

A Winning Diet



Written by the department of Sports Nutrition Australian Institute of Sport (A program of the Australian Sports Commission), Dr Louise Burke, Greg Cox, Michelle Minehan, Nikki Cummings and Ben Desbrow.
Adapted for New Zealand by Jeni Pearce, Sports Dietitian and brought to you by Nestlé.

NESTLÉ
Good Life
PROGRAM



Nestlé

Good Food, Good Life

Good Partners

In keeping with our ongoing commitment to provide New Zealanders with good food for good living every day, Nestlé is proud to be a foundation sponsor of the Millennium Institute of Sport & Health. To learn more about the Institute, see page 34.

The partnership between Nestlé and the Millennium Institute of Sport & Health will further assist New Zealand athletes in giving them the winning edge in both the local and the international sporting arena.

Nestlé will be focusing on building a practical involvement with the Millennium Institute of Sport & Health for the benefit of the Institute, its athletes and ultimately for all Kiwis who share a love of sport and a common interest in being the best that you can be.

The booklet *A Winning Diet* was originally developed by Dr Louise Burke and her team at the Australian Institute of Sport for Australian Sports people. Jeni Pearce, leading New Zealand Sports Dietitian and Nutritionist for the Millennium Institute of Sport & Health has worked with Nestlé

New Zealand to ensure this booklet is appropriate for New Zealanders.

We are grateful to the Australian Institute of Sport for permission to adapt *A Winning Diet* for use in New Zealand.



**AUSTRALIAN
INSTITUTE OF SPORT**

A program of the Australian
Sports Commission

A Winning Diet

In the modern world of sport, making it to the top requires commitment at many levels. These days it's no longer sufficient to rely on fitness, talent and desire to win. No single factor can turn someone into a sporting legend – most good athletes use many tools to help them perform at their best. The right parents, the right training and the right skills are all important factors in performance. Eating well is also part of the package.

A winning diet is not just for Olympic contenders. Athletes of all ages and levels can benefit from eating well. It's part of knowing that you are at your best, and enjoying what you are doing. That's rewarding, whatever your level of sport.

So what is a winning diet? There is no secret formula or magic eating plan that works for everyone. Eating well is specific to you – to your special nutritional needs and to your schedule of training and competition. This booklet will help you meet the challenges.



contents

Everyday nutrition: eating well in training	5
1. Enjoy a variety of nutritious foods	6
2. Decrease your intake of foods high in fat and oils	7
3. Look after fluid needs - especially before, during and after workouts	8
4. Focus on high carbohydrate food and drinks	10
5. Be responsible with alcohol	12
6. Balance food intake with energy needs - spread food intake over the day	12
Top performance	14
Strategies for quick and healthy cooking	15
Strategies for speedy recovery	15
Strategies to eat iron & calcium in a winning diet	17
Strategies for ordering healthy takeaways	18
A winning diet eating plan	19
Strategies for losing body fat	20
Strategies for achieving a higher energy intake	21
Competition nutrition: eating to win	24
1. Fuel up for your event	25
2. Eat a high carbohydrate pre-event meal	26
3. Eat and drink to recover quickly after events	26
4. Avoid dehydration with a fluid intake plan	28
5. Try eating carbohydrate during your event	29
Special issues	30
Want more information?	33
The Millennium Institute of Sport & Health	34

Everyday nutrition

Eating well in training

The winning diet isn't just for the day of the game or the race. For most athletes, the hours spent in preparation and training will far outnumber the time spent in the competition arena. Everyday eating must tackle a number of goals. Some athletes describe what is important about their training diets:



Swimmer

“Full training for me means two or three sessions a day – in the pool or in the gym. I need to eat so that I can recover quickly from each session and perform at my best in the next.”



Basketball player

“Training is the time to get in top shape. A winning diet and training program will help me to reach my ideal playing weight – whether that means losing body fat or gaining muscle.”



Tennis player

“I know I can't play at my best unless I look after my needs for protein, vitamins and minerals. I know that a heavy training program can increase my requirements for some of these, so I need to eat nutritious foods.”



Rugby player

“I want to eat foods that taste good and that I can enjoy with my family and friends. I want all of us to enjoy the benefits of a winning diet, but I don't want to give up all my favourite foods.”





THE FOLLOWING GUIDELINES WILL HELP YOU ACHIEVE YOUR GOALS

1. Enjoy a variety of nutritious foods

In New Zealand we enjoy an abundance of food choices. There are thousands of different food products on supermarket shelves, most fruits and vegetables are available all year round instead of brief seasons, and we can dine out on the cuisine of any country we fancy. Despite this, many of us think there are only two types of food, “good” foods and “bad” foods. Some people think that a “good diet” means giving up all the foods that are “bad” for us – often the foods they enjoy most.

The good news from sports dietitians is that no foods are “good” or “bad” by themselves, and no food needs to be completely banished from the winning diet. The first rule of a winning diet is to explore and enjoy the variety of foods around us. Variety helps us enjoy what we eat and makes sure that we can meet our nutrient needs from a range of good food sources. Priority should be given to nutrient-rich foods that best look after the special needs of training and keep us healthy. However, there is room for all foods, especially those that are fun to eat or part of eating out socially.

Although some popular diet books have spread the myth that certain foods shouldn't be eaten together, the truth is that meals are improved by mixing and matching foods together. In fact, many foods cleverly combine to enhance the nutritional value of the total meal. Make your meals colourful, interesting and nutrient-rich by combining different foods.

2. Decrease your intake of foods high in fats and oils

For most New Zealanders, a high-fat diet is second nature. Although our bodies need some fats and oils, our typical eating patterns well exceed these requirements. The health disadvantages of high-fat eating include an increased risk of becoming overweight, and problems with heart disease and some cancers. For an athlete, the most immediate problem is that a high fat intake displaces some of the energy we really need from carbohydrate foods. In a winning diet, lower-fat eating makes way for our new fuel foods. Cutting back a little on fats and oils is good for all athletes. However, if you are also concerned with losing some body fat or keeping it off, then you should pay special attention to low-fat eating strategies.

