What are the best fuels for exercise?

Carbohydrate (carbs) and fat are the two main fuels for exercising muscles. Protein is needed for muscle growth and repair. Your body stores carbohydrate in the liver and muscles as glycogen. The body only stores small amounts of carbohydrate so these stores need to be topped up on a daily basis after every training session. It is vitally important that we commence our runs with full tanks of muscle and liver glycogen. Therefore, following a high carbohydrate (60-70% of your daily intake) and a low fat, moderate protein intake is very important in the coming weeks.

When we are training on a daily basis and doing longer runs, if we do not have enough glycogen stored in our liver and muscles we can run out of fuel and energy. As a result we may find that we can suffer with heavy tired muscles, fatigue and poor performance.

What should I eat after exercise?

The best way to restore your muscle glycogen levels after exercise is to eat within 30 minutes of completing a training session, a snack that is high in carbohydrate and contains a small amount of protein. Here are some examples:

- Ham, tuna or turkey sandwich with an isotonic sports drink or water
- Low-fat milk with a banana
- Low fat yoghurt and a cereal bar
- Fruit smoothie and a bowl of cereal
- Low-fat yoghurt, granola and a banana
- Whey protein and carbohydrate shake

How to increase your carbohydrate intake base meals and snacks on the following high carbohydrate base foods

- Breakfast cereal with low-fat milk, honey and fruit
- Use thicker slices of bread, pitta bread, bagels, oatcakes
- Choose deep pan rather than thin based pizzas
- Add potato/pasta to soups and salads
- Eat sweet potato, root vegetables, sweetcorn
- Eat boiled/mashed/baked potatoes instead of chipped or roasted
- Try boiled rice/pasta with stews and curries for variety
- Add fresh or dried fruit to breakfast cereals and desserts
- Make your own “high carbohydrate” smoothies with fresh or tinned fruit, low-fat yoghurt and honey or sugar
- Beans (e.g. kidney, butter) peas, lentils
- Fruit – fresh, dried, stewed, tinned
- Low fat yoghurt, cereal bars, popcorn
- Low fat creamed rice with dried fruit

What should I drink?

It is also very important to drink lots of fluids before, during and after training. Don’t wait until you feel thirsty, because thirst is a sign that your body has needed fluids for a while.

Water is the best choice of fluid in replacing lost fluids. Isotonic sports drinks are effective at fluid replacement during and after long intense sessions, but may not be required daily. These drinks will become more important as your training intensifies. Tooth hygiene is important when consuming glucose drinks on a regular basis.

Practice all fluid strategies during training, including types of fluids, well before race day. If you want to check that you are getting enough fluids, just check your urine: it should always be yellow in the morning and throughout the day it should become clear. If the urine intake is not clear during the day, it means that you are not drinking enough water and you are dehydrated. Dehydration leads to reduced performance.

Ideally, drink 300mls to 600mls of water prior to exercise. During exercise, the general recommendation is to drink approximately 150mls of fluid every fifteen minutes. If you are participating in the half marathon, relay or the full marathon, isotonic drinks such as Club Energise, Gatorade, Lucozade Sport or Powerade may help to rehydrate you and provide glucose to fuel your run.
Daily Eating Plan

Take a look at this sample meal plan for a sportsperson participating in the half marathon or full marathon and adapt it to suit you.

Breakfast:
- Fresh fruit or fruit juice
- Large bowl Wholegrain cereal/low fat/skimmed milk and sugar (if desired)
- White or Wholemeal bread and low fat spread, jam/honey or marmalade
- Tea of coffee/low fat milk and sugar (if desired)

Mid-Morning:
- Tea, coffee, water or mineral
- Fresh fruit or wholemeal biscuits/scones or bread/rolls with low fat spread and jam/honey or marmalade

Dinner/Main Meal:
- Average serving of lean meat, poultry or fish
- Vegetable - large helping
- Large helping of potatoes (not fried) or rice or pasta
- Fruit fresh, tinned or stewed, fruit crumble, milk pudding, low fat yoghurt, fruit cake, scones or jelly

Afternoon:
- Tea, coffee, water or mineral
- Fresh fruit or wholemeal biscuit or scone or bread/rolls with low fat filling

Lunch/Evening Meal:
- Average serving of lean meat, fish, egg, low fat cheese or combined dish like pizza (care with topping), omelette or beans on toast
- White or wholemeal bread and low fat spread or pasta or rice or potatoes
- Salad or vegetables or fruit

Bedtime:
- Tea, coffee, water or mineral
- Wholegrain biscuit or wholemeal sandwich or fruit
- Try cereal such as weetabix, shredded wheat, cornflakes or muesli with low fat milk

Race Day Plan

PRACTICE, PRACTICE all food and fluid strategies in training before race day to ensure you complete the run in target time.

3-5 days prior to the event, follow a very high carbohydrate, low fat, moderate protein diet. Taper your training and avoid alcohol and large amounts of tea and coffee. Increase fluid intake to ensure hydration. On the evening before the race eat high carbohydrate snacks.

On race day never try anything new, have a high carbohydrate breakfast 2-3 hours before the run such as large bowl of cereal with low fat milk add dried fruit, 2-4 slices of bread/toast with jam, marmalade or honey, banana or fruit, juice or smoothie.

How to finish the race

Drink water regularly and/or an isotonic drink to prevent fatigue and ensure sufficient energy to complete the race. Eat high carbohydrate snacks such as bananas, cereal bars, dried fruit and chocolate bars. For those completing the full marathon it's essential to eat and drink carbohydrates every 15 minutes. It is also vital to take a large amount of carbohydrate about 60 minutes before the end of the race as this can delay fatigue. Don't leave it too late to take this. Slow down and take 500 mls of isotonic drink and a large amount of carbohydrate such as a carbohydrate gel, 1.5 bananas or 1.5 cereal bars or a bar of chocolate. This will help delay fatigue at that crunch moment and give you enough energy to cross the finish line.

Well done for completing your training and taking part in this great event.

The very best of luck on the run.
Elaine McGowan, Sports Nutritionist / Dietitian
Suite 18 Hermitage Medical Clinic
Tel: 01 6459617  Fax: 01 6459235
www.emgdc.ie

www.hermitageclinic.ie