



ENERGISE

FUEL FOR PERFORMANCE YOU ARE WHAT YOU EAT

As runners, it is important that you eat and drink wisely. This is vital for optimum performance and results.

Text Jaclyn Reutens

Runners achieve peak performance by training and eating a wide variety of the right food. The optimum nutrition is one that provides all the energy and nutrients in the ideal amounts that enhances the performance during the run.

There is no 'one diet fits all'. The choice of food and drinks are influenced by the distance and duration of the run, climatic conditions, the pre-run nutritional status and any pre-existing medical conditions of the runner. Choosing the correct food will meet short term nutrition goals which will eventually maximise performance in the long run.

A runner's diet must have a good balance of carbohydrates, proteins and fat. When this delicate balance is in place, you will meet your requirements of electrolytes, vitamins, minerals and fibre. The most important nutrient is carbohydrate; an adequate intake will delay fatigue and improve performance. The storage

form of carbohydrate in the body is glycogen which is stored in the liver and muscles.

A well chosen diet allows the runner to achieve maximum benefits during each run. Eating well also enhances better recovery in between training runs. It also prepares your body for the next race. It improves confidence level knowing you are nutritionally well-prepared for your run. A good diet promotes consistency in good run timings.

Counting Carbs

The first step is to know where your carbohydrates, protein and fibre come from. Examples of carbohydrates are: rice, potato, pasta, bread, noodles and breakfast cereals. Protein foods are chicken, beef, pork, fish, seafood, dairy foods, nuts, seeds, tofu and legumes. Fibre is found in fruits and vegetables as well as wholemeal and wholegrain foods. The second step is to know how much to eat. This can be tricky as it is dependent on your training

needs. As this is highly individualised, you can have this customised by a sports dietitian. The majority of runners have work commitments and this can make it difficult to meet their daily fuel needs if they are preparing for a big race. Therefore, planning is essential.

The pre-event meal which is one to four hours before the run plays an active role in refuelling and rehydrating. The meal should be rich in carbohydrates especially when glycogen stores in the liver and muscle have been depleted in an overnight fast in the case of an early morning run.

The amount of carbohydrate in the diet is closely linked to performance. An insufficient supply of carbs would kick in the onset of fatigue. Even if the run is less than one hour, the amount of carbohydrates you eat four hours prior would impact your performance. Proportionately, if your run is longer than 90 minutes, you would need at least 24 hours to prepare yourself.

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The Good Fat

Protein needs do increase for runners as they would build more lean muscle tissue. While fat is also a fuel source for the body, healthier fats in the form of olive oil, nuts, seeds are preferred over butter, mayonnaise, margarine, fast foods, deep fried foods, desserts like chocolate, ice cream and cakes. You are still allowed to enjoy the occasional treat but do be sensible in portion sizes.

Poorly chosen foods and drinks can result in early depletion of glycogen stores, hypoglycaemia, dehydration, hyponatraemia and gastrointestinal upset. If you are prone to gastrointestinal problems, you might want to avoid foods one hour before the run and drink 150ml of fluid just half an hour before the run. In this case, what you eat four hours prior would be crucial.

You should always experiment with foods on training days to identify what is suitable for you. This is key in the preparation for race day as you want to refrain from consuming anything 'new' which might cause gastrointestinal discomfort.

Drink Up

Hydration is extremely critical especially in hot and humid Singapore. If you run in a hypohydrated state, you increase the risk of thermal injury and reduce performance. A runner must start each race well-hydrated. The pre-event meal must include 300-600ml of fluid. Continue drinking 150-300ml every 15 minutes until 45 minutes to one hour before the run. Do not forget to make a toilet stop just before the run.

Choices of beverages include plain water for runs under 60 minutes and sports drinks for runs longer than 60 minutes. Avoid fruit juice, cordials, soft drinks before the run as it may upset the stomach.

Sweat loss leads to loss of electrolytes and water from the body. The two main electrolytes of interest are sodium and potassium. It can be assumed that one kilo of weight loss post-run is equivalent to one litre of fluid loss which must be replaced. In some individuals with high sweating rates, the changes in body weight can go as high as three kilos and this must not be mistaken for fat loss. It is difficult to quantify electrolyte loss but all sports drinks contain sodium and potassium which are the preferred drinks.

During a run, the best form of nutrition is water or a sports drink. Sports gels are only needed if the run is longer than 60 minutes. In that situation, consume one sports gel every 30 minutes and wash it down with 150ml of fluid if possible. The best hydration strategy during a run is drinking 150-300ml of fluid every 15 minutes. That is equivalent to three big gulps.

After the run, there is a need to replenish on carbohydrate and fluid losses. Go for sports drinks, fruit juices, water, smoothies, cordials, milk and liquid meal replacements. Eat a proper meal within two hours for recovery and muscle repair.

A runner's main aims are to minimise fluid deficits, ensure there is a steady supply of fuel and prevent any gastrointestinal upset. Once you have got these in check, you are well on track for your best running performance. **R**

TIPS FOR A HEALTHY DIET

- 1 Eat a grainy breakfast. Wholegrains and wholemeal foods sustain your energy throughout the day.
- 2 Always be aware of your carbohydrate needs. Eat more on heavier training days.
- 3 Go lean with protein. Trim fat off meat and eat low-fat dairy foods.
- 4 Snack smart.
- 5 Fatten up your diet with healthier fats and oils.
- 6 Hydrate during and in between meals.