Lower fat eating means reducing your intake of foods that are visibly fatty. Many foods hide large amounts of fats and oils, often added in cooking or preparation. These should also be targeted.



STRATEGIES FOR REDUCING INTAKE OF FATS AND OILS

1. Trim the size of the serve of 'meat' at meals. Most importantly, choose the trim cuts of beef, lamb, pork and chicken. Cut off any remaining fat or skin.
2. Move to low-fat and reduced fat dairy products. Yoghurt, milk, and custard all come in great tasting low-fat versions. Cheese can be found in reduced fat and lower-fat forms.
3. Use low-fat ideas in meal preparation and cooking. Cook with minimal amounts of added fats and oils: dry-fry or stir-fry in a little oil or spray, grill, roast on a rack, steam or microwave. Look at recipe books based on 'healthy cooking' for ideas.
4. Don't smother your food in oil, butter, greasy sauces or dressings. Try low-oil dressings or herbs and lemon juice on salads. Replace butter and margarine on sandwiches with a spread of mustard, salsa, avocado or light mayonnaise. Spice up your food with sauces and relishes that are light and tasty.
5. Be aware of the hidden fat inside many baked or prepared food items. These include treat foods such as cakes and biscuits. Enjoy these in small amounts.
6. Remember that some "healthy" sounding foods are actually high in fat – for example some muffins, toasted muesli or pasta recipes. Find a low-fat alternative.
7. Learn to read labels to identify the total fat content of food. Don't be misled by claims of 'low cholesterol' or low in saturated fat, many foods still have a high total oil or fat content. "Light" is another term that is misleading, and may mean light in salt, flavour or colour rather than low in fat and calories.

STRATEGIES TO REPLACE FLUIDS OVER THE DAY

1. Make sure that you drink at each meal. Don't overlook water as a great choice.
2. Keep a supply of fluids on hand during the day, especially during hot weather. Carry your own water bottle so that you can get a drink wherever you are. Remember not to share your drink bottle for hygiene reasons.
3. Take extra care in hot weather or when you suddenly move to a hot climate. You will not automatically adjust to sufficient fluid intake, at least in the short term. Instead you will need to plan to increase your drinking opportunities.
4. Get a feel for your sweat losses during a workout and how well you replace these. Weigh yourself (towelled down and in minimum clothing) before and after the session. Weight changes do not mean you have lost weight (fat); they simply reflect dehydration. Each 1kg of fluid 'lost' is equal to a litre of fluid. Try to keep fluid deficits over a session to 1kg or less by drinking as often as is practical during the session.
5. Rehydrate quickly after the session. Remember that you will continue to lose fluid over the recovery time through urine losses and continued sweating. Typically, you will need to drink 1.5 times your fluid deficit over the next 1-2 hours to return to fluid balance. For example, if you are 1kg lighter at the end of the session, you will need to drink 1500ml to ensure that you are fully rehydrated.

3. Look after fluid needs – especially before, during and after workouts

Each day we need to replace about 2 litres of fluid to balance general body losses – even before sweat losses during training are taken into account. Sweating is our body's way of getting rid of the heat generated by exercise, and sweating rates increase as the work becomes harder or the environment becomes hotter. Being in fluid balance means replacing losses from day to day, but also preventing dehydration during each training session. You can't train your body to get used to being dehydrated, just like your car can't be trained to run with an empty radiator. Fluid needs will be important to your competition strategies, so start to develop good drinking habits in advance. Apart from the practice, you can look forward to better training when you are better hydrated. Good luck – or even thirst – is not the basis of a good fluid balance plan. Be organised rather than haphazard with drinking plenty of fluids over the day.



Eat for energy



Active athletes and growing kids who participate in sport regularly have increased nutritional needs. They need plenty of fluid both during and after sport to replace sweat loss. Their muscles are fuel-hungry so their main meal should be carbohydrate-rich.

A quarter or more of their energy intake can come from snacks. They should snack on nutritious, high-carbohydrate foods between meals. Kids can learn about good eating and drinking habits for their sport in a way that makes nutrition fun and rewarding. If they discover that eating well can help them win and enjoy their sport more, they will become more likely to aim for good eating habits for the rest of their lives.

Energy food drinks like MILO are a great way to source extra energy, fluid and essential vitamins and minerals in your normal diet.

MILO can also be added to muffins, yoghurt, home made muesli bars and pancakes to make nutritious high energy snacks for the whole family.

www.milo.co.nz



Delicious MILO banana smoothie serves 2

- 2 cups milk
- 1 banana, roughly chopped
- 2 tbsp natural yoghurt
- 1/2 cup of MILO
- Ice cubes

Combine all ingredients in blender until thick and creamy. Pour into serving glasses. If desired, sprinkle with MILO.

So what's in a glass of MILO?

Calcium – for healthy teeth & bones.

Vitamin A – for healthy skin & eyes.

Vitamin B1 – releases energy and improves the functioning of the nervous system.

Vitamin C – for antioxidant function.

Essential minerals – to help kids grow up strong and healthy.

Malt extract – for energy-producing carbohydrates.



Good Food, Good Life



4. Focus on high-carbohydrate foods and drinks

Carbohydrate foods play a vital role as a training fuel. The critical source of energy for exercising muscles is your body's carbohydrate stores – a little from blood glucose and a larger amount from glycogen stored in your muscles. These stores can only provide for up to a couple of hours of continuous exercise, and must constantly be refilled from the carbohydrate in your diet. Running low on carbohydrate causes fatigue – you have probably experienced how bad it feels to run out of fuel. The more you train, the greater your daily carbohydrate needs are. Athletes who train every day can find it difficult to replenish their muscle glycogen levels, day in day out, and may gradually deplete body carbohydrate stores. This is often the cause of tiredness and ineffective training.

