I avoid protein the day before the marathon?

Will carbo-loading make me fat...?

If you are an endurance athlete who is fearful of "hitting the wall," listen up: proper fuelling before your marathon, triathlon, century bike ride or other competitive endurance events can make the difference between agony and ecstasy!

If you plan to compete for longer than 90 minutes, you want to maximize the amount of glycogen stored in your muscles because poorly fuelled muscles are associated with needless fatigue. The more glycogen, the more endurance (potentially).

While the typical athlete has about 80 to 120 mmol glycogen/kg muscle, a carbo-loaded athlete can have about 200 mmol. This is enough to improve endurance by about two to three percent, to say nothing of making the event more enjoyable.

While carbo-loading sounds simple (just stuff yourself with pasta, right?) the truth is many endurance athletes make food mistakes that hurt their performance. The last thing you want after having trained for months is to ruin your performance with poor nutrition, so carbo-load correctly!

Training tactics

The biggest change in your schedule during the week before your event should be in your training, not in your food. Don't be tempted to do any last-minute long sessions! You need to taper your training so that your muscles have adequate time to become fully fuelled (and healed.) Allow at least two easy or rest days pre-event.

Fueling tactics

You need not eat hundreds more calories this week. You simply need to exercise less. This way, the 600 to 1,000 calories you generally expend during training can be used to fuel your muscles.

All during this week, you should maintain your tried-and-true high-carbohydrate training diet. Drastic changes can easily lead to upset stomachs, diarrhoea or constipation. For example, carbo-loading on an unusually high

amount of fruits and juices might cause diarrhoea. Too many white flour, low fiber bagels, breads and pasta might clog your system. As Marathon King Bill Rodgers once said "More marathons are won or lost in the porta-toilets than they are at the marathon..." Fuel wisely, not like a chow hound.

Be sure that you carbo-load, not fat-load.

Some athletes eat gobs of butter on a dinner roll, big dollops of sour cream on a potato and enough dressing to drown a salad. These fatty foods fill both the stomach and fat cells, but leave muscles poorly fuelled. The better bet is to trade the fats for extra carbohydrates. That is: instead of devouring one roll with butter for 200 calories, have two plain rolls for 200 calories. Enjoy pasta with tomato sauce rather than oil or cheese toppings. Choose low-fat frozen yogurt, not gourmet ice cream.

Meal timing

NYC Marathon Queen Grete Waitz once said she never ate a very big meal the night before a marathon, as it usually would give her trouble the next day. She preferred to eat a bigger lunch. You, too, might find that pattern works well for your intestinal tract. That is, instead of relying upon a huge pasta dinner the night before the event, you might want to enjoy a substantial carb-fest at breakfast or lunch. This earlier meal allows plenty of time for the food to move through your system.

You can also carbo-load two days before if you will be too nervous to eat much the day before the event. (The glycogen stays in your muscles until you exercise.) Then graze on crackers, chicken noodle soup, and other easily tolerated foods the day before your competition.

You'll be better off eating a little bit too much than too little the day before the event, but don't overstuff yourself. Learning the right balance takes practice. Hence, each long training session leading up to the endurance event offers the opportunity to learn which food -- and how much of it -- to eat. I repeat: During training, be sure to practice your pre-event carbo-loading meal so you'll have no surprises on the day of the event!

Weight gain

Athletes who have properly carbo-loaded should gain about one to three pounds -- but don't panic! This weight gain is good; it reflects water weight and indicates you have

done a good job of fuelling your muscles. For every ounce of carb stored in your body, you store almost three ounces water.

Fluids

Be sure to drink extra water, juices, and even lemonade, if desired. Abstain from too much wine, beer, and alcoholic beverages; they are not only poor sources of carbs, but are also dehydrating. Drink enough alcohol-free beverages to produce a significant volume of urine every two to four hours. The urine should be pale yellow. Don't bother to over hydrate; your body is like a sponge and can absorb just so much fluid.

Protein

Many endurance athletes eat only carbs and totally avoid protein-rich foods the days before their event. Bad idea. Your body needs protein on a daily basis. Hence, you can and should eat a small serving of low-fat proteins such as poached eggs, yogurt, turkey or chicken as the accompaniment to most meals (not the main focus), or plant proteins, such as beans and lentils (as tolerated).

Event day

Carb-loading is just part of the fuelling plan. What you eat on the day of the event is critically important and helps to spare your limited muscle glycogen stores. So fuel yourself wisely both before and during the event -- and hopefully you will enjoy miles of smiles!

Tools for carbo-loading

When carbo-loading, you want to consume about three to five grams carbohydrates per pound of body weight. (This comes to a diet with about 60% of calories from carbohydrates.) Divide your target grams of carbohydrates into three parts of the day (breakfast+snack; lunch+snack; dinner+snack), and choose foods to hit your target! You can find carbohydrate info on food labels and www.fitday.com

Sample 50 gram carbohydrate choices for the foundation of a meal or snack

Wheaties, 2 cups

Nature Valley Granola Bar, 2 packets (4 bars)

Banana, 2 medium

Orange juice, 16 ounces

Apple, 2 medium

Raisins, 1/2 cup

multi-grain bread, 2.5 slices

Baked potato, 1 large (6.5 ounces)

Pasta, 1 cup cooked

Rice, 1 cup cooked

Fig Newtons, 5

Flavored Yogurt + 3 graham cracker squares

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