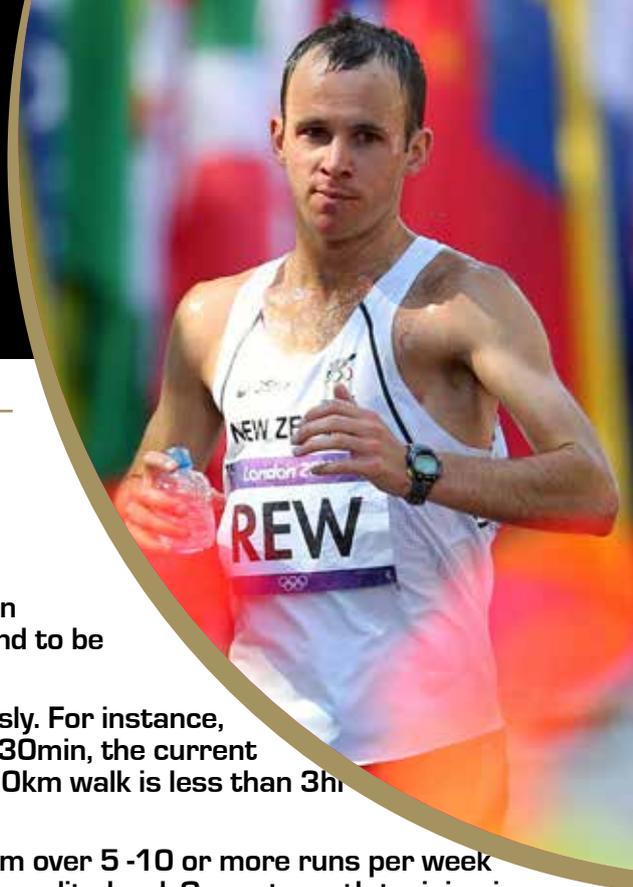


DISTANCE RUNNING AND WALKING

EATING FOR YOUR SPORT



Your sport:

Distance running and walking encompass events that range in length from 10km to 50km and over. These events are enjoyed by millions of people worldwide for both fitness and competition. As these endurance events require the athlete to carry their own bodyweight over a long distance, most elite distance athletes tend to be lean with lower body fat levels.

The time it takes to complete endurance events varies enormously. For instance, whilst the average time for a marathon (42.2km) is around 4hr 30min, the current world record is around 2hr 2min, and the world record for the 50km walk is less than 3hr 40min.

Training for a distance event usually involves covering 40–160km over 5–10 or more runs per week depending on whether the athlete is involved at the recreational or elite level. Core strength training is also often included a few times a week.

At the elite level, in distance running and walking, the body relies predominately on glycogen as a source of fuel. Glycogen is the carbohydrate which is stored in the muscles and liver. For events lasting for several hours, athletes use a combination of carbohydrate and fat as fuels given that extreme endurance events are lower intensity but longer in duration.

This nutrition advice sheet is aimed in those who train and compete at a recreational level, as elite athletes have different nutritional requirements and will require individualised advice.

TRAINING DIET:

Endurance athletes, distance runners and walkers benefit from basing their meals and snacks around carbohydrate rich foods. Carbohydrate provides fuel for training. Endurance athletes, distance runners and walkers benefit from basing their meals and snacks around carbohydrate rich foods.

Carbohydrate provides fuel for training and helps replenish carbohydrate stores which are likely to have been depleted during training and provide B

vitamins essential in energy production pathways.* Protein rich foods and healthy fats are also essential as they play an important role in muscle repair, maintaining energy requirements, maintaining blood sugar, and boosting immune function.

CARBOHYDRATE

Carbohydrate rich foods provide fuel for training. The longer the training session, the more carbohydrate will be required.* Basing meals and snacks on healthy carbohydrate rich foods is ideal.

This includes oats, grainy breads and crackers, pasta, rice, low fat noodles and starchy vegetables like potato and kumara. Including plenty of fruit and vegetables in meals and snacks is also important, not only because they are great sources of carbohydrate, but also because they are rich in vitamins, minerals and antioxidants.

If you are regularly training intensely for over 60 minutes or training at a



moderate intensity sessions over 150 minutes you may require additional carbohydrate during your training at a rate of between 30-60g carbohydrate/hour.* This additional carbohydrate may be sports drinks, gels, jelly lollies and if and when appropriate (depending on the type of training) solid food such as low fat cereal bars and dried fruit.

For optimal muscle recovery from training sessions it is ideal to include a carbohydrate and protein rich snack if the next meal is not for a while. Liquid breakfast drinks, fruit and yoghurt smoothies and creamed rice are a few ideas.

PROTEIN

Protein based foods such as low fat dairy products, lean cuts of red meat and poultry, fish/seafood, eggs, nuts and tofu, are also important components of a healthy balanced diet. Including a serving of protein at each meal is ideal and having a small amount of protein after training is also important to help with recovery.** Low fat yoghurt and fresh fruit, sandwiches with a lean meat/fish/egg filling or a smoothie made with low fat milk or MILO with low fat milk are popular recovery choices after a training session.



FAT

For general health and wellbeing, it is important to include moderate amounts of healthy fats each day. This includes nuts, seeds, avocado, vegetable oils (such as canola or olive) and oily fish like salmon and sardines. These healthy fats can be a useful source of extra kilojoules when energy needs are high, as well as providing essential vitamins, minerals and fatty acids. Unhealthy fats such as the white fat on meat, chicken skin, butter and the fats commonly used in biscuits, cakes and pastry items are best kept to a minimum.

HYDRATION

It is important for runners and walkers to be adequately hydrated before, during and after training sessions. In most cases, water is adequate for sessions lasting up to 60-90 minutes, and sports drinks can be useful to meet both carbohydrate and fluid requirements of longer or more intense sessions.***

If you have a very heavy training load, you may find that it can be difficult to meet energy (kJ) needs. Having fruit juice, low fat milk or sports drink may be helpful to ensure you recovery properly after training as well as providing additional energy at the same time. If you struggle to manage your weight, speak to a sports dietitian or accredited sports nutritionist for more information.

SAMPLE 1-DAY MEAL PLAN FOR A DISTANCE ATHLETE

PRE TRAINING SNACK:

- Slice of bread with jam/honey OR
- Banana and a glass of fruit juice

DURING/AFTER TRAINING

- Water; include carbohydrate gel/ fluid if longer than 60-90 minutes

POST-TRAINING RECOVERY:

- Carbohydrate and electrolyte fluid i.e. sports drink may be required

BREAKFAST:

- Natural muesli with fresh fruit and low fat yoghurt/low fat milk OR
- Wholegrain toast with marmite/peanut butter and a low fat yoghurt

MORNING TEA:

- Dried fruit and raw nuts OR
- Wholegrain crackers with cottage cheese and tomato OR
- Low fat yoghurt and fresh fruit

LUNCH:

- Wholegrain bread rolls or wrap filled with hummus, lean meat/canned fish and salad ingredients OR
- Sushi - Add a piece of fruit and/or low fat yoghurt

AFTERNOON TEA:

- Fruit toast OR
- Low-fat smoothie or MILO OR
- Cereal bar

DINNER:

- Lean meat/fish/vegetarian sausages with salad or steamed veges served with rice/pasta OR
- Baked kumara topped with cottage cheese and bean salad with salad vegetables OR
- Wood-fired pizza with vegetable toppings and salad

NUTRITIONIST'S NOTE

This meal plan is a general example only. It should be altered to suit individual energy requirements depending on age, gender and training load. For those who train at an elite level and/ or twice or more a day additional pre training snacks and post training recovery food/drinks will be required. Contact a Sports Dietitian or Accredited Sports Nutritionist for guidance.

NUTRITION PROFILE: QUENTIN REW

Why do you think nutrition is important for your sport?

Proper nutrition is the foundation on which training, recovery and performance are built. Your body can only give 100% if it has the right fuel.

What are some healthy and tasty foods you recommend?

I love simple, natural foods like fruit, vegetables, cereal, pasta, rice and meat. Variety is the spice of life and the cornerstone of health.



KEY FOODS FOR A DISTANCE ATHLETE'S PANTRY

- ✓ Wholegrain breakfast cereals, muesli, rolled oats
- ✓ Rice, pasta and low fat noodles (such as udon, hokkien or MAGGI baked noodles)
- ✓ Wholegrain bread, pita bread
- ✓ Pizza bases
- ✓ Wholegrain crackers
- ✓ Dried, frozen and tinned fruit
- ✓ Canned salmon and tuna
- ✓ Canned tomatoes
- ✓ Canned beans (chickpeas, four bean mix, kidney beans)
- ✓ Creamed rice
- ✓ CARNATION Light & Creamy Evaporated Milk
- ✓ MILO Energy Food Drink
- ✓ Cereal or low fat muesli bars
- ✓ Nuts and seeds
- ✓ Peanut butter, jam or honey
- ✓ Herbs and Spices

KEY FOODS FOR A DISTANCE ATHLETE'S FRIDGE/FREEZER

- ✓ Fresh and frozen fruit and vegetables
- ✓ Low fat yoghurt
- ✓ Low fat milk (green and yellow top)
- ✓ Cottage & Edam cheese
- ✓ Hummus
- ✓ Lean meat, chicken, fish
- ✓ Reduced Fat Spread



COMPETITION DAY EATING

Many long distance running and walking events take place in the morning, so a breakfast high in carbohydrate is essential to top up carbohydrate stores prior to the start.

Some runners/walkers set their alarm clock early to eat their pre event meal 2-3 hours before the race. At this time, some ideal options would be hot oats with banana and honey; spaghetti or baked beans on toast or pancakes with maple syrup, low fat yogurt and fruit. Go easy on fibre on race day.

For those who eat less than an hour before racing, lighter options are more suitable and include things like honey/jam sandwiches, high carbohydrate sports bars, liquid meals/smoothies or muesli/cereal bars. If you do opt for a lighter meal/snack before a competition, be sure to allow at least 30-60 minutes between eating and racing to allow your body to digest the food you have just eaten. These lighter snack options also make good choices for topping up on carbohydrate stores

after breakfast, if an event is closer to midday.

It is vital to work out what options and combinations of foods/drinks work for you before you come to the day of an event - practice on training days.

Remember to have something to drink with your breakfast. Fruit juice, flavoured milk or a sport drink maybe helpful to maximise your carbohydrate intake at that time as well as ensuring you are well hydrated. To work out exactly how much you need and at what time, seek individual guidance and be sure to practice any strategies before you use them on the day of competition. If you're running/walking event starts later in the day, make sure you have something to drink with all your meals and snacks though out the day, and carry a drink bottle around with you to ensure you stay well hydrated.

SPECIAL ISSUES AND REQUIREMENTS FOR DISTANCE RUNNING AND WALKING

- **Low iron** – Endurance athletes are at an increased risk of depleted iron stores which may result in additional fatigue and impaired performance. Include iron rich foods such as lean red

meat and fortified breakfast cereals daily to optimise your iron levels. If you are vegetarian, include foods that are high in vitamin C (such as orange juice, kiwifruit, broccoli, berries) at the same time as having eggs/pulses/tofu as this will enhance the absorption of iron from these foods. For more information, see the nutrition advice sheets on 'Iron and Sport' and 'Managing a Vegetarian Diet'.

- **Weight management** – The risk of illness and injury is increased when athletes overly restrict their energy intake, in an effort to reduce body fat levels. Be sure to aim for a healthy balanced diet - avoid rapid weight loss.

- **Overhydration** – as runners/walkers you can be at risk of overhydrating if you drink too much fluid and have an inadequate amount of sodium. Using sports drinks which contain sodium can be helpful. See Nutrition advice sheet on 'Hydration' for more information.

*Louise Burke et al, 2011. Carbohydrates for training and competition, Journal of Sports Sciences

**Stuart M Phillips et al. (2011). Dietary protein for athletes: From requirements to optimum adaptation. Journal of Sport Sciences, 29(51): S29-S38

***Nutrition for Athletes 2012. A practical guide for health and performance. Water and salt needs for training, competition and recovery. Pg 22. International Olympic Committee

KUMARA AND SMOKED CHICKEN SALAD

Serves 4

2 large kumara, peeled and cut into large chunks
1 qty Wholegrain Dressing
300g smoked chicken, skin removed
130g mixed salad leaves
1 cup basil leaves, torn
1 small cucumber, sliced

- Preheat oven to 200°C.
- Toss the chunks of kumara in half the Wholegrain Dressing.
- Place the kumara chunks on a baking tray lined with baking paper and cook for 20 minutes until soft to touch.
- Slice the smoked chicken. Toss chicken, kumara, salad leaves, basil and cucumber in a large bowl with the remaining dressing before serving.

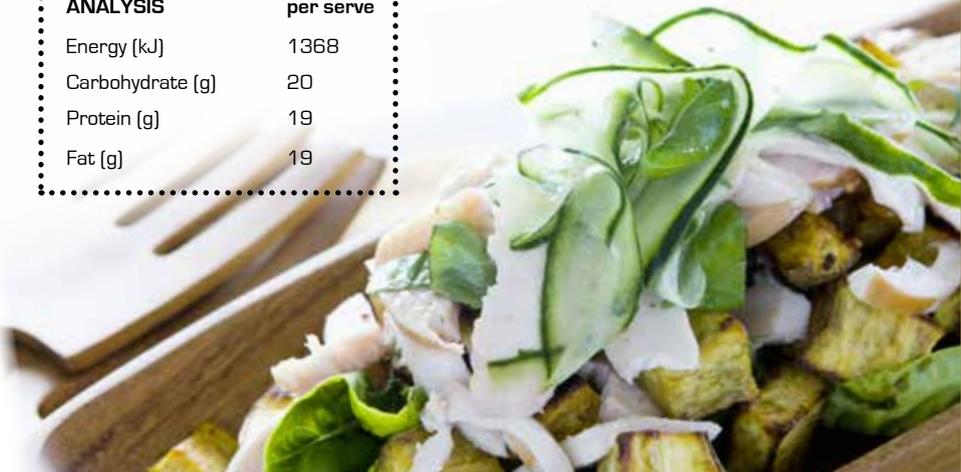
Preparation time: 10 minutes.

Cooking time: 20 minutes.

ANALYSIS	per serve
Energy [kJ]	1368
Carbohydrate [g]	20
Protein [g]	19
Fat [g]	19

WHOLEGRAIN DRESSING

Combine in a small bowl or in a screw top jar 1/4 cup olive oil, 2 tbsp red wine vinegar, 1 tsp MAGGI Green Herb Stock Powder and 1 tsp wholegrain mustard. Mix well or shake vigorously in screw top jar.



This recipe is from the *Fit Food Fast* cookbook. For more recipes visit www.tastyrecipes.co.nz.

By Nutritionist Claire Turnbull - www.claireturnbull.co.nz

For more information and to obtain further copies of any of the Eating for Your Sport Nutrition Advice sheets, visit www.nutrition.nestle.co.nz or www.autmillennium.org.nz/nutrition

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