Typical New Zealand eating habits do not provide adequate carbohydrate. The focus of a winning diet is to increase our intake of these fuel foods. How much do you need? For general health benefits and to provide energy for a light to moderate training program, sports dietitians recommend that carbohydrate foods should make up more than half our total energy intake. Athletes in heavy daily training may need to eat higher levels again or to achieve special carbohydrate intake targets. For maximum daily glycogen storage an intake of 7-10g of carbohydrate per kg of your body weight is needed. This means an intake of 400-700g of carbohydrate for a typical endurance athlete.

NUTRITIOUS CARBOHYDRATE-RICH FOODS

- Breads
- Breakfast cereals
- Pasta, rice, noodles and other grains
- Fruit in all its forms
- Starchy vegetables – potato and corn
- Legumes – lentils, beans, baked beans
- Cereal bars, breakfast bars and other muesli bars
- Sweetened low-fat dairy foods e.g. flavoured yoghurt, and fruit smoothies
- Pancakes, scones and other foods made with flour





STRATEGIES FOR ACHIEVING A HIGH-CARBOHYDRATE INTAKE

1. Identify high-carbohydrate foods – especially those that are good sources of other nutrients. These foods should become the number one priority in your meals and snacks.
2. Serve meals and snacks so that carbohydrate foods take up most of the room on your plate. Sometimes it's as simple as dishing up the carbohydrate foods first, leaving less room for the other parts of the meal. Otherwise, cook recipes that make a carbohydrate food – like rice, pasta or potatoes – the main ingredient.
3. Remember that although other vegetables and salad are good sources of some vitamins, minerals and fibre, and are important in our diet, they don't contribute large amounts of carbohydrate. Therefore, check for other carbohydrate foods at your meals.
4. Note that sugar and sugary foods also provide carbohydrate and can be used to add extra fuel to a nutritious carbohydrate-rich meal or menu. There are some situations in which these foods are particularly handy, because they taste good and are compact and easy to eat. A sports drink or cordial is a good way to top up fuel needs during a long training session. A sweet dessert can be a light way to finish off a meal, rather than chewing your way through extra high-fibre foods. Use sugar and sugary foods to top up fuel needs, especially when your energy requirements are high.
5. If you need to reach special or very high carbohydrate intake targets, it is useful to talk to a sports dietitian. They will help you to identify good fuel foods, and plan an eating pattern that fits your daily timetable and stomach capacity.



5. Be responsible with alcohol

Alcohol has a strong link with sport through sponsorship. Although we have no need to drink alcohol in a winning diet, it can still be part of the healthy lifestyle of an athlete. Whether you drink at all is a personal decision. Unfortunately some sports people use alcohol badly, in terms of their health and their performance.

There are many community health messages that remind us of the problems associated with single or repeated occasions of heavy drinking. One of the issues overlooked in some sports is the effect of alcohol on recovery after exercise.

If you intend to enjoy a drink after training or competition, make sure that you have already refuelled and rehydrated with high carbohydrate foods and drinks.

Alcoholic drinks are not a good source of carbohydrate, promoting less efficient rehydration than other fluids. Put first things first and if you do drink, do it in moderation.

6. Balance food intake with energy needs – spread food intake over the day

Now that we know how foods fit into a winning diet, we must arrange the winning diet to fit our total nutritional needs and our daily timetable. How much you need to eat depends on how much energy you expend and whether you wish to maintain your current weight and body fat levels. These factors will vary from athlete to athlete, and at times you may want to change the balance to lose or gain weight. In other words, eat enough to keep your weight and body fat on target. Don't worry if this seems to be different to other athletes.

We should also arrange our daily plan of meals and snacks to keep pace with energy. Skipping meals – particularly breakfast – and overeating later on is a typical trap. This is not good for 'get up and go' or for weight control. Get into a healthy eating rhythm that fits in with your training times and other daily commitments, such as work or school.



A Winning Meal



Creamy bacon and mushroom pasta serves 4

300g spaghetti
4 lean bacon rashers, chopped
2 garlic cloves, crushed
250g button mushrooms, sliced
1 tbsp cornflour
375ml can CARNATION Light & Creamy Evaporated Milk
2 spring onions, sliced
freshly ground pepper

Step 1: Cook pasta following the packet directions.

Step 2: Heat a non-stick pan. Add bacon and garlic and cook, stirring for 2 minutes. Add the mushrooms and cook, stirring for a further 2-3 mins.

Step 3: Place cornflour in a small bowl and gradually add $\frac{1}{4}$ cup of the evaporated milk, stirring until smooth.

Step 4: Add remaining evaporated milk to pan then gradually add the cornflour mixture, stirring constantly. Bring to the boil, stirring.

Step 5: Add spring onions and simmer for one minute, stirring. Season with pepper before tossing through the drained pasta.

Athletes and busy people need to make smart food choices to avoid missing out on valuable nutrients. Meals need to be based around a lean protein source, lower fat dairy foods, vegetables and a carbohydrate source. Simple quick recipes for soups, pasta dishes, risotto, stir-fry and some Asian meals are ideal. With a little creativity and variety, meal times can be kept interesting.

Sports Dietitian Jeni Pearce says elite athletes are often encouraged to eat a lower fat diet as it allows for an increased amount of carbohydrate foods to be consumed.

CARNATION Evaporated milk added to sauces increases the protein and calcium levels while providing a creamy texture without the fat.

www.nestle.co.nz



Nestlé

Good Food, Good Life

Top performance



Endurance athlete

Q: “I know I need to eat plenty of carbohydrate foods, but is there anything else I can do to help my recovery after a training session?”

A: Eating enough carbohydrate to replace fuel stores is important in daily recovery, but so is the timing of food intake. Recent research has shown that eating soon after a heavy training session helps to speed the recovery



process. A hungry muscle is looking for a quick fix of carbohydrate, and perhaps some protein, to begin refuelling and rebuilding. Refuelling only begins effectively when carbohydrate is consumed, so if the time between workouts or competition sessions is tight (for example, eight hours or less), it makes sense to make every moment count. Of course, rehydrating is also part of the job of recovery.