A RUNNER'S MEAL PLAN



Examples of nutritious meals that are rich in carbohydrate and contain moderate amounts of protein are:

- ▶ 1 medium roasted potato with grilled fish
- ▶ Breakfast cereals with low fat milk and fruit
- ▶ Baked beans on toast
- ▶ Sports bar with an isotonic drink
- ▶ 2 slices of wholemeal bread with low fat cream cheese
- ▶ 1 bowl of breakfast cereal with milk
- ▶ 1 cup of rice with stir fried chicken (and vegetables)
- ▶ 1 bowl of noodles with lean beef (and vegetables)
- ▶ 2 slices of toast topped with honey, 150g yoghurt
- ▶ 1½ cups of pasta with meat sauce (and salad)

HEALTHY TREATS/SNACKS FOR RUNNERS

- ▶ Bagel with cream cheese
- ▶ Fruit with yoghurt
- ▶ Sports bar
- ▶ Smoothie made with skim milk, yoghurt, fruit and banana
- ▶ Handful of nuts with a sports drink
- ▶ Sorbet with melons and papaya
- ▶ Strawberries with kiwis and custard
- ▶ 1 slice of bread with cheese or peanut butter

Serves: 2 BREAKFAST**STRAWBERRY
WHOLEMEAL
FRENCH TOAST****Ingredients**

60g fat-free cream cheese
1 tbsp sugar
½ cup sliced fresh strawberries,
more for garnish
1½ whole eggs
½ cup skim milk
½ tsp vanilla
Dash of salt
4 slices whole wheat bread
Syrup or strawberry jam for
topping

Directions

1. Mix cream cheese, sugar and strawberries in a bowl. In another bowl, beat together eggs, milk, vanilla and salt.
2. Spread ¼ of the filling mixture on one slice of whole wheat bread and top with a second slice of bread and gently press together.
3. Dip into the egg batter and put on hot griddle or a pan that's been sprayed with cooking spray.
4. Brown about 2 to 3 minutes on each side. Serve with syrup or strawberry jam. Top with sliced strawberries, if desired.

NUTRITION PANEL

Nutrient	Per Serving
Energy (kcal)	330
Protein (g)	12.9
Total Fat (g)	2.5
— Saturated Fat (g)	2.2
Cholesterol (mg)	139
Carbohydrate (g)	48.5
Dietary Fibre (g)	5.0
Sodium (mg)	536

Serves: 2 LUNCH**CHICKEN AND
ASPARAGUS
PENNE PASTA****Ingredients**

150g penne pasta (uncooked)
½ tbsp olive oil
200g chicken breasts, cut into
strips
1 garlic clove, crushed
200g asparagus, cut into 1½
inch diagonal pieces
½ red bell pepper, cut into 1
inch pieces
¼ cup fresh chopped parsley
Pinch of salt

Directions

1. Boil penne according to instructions on package.
2. Meanwhile, heat oil in a large non-stick skillet. Add garlic and sauté for 1 minute. Add chicken, followed by the asparagus and red pepper; stir for about 5 minutes until the chicken is no longer pink and the vegetables are tender-crisp. Stir in salt.
3. In a large bowl, toss chicken mixture with hot penne and fresh parsley.

NUTRITION PANEL

Nutrient	Per Serving
Energy (kcal)	439
Protein (g)	33.1
Total Fat (g)	11.2
— Saturated Fat (g)	2.6
Cholesterol (mg)	71
Carbohydrate (g)	50.5
Dietary Fibre (g)	4.9
Sodium (mg)	200

Serves: 2 DINNER**FRAGRANT RICE
WITH BEEF AND
CHOY SUM****Ingredients**

½-1 cup rice (brown rice
optional)
1 tbsp Oyster Sauce
1 tbsp Fish Sauce
Juice of ½ lime
½ tsp brown sugar
½ tsp sesame oil
250g beef strips
olive or canola oil spray
½ onion, halved and sliced
1 tsp minced garlic
½-1 tsp minced chilli
½ red capsicum, deseeded and
finely sliced
200g choy sum, shredded
50g bean sprouts
115g can bamboo shoots,
rinsed and drained
¼ cup roughly chopped fresh
mint

Directions

1. Cook rice according to packet instructions.
2. Combine oyster and fish sauces, lime juice and sugar in a small jug, set aside.
3. Heat sesame oil in a non-stick wok or frying pan over medium-high heat and stir fry beef in batches until browned. Remove and set aside.
4. Spray wok/pan with oil, add onion, garlic, chilli and capsicum and stir fry until onion is soft. Add choy sum, bean sprouts and bamboo shoots and mix to combine.
5. Return beef to pan, add sauce mixture and stir until heated through. Remove from heat and scatter with mint.
6. Serve with rice.

NUTRITION PANEL

Nutrient	Per Serving
Energy (kcal)	507
Protein (g)	33.3
Total Fat (g)	17.0
— Saturated Fat (g)	5.6
Cholesterol (mg)	75
Carbohydrate (g)	54.4
Dietary Fibre (g)	5.1
Sodium (mg)	1110

Serves: 2 DESSERT**RASPBERRY
PEAR CRUMBLE****Ingredients**

415g can pear slices in natural
juice, drained
150g frozen or fresh
raspberries
½ cup rolled oats
¼ cup wholemeal plain flour
1 tbsp brown sugar
1 tbsp margarine
1 tbsp golden syrup

Directions

1. Preheat oven to 180°C (350°F). Put pears into a 6-cup capacity ovenproof dish, and spread raspberries over them.
2. Combine oats, flour and brown sugar in a mixing bowl.
3. Melt margarine and golden syrup together in a small saucepan, then add to flour mixture.
4. Mix until ingredients are evenly moistened. Spread over pear mixture. Bake for 25 minutes or until golden brown.

NUTRITION PANEL

Nutrient	Per Serving
Energy (kcal)	390
Protein (g)	6.7
Total Fat (g)	8.4
— Saturated Fat (g)	2.9
Cholesterol (mg)	7
Carbohydrate (g)	72.8
Dietary Fibre (g)	11.8
Sodium (mg)	103