Team coach



Q: “How can I make sure that my players go home and eat a high carbohydrate meal? Some of the athletes can go home to home cooking with their families, but many of our players are young and single and living on their own. What can they do?”

A: The move away from home can place a lot of pressure on a young athlete. It can be hard to get organised on the domestic scene when you are used to Mum looking after you. Many young athletes lack nutrition knowledge and cooking skills, and this is not helped by arriving home tired from a late training session to find the cupboard is bare. It is a critical time in a sporting career, and poor nutrition can often be a downfall. A committed athlete and a wise team will identify problems early and find practical ways to make good nutrition part of the program.

STRATEGIES FOR QUICK AND HEALTHY COOKING

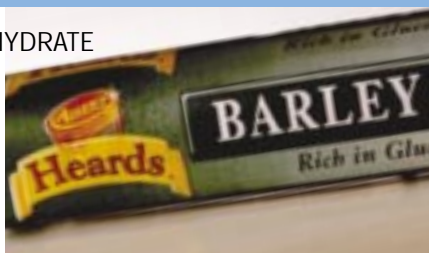
1. Look for recipe books for quick and healthy cooking, including special books written for athletes. *Eat to Compete Cookbook* – Jeni Pearce 1999 (Reed Publishing), *Quick Food for the Heart* – Glenda Gouley 1999 (National Heart Foundation), *Survival for the Fittest* – Australian Institute of Sport 1999.
2. Make use of commercial food products such as pasta sauces, frozen vegetable mixtures, pizza bases and quick-cook rice and pasta. There are many nutritious and time-saving products that can be quickly constructed into a tasty meal.
3. Learn to batch cook and freeze leftovers for another occasion. When arriving home late, it is great to be able to zap up a meal.
4. Organise for a sports dietitian to run cooking classes or supermarket visits, to help you and your team mates become organised with shopping and cooking.

STRATEGIES FOR SPEEDY RECOVERY

1. Rehydrate quickly after a long workout and remember that sports drink, cordial and fruit juice provide carbohydrate as well as fluid.
2. If the next session is less than eight hours away, try to schedule a snack or your next meal within 30-60 minutes of finishing the first workout.
3. Many athletes do not feel like eating after a heavy exercise session. In this situation, drinks or a light snack can be an inviting option until the next meal is possible. An intake of 50-100g of carbohydrate will start the refuelling process (see the list of snacks or light meals that can provide this carbohydrate target).
4. Note that carbohydrate snacks providing protein and other nutrients may promote speedy repair of any damaged tissues.
5. If home is far away and there are no suitable food outlets at your training or competition venue, be prepared and take your own supplies.

IDEAS FOR 50G SERVES OF CARBOHYDRATE

- 800-1000 mL sports drink
- 500 mL fruit juice or soft drink
- 250-350 mL fruit smoothie
- 250-350 mL liquid meal supplement
- 50g HEARDS Barley Sugar
- 1 round jam or honey sandwich (thick-sliced bread and a lot of jam or honey)
- 3 muesli bars or 2 cereal bars
- 3 medium-large pieces of fruit (e.g. apple, orange, banana)
- 2 cups breakfast cereal and skim milk



- 2 x 150g carton low-fat fruit yoghurt
- Cup of thick vegetable soup and large bread roll
- 2 cups fruit salad and 1/2 carton of low-fat fruit yoghurt
- 1 large bread roll and banana filling



Female endurance athlete

Q: *“Are there any special nutritional needs for females? I’ve heard iron and calcium can be a problem.”*

A: For many female athletes, the struggle to keep body weight and body fat at a desirable level becomes the dominant issue of nutrition. In some cases it can take over your life and make eating and sport – activities that should be pleasurable – full of misery and frustration.

Part of this problem is in setting targets that are healthy, good for performance AND achievable. This is understandable, since in our society females are rarely satisfied with their shape and weight, no matter what it is. Even when loss of body fat is warranted, many female athletes are tempted to follow quick weight-loss schemes and fad diets – risking frustration and failure to achieve long term weight control, as well as

the risk of nutritional deficiencies. Your menstrual cycle is often a casualty of inappropriate weight-loss and other poor nutrition practices. Whatever the cause, absent or irregular periods should always be discussed with a sports physician. Hormone balance is important for the health of your bones – and strong bones are not only important for your sporting career, but also to reduce the risk of osteoporosis later in life.

It is important to set yourself a healthy weight and body fat level, and a happy attitude about your body. It is often useful to get some expert help with this. Even if it seems that male athletes have an easier time with their body fat levels, be pleased with all the benefits of your winning diet.

Iron and calcium are important nutrients for all athletes, but are often in short supply in the diets of female athletes. The best calcium sources are dairy products, with low-fat and reduced-fat types playing a major role in a winning diet. We should all include at least three serves in our daily food intake. Calcium is important for strong healthy bones, especially during teenage years when peak bone mass is being laid down. A regular menstrual cycle is also important for this process.

Iron is important for good oxygen-carrying-capacity in your blood and muscles, and iron deficiency may cause fatigue and loss of performance in heavily training athletes. Many athletes find it difficult to meet the iron needs of heavy training. Female athletes have even greater requirements to cover the iron losses due to menstruation.

STRATEGIES TO EAT IRON & CALCIUM IN A WINNING DIET

1. Include red meat and other iron-rich foods (shellfish, liver) in your meals at least three times per week. These can be added to high-carbohydrate dishes such as meat sauce on a pasta dish, roast lamb in a sandwich or kebabs with rice.
2. Enhance the absorption of the iron found from plant sources (whole grains, breakfast cereals, legumes, leafy green vegetables etc.) by adding meat or a vitamin C food at the same meal. For example, drink a glass of orange juice with your breakfast cereal, or add a little meat to beans to make chilli con carne.
3. Don't self diagnose iron deficiency simply because you are tired. Only take iron supplements on the advice of a sports dietitian or doctor. They may be useful in the supervised treatment and prevention of iron deficiency but they are not a substitute for a better diet.
4. Eat at least three serves of dairy foods a day, where one serve is equal to a glass of milk, a carton of yoghurt or a slice of cheese. Low-fat and reduced-fat types are available. Dairy products can be added to a high-carbohydrate meal (e.g. milk on breakfast cereal, cheese in a sandwich, flavoured yoghurt added to fruit salad).
5. Note that calcium-enriched brands of soy milk are a suitable substitute for milk. Fish eaten with bones (e.g. tinned salmon or sardines) are also a useful calcium source.
6. Increase your calcium serves to 4-5 per day if you are growing, having a baby or breast-feeding. Note that female athletes who do not have regular menstrual cycles also require extra calcium and should seek expert advice from a sports physician.
7. See a sports dietitian if you are a vegetarian, or unable to eat dairy products and red meat in these recommended amounts. With assistance you may find creative ways to adapt your eating patterns to meet iron and calcium needs, or to use mineral supplements correctly.



STRATEGIES FOR ORDERING HEALTHY TAKEAWAYS

1. Find a style based on bread (e.g. hamburger, focaccia, Mexican fajitas), pizza base, rice (curry or Chinese), potato (stuffed baked potato), sushi or pasta.
2. Avoid foods that are battered, fried (especially deep-fried), or in pastry.
3. Avoid fatty meats and large amounts of cheese. Have one or the other instead of doubling up.
4. Use salads, fruit or vegetables to add bulk to the meal. For example, have salad with your burger, instead of 'the lot' or 'fries'. Have a seafood, vegetarian or chicken/vegetable, ham/pineapple/vegetable topping on pizza instead of 'meat-lovers special' or 'supreme with extra cheese'.
5. Be wary of added fats and dressings. Flavour with tomato sauce, salsa, light dressings or mustard rather than cream, sour cream and mayonnaise.



Football player

Q: "What about takeaways? They come in handy after a late night at the club."

A: Most takeaway foods are not a good basis for everyday eating since they tend to be high in fat and inadequate in carbohydrate and fibre – as well as expensive. However, if you are eating on the run, takeaways can be useful, and with a little thought you should be able to order a lower-fat high carbohydrate choice.



A Winning Diet Eating Plan

Sports Dietitian Jeni Pearce says eating a wide variety of foods is an important part of any eating plan. Here is a suggested meal plan that is aimed at supplying a variety of foods essential to an active lifestyle. Make sure that your diet includes plenty of fruit, vegetables, lean meat, lower fat dairy foods, whole grains and seafood for a healthy supply of essential vitamins, minerals and fibre.

Before exercising, ensure you are well hydrated and have eaten a lower-fat carbohydrate rich diet.



breakfast

Use lower fat milk where possible for drinks and cereal. Drink plenty of water.

lunch

Serve all meals with fresh fruit. Drink plenty of water or juice.

dinner

Serve all meals with a drink, either water or juice.

Cereal with fruit and milk and fruit juice	Bread rolls with ham and salad filling	MAGGI Chinese Beef Stir Fry with noodles and beans
Porridge with milk, fresh or canned fruit and milk MILO	Vegetable soup with noodles added	Trim pork with satay sauce, rice, courgettes and corn
Fruit toast, or fruit muffin, yoghurt and juice	Muffin split with scrambled eggs	Grilled fish with MAGGI Garlic and Parsley Potato Mash, steamed green vegetables and grilled tomatoes
Crumpet, fruit salad and NESCAFÉ decaf latte or milk (latté)	Pita pocket or chicken wrap with hummus and salad filling	Spaghetti Bolognese using lean minced beef and green salad
Muffin splits, poached or boiled egg and fresh fruit	MAGGI 2 minute noodles with tuna and vegetables such as peas, corn, broccoli, capsicum, mushrooms	Couscous with grilled Mediterranean vegetables and feta cheese, with roast pumpkin
Wholemeal toast and MILO smoothie with yoghurt and banana	Baked potato filled with baked beans, grated cheese and spring onions	MAGGI Apricot Chicken with rice and broccoli

Note: additional vegetables can be added to meals

STRATEGIES FOR LOSING BODY FAT

1. Remember that losing body fat is a long-term goal – a consistent loss of half a kilogram per week is a good target for most athletes. This can be achieved with a small reduction in energy intake each day.
2. Keep a food record for a week to face the truth about what really goes into your mouth. Look for improvements that you can make in the long term to address the quantity and type of food you eat.
3. Target times that you eat too much food – for example, overeating because you have let yourself get too hungry, or when you eat what everybody else is eating. Eat what you need instead of what is there.
4. Pay special attention to low-fat eating strategies.
5. Be aware of the times that you eat because you are bored or upset.
6. See a sports dietitian to help you plan a suitable eating programme.



Netball player

Q: *“How do I lose body fat, especially if I have gained weight during a break from training?”*

A: Although athletes talk about being overweight, it is excess body fat that slows you down. Skinfold measurements (the ‘pinch test’) are often used to assess body fat levels. You should work with your coach to identify a weight and body fat level that correspond with good health and good performance. At some time during their career, most athletes need to lose body fat to reach their ‘ideal’ level. This should be achieved by changing energy balance, so that daily energy expenditure exceeds daily energy intake. This may require changes to both food intake and training.





Swimmer

Q: "How do I put on weight? Do I need to eat protein to get bigger?"

A: Improved strength of muscle bulk is principally a result of doing the right training. Of course, "filling out" can also be a process of gradually maturing in age and training. You may need to work with your coach to set body size and strength goals and to decide on a suitable resistance training program. There is no magic food or protein powder that provides a short cut to results, or a replacement for the right training. Extra protein is not the chief nutritional need for muscle gain. Instead, extra energy intake should be your goal. Extra quantities of a winning diet will provide additional carbohydrate to fuel your training, and plenty of protein and other nutrients to build the result. Some athletes in heavy training may have to work on the same principles to stop unwanted weight loss.

Although it might sound like heaven, eating more food can be a hard task for those with very high energy requirements. Finding the time and the right foods to eat can be a problem for athletes with hectic timetables. Sometimes the size of meals can outweigh comfortable eating capacity.

STRATEGIES FOR ACHIEVING A HIGHER ENERGY INTAKE

1. Increase the number of times that you eat rather than the size of your meals. Plan to eat 5-6 small meals and snacks a day.
2. Find high carbohydrate snacks that can travel with you throughout your busy day. Portable fuel foods include cereal and breakfast bars, fruit, cartons of yoghurt and sandwiches and flavoured milk or liquid meals in tetra packs.
3. Don't overdo the high-fibre choices of food. Replace some of your wholemeal breads and cereals with white versions so you don't fill up easily.
4. Add sugar and sugary foods to meals. Jams, honey and syrups can be added to nutrient-rich foods to boost the total carbohydrate content. Don't feel you always need to buy the 'no added sugar' version of foods such as canned fruit, yoghurts and fruit juice.
5. Enjoy action-packed drinks for compact carbohydrates. Fruit juices, sports drinks, soft drinks and cordials all add extra fuel to the fluid. Fruit smoothies and liquid meal supplements are packed with fuel and other nutrients. Get handy with the blender to mix up milk, fruit, icecream or yoghurt, and skim milk powder or powdered liquid meals! Commercial liquid meals are especially easy if you need a quick and fuel-rich snack.



Swimmer

Q: *"Do I need to take supplements? There seem so many to choose from and they all promise great results!"*

A: The sports world is filled with advertisements and stories about supplements, all claiming to improve speed, strength, leanness and endurance. The range is never-ending and the promises are tempting.

However, there are no short cuts to the top. Many of these supplements have either not been tested, or have not lived up to their claims when tests have been conducted.

It is also possible that the benefits seen by some athletes come from the power of positive thinking. Seeing a change because you believe in something is known as a "placebo effect".

While it is possible that future research will prove the benefits of new supplements, do not lose sight of the factors that can really improve your performance: a winning diet, good training, the right equipment and a winning attitude.

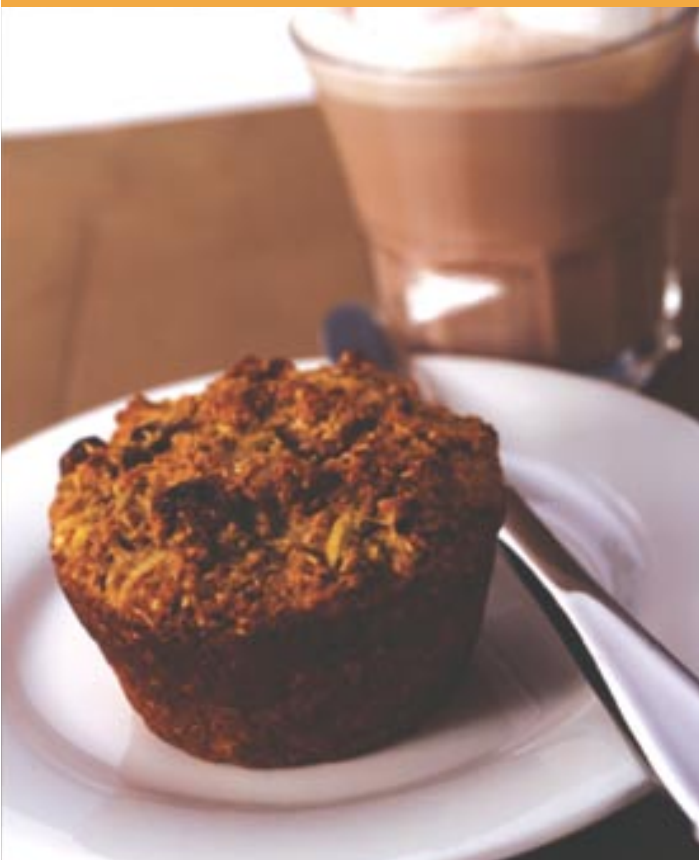
Of course, there are some supplements that can be part of a winning diet. Supplements such as sports drinks, sports bars and liquid meal supplements can be very useful in meeting important nutritional needs in sport. These supplements are a tailor-made and practical way to provide nutrition at special times - particularly during and after exercise. However, the benefits come not from the supplement itself, but from knowing how to use the supplement as part of your nutrition plan.



Creatine is the hottest new supplement on the market, and unlike many of the products that hit the headlines each month, it has undergone the scrutiny of scientific research. Sports scientists have found that creatine supplementation can increase muscle stores of this fuel source, and enhance recovery between high intensity workouts with short rest intervals. Although further research is needed to determine benefits to the performance of specific types of sports, and to confirm the lack of long-term side effects, creatine may be a useful aid for some athletes in particular activities.

A sports dietitian can help you with further expert advice about creatine and other supplements.

Healthy treats



Light apple bran muffins

Makes 12 muffins

- 2 cups baking bran
- 1 cup plain flour
- 2 tsp baking powder
- 1 tsp baking soda
- 1 tsp cinnamon
- 1 tsp mixed spice
- $\frac{3}{4}$ cup HIGHLANDER LITE Sweetened Condensed Milk
- $\frac{1}{2}$ cup warm water
- 1 egg beaten
- 2 tbsps golden syrup
- 3 apples, grated
- $\frac{1}{2}$ cup sultanas

Step 1: Preheat oven to 200°C. Lightly grease muffin pans.

Step 2: Place bran in a bowl, Sift in flour, baking powder, baking soda, cinnamon and spice; stir to combine. Make a well in the centre of dry ingredients.

Step 3: Combine condensed milk, water, egg and golden syrup in a bowl.

Step 4: Pour liquid mixture into well and add apple and sultanas. Stir until dry ingredients are just dampened.

Step 5: Three-quarters fill each muffin pan with mixture. Bake in preheated oven for 15-20 minutes or until muffins are golden brown.

Many active sports people like to indulge in the occasional sweet treat without going overboard on fat.

Baking is an ideal way to satisfy the desire for treat foods. Make some Lite Apple Bran Muffins, add marshmallows to hot MILO drinks, grate chocolate into banana cake recipes, and look for recipes that include lots of dried fruit such as fruitcake or slices. Confectionery bars or sweets can give a fast energy boost.

Remember a treat is eaten once in a while, and it ceases to be a treat if eaten everyday!

www.nestle.co.nz



Nestlé

Good Food, Good Life

Competition nutrition

EATING TO WIN

Competition day calls for special preparation to see you ready and confident to put yourself on the line. Now is the time to eat to win. Some athletes discuss the nutrition challenges in their events.



Tennis player

“Matches can turn into a real endurance event. Many times I’ve played matches that stretched into four or five hour contests. I need to make sure that my muscles have got fuel to keep me running right to the end – whether it’s one hour or five”.

“It’s hard to keep hydrated during a match. I sweat a lot when I play, particularly when it’s hot. Sometimes it’s a furnace out on the court. I’ve heard that temperatures on centre court can get close to 50 degrees. How important is it to drink during a game?”

Basketball player



“Recovery is the name of the game in tournaments and road trips. On weekend trips we can play two or three games. At a tournament we may have to play every day for a week or 10 days. How can I eat to maintain performance, day in, day out?”



Distance runner

“Even when I load up before my event, I will need more carbohydrate fuel to race well. Therefore

I need to consume a sports drink during my race. Extra carbohydrate will keep my muscles working and keep me feeling good. Running out of fuel in endurance events interferes with work output, and my ability to think clearly.”



Distance walker

“A 50 km walk is a 4-5 hour event. I need to take special steps to load up my muscle fuel stores before I race. Hitting the wall by running out of fuel is no fun, so I take care to prepare well before I race.”



Rugby coach

“To win the competition you have to be able to bounce back after one hard game and be at full-strength for the next. The draw no longer guarantees seven days for recovery, and I expect the team to train during the week. Good recovery is one of the most important factors in a successful team, so I want my players eat to recover.

“Matches are a real endurance event for many players. We’ve done measurements on some of our running players - and they can clock up to 10 kms per match - much of it at high intensity. I need to know that my players have prepared properly before each match, making sure that their muscles have got enough fuel to keep them running until the final siren. Games can be won or lost in the last minutes.”

STRATEGIES

Competition nutrition strategies will vary according to the needs of your sport and the practical considerations of your competition timetable and rules. However, the following guidelines should help you gain that winning edge.

1. Fuel up for your event

Fuelling up body carbohydrate stores is a key part of competition preparation. Some athletes think that this activity involves great gluttony over the days or night before a competition, often involving foods of low nutritional value. This type of preparation can leave the athlete feeling full and uncomfortable. In addition, if high-fat foods have been eaten instead of true high-carbohydrate foods, then muscle fuel stores may not fully benefit.

You should already be an expert at high-carbohydrate eating, since this is the basis of a winning training diet. You might like to further increase high-carbohydrate foods in the meals leading up to competition, but stick to the eating patterns that you know and trust. Twenty-four hours of tapered training or rest, together with high-carbohydrate eating will ensure well-stocked muscle fuel stores suitable for most events.

Carbohydrate loading is a more specialised version of fuelling up for competition. This strategy is used by endurance and ultra-endurance athletes who compete in events lasting two



hours or longer. Although it has enjoyed a lot of hype and mystery, in simple terms, carbohydrate loading is just an extended period of fuelling up. By extending to three days of an exercise taper and high carbohydrate eating before an event, muscle glycogen levels are lifted above their normal stores. This extra fuel won't make the athlete go faster, but will prolong the time that they can maintain their optimal race pace. Not all athletes can manage the ingredients of relative rest and a high carbohydrate intake, and may need help from a sports dietitian to plan a menu. It makes sense to use low bulk and compact carbohydrate foods and drinks to meet fuel intake goals comfortably.

In the past some marathon runners used to include a 'depletion phase' before loading to enhance their muscle glycogen gains. This is not considered necessary by modern sports scientists. In fact, trying to complete the last week of training while depleted can make you feel weak and psyched out. If your event will benefit from extra glycogen stores, stick to the three day fuelling program.

2. Eat a high-carbohydrate pre-event meal

The pre-event meal provides a final opportunity to top-up fuel and fluid levels. This may be important if you're still in recovery mode from your last event or workout. Most importantly, your last meal should keep you feeling comfortable throughout the competition. It can often be difficult to eat anything if pre-event nerves leave you with butterflies in the stomach.

A high-carbohydrate, low-fat meal or snack is the perfect choice for a pre-event meal. Depending on the time of day, you might like to adapt one of the meals that is part of your everyday winning diet. It is best to eat bigger meals three to four hours before you compete, although a light snack can usually be eaten one to two hours before your warm-up. Liquid meal supplements are better tolerated than a solid meal, particularly if you are feeling nervous.

Each athlete has their own routine, based on their individual needs and likes, and fine tuned through experience. Experiment in training to find a plan that works for you.

3. Eat and drink to recover quickly after events

Most competition schedules call for rapid recovery between events. Refuelling and rehydrating should become 'the norm' in your post-competition activities. Don't waste important time straight after the event when your body is most receptive to fluid, carbohydrate and other recovery nutrients. You may have to juggle eating and drinking with other commitments.

Sports drinks will help with speedy recovery and you may have developed some favourite recovery snacks among your training tactics. Competition venues may not always provide access to suitable foods and drinks. Sometimes you may be glad that you brought your own supplies. Good planning will see you bouncing back to face a new opponent.

EXAMPLES OF HIGH CARBOHYDRATE, LOW-FAT PRE-EVENT MEALS

- Breakfast cereal + low-fat milk + fresh/canned fruit
- Muffins or crumpets + jam/honey
- Pancakes + syrup
- Toast + baked beans (note this is a high-fibre choice) or tinned spaghetti
- Creamed rice (made with low-fat milk)
- Rolls or sandwiches with banana filling
- Fruit salad + low-fat fruit yoghurt
- Pasta with tomato or low-fat sauce
- Baked potatoes with low-fat filling
- Sports bars or cereal bars & sports drink
- Fruit smoothie (low-fat milk + fruit + low-fat yoghurt/icecream)
- Liquid meal supplement

Nutrition for Peak Performance



We are all told about the importance of preparation for sport. But how many of us know the importance of recovery after working out or playing a sport?

Recovery is absolutely critical in helping your body look after and repair your muscles, enabling you to continue to perform at your peak in the future. Rest, massage, hydrotherapy, rehydration and recovery snacks are all ways to help your tired body recover.

Choosing the right food products and eating a balanced diet can enhance overall well-being and improve your performance.

This is why many athletes and active people rely on POWERBAR energy products as part of their routine. POWERBAR products have been developed by athletes and scientists as a convenient and delicious source of energy and nutrition to help active people perform at their best.

Athletes in training, growing children, teens, and all active people should be focused on eating a variety of foods that provide the essential nutrients to keep their bodies well-nourished and to enhance muscle glycogen stores, the primary source of physical energy.

For more information on sports nutrition, visit

www.powerbar.com.au

What is POWERBAR?

POWERBAR products are packed with nutrients needed by the body before, during and after activity. Designed to deliver energy for superior performance, the POWERBAR range includes bars and gels. POWERBAR is a compact and portable source of carbohydrate and protein.

POWERBAR Gel

Provides immediate energy or fast fuel during sport or intense exercise and contains essential amino acids to help maintain and preserve muscle tissue.



POWERBAR Performance

The original energy bar is designed to be eaten before exercise or during a race.



POWERBAR Protein Plus

Designed to be enjoyed after exercise or a race to speed up muscle recovery. It contains a carefully balanced combination of protein and carbohydrates and assists with repairing and rebuilding muscle tissue that gets damaged through intense activity.



STRATEGIES FOR IMPROVED HYDRATION DURING COMPETITION

1. Be aware of likely fluid losses by monitoring fluid balance in training sessions. Practise drinking in training so you know what feels comfortable and can optimise your fluid replacement.
2. Look at the opportunities that your event provides for fluid intake. Look for formal breaks such as quarter and half-time breaks, or substitutions. Make sure fluids are on hand during these times.
3. Some sports also allow players to drink during the match play, at informal breaks such as rule infringements or game stoppages. If trainers are unable to take fluids to players, educate the player to come to the boundary for a quick drink. This is especially important in hot conditions.
4. Provide athletes with their own drink bottles so they can be aware and responsible for their own fluid intake. Never share drink bottles.
5. Be sympathetic in marathons, triathlons, cycle races and other continuous events, that athletes must drink literally "on the run". This may lead to gastric discomfort, and athletes must also count the time taken to grab and consume their fluid supplies. However, remember that the time lost can be made up by better performance resulting from better hydration. Clever drinking devices can also help the athlete to drink without dropping their pace. Practise this in training.
6. Water is a good fluid for most sports. However in sports of greater than one hour in duration, there may be benefits from adding carbohydrate to the mix. (see page 29) In any case, a sweet-tasting drink is likely to be consumed in greater quantities than plain water. Encourage fluid intake during exercise by making drinks cool and palatable.

4. Avoid dehydration with a fluid intake plan

Unless sweat losses are replaced during exercise, an athlete will become dehydrated. Most of us know that severe levels of dehydration have a dramatic effect on exercise performance. But even small fluid losses reduce performance and increase your feeling of effort.

Of course the effects at lower levels of dehydration are more subtle – you may not notice it slowly eating away at your performance. However, well before the effects seem obvious, your work output has dropped and your skills and concentration have deteriorated. A good fluid intake is a crucial part of your competition strategy, and you will be pleased that you practised this in training. In an ideal world an athlete would drink enough fluid to cover all sweat losses during their event. However in the real world of sport this is not usually practical or possible. A realistic goal is to use all opportunities to drink what is practical and comfortable in your sport. At best, most athletes only replace 50 percent of their fluid losses during the event so there is plenty of room for improvement.

A special issue to note is that one side effect of dehydration is an increased risk of gastric upsets. Some athletes who feel sick or uncomfortable after stopping for a fluid break, often blame the drink for their problems. The real problem, however, is dehydration – caused by not drinking sooner.

5. Try eating carbohydrate during your event

You may have experienced the feeling of “running out of legs” or “running low on fuel” during your competition. This is typical in prolonged events that require athletes to exercise at high intensities for many hours. You might know the feeling as “hitting the wall” or “bonking”. You can also run out of fuel in shorter events or games that are part of a busy competition schedule such as road trips and tournaments.

When workouts or events are close together it can be hard to fully refuel in between. You can provide extra fuel by consuming carbohydrate during the event. This strategy has been shown to benefit performance in events lasting longer than 90 minutes, but recent research has shown that enhancements might also occur in events of as little as one hour duration. You should experiment to see if carbohydrate intake works for your sport and for you.

Some athletes eat food during their event to provide extra carbohydrate fuel. Fruit, sports bars and confectionery items are popular choices. However, one disadvantage of solid foods is that they may cause stomach discomfort, particularly during high intensity exercise.

Sports drinks provide an alternative and more practical way to refuel during exercise. The special formula of fluid, carbohydrate and electrolytes has been developed to taste good to exercising people, promoting an increase in total fluid intake as its first advantage. The formula also provides



efficient delivery of carbohydrate while rehydrating the athlete.

Some people think that sports drinks are only useful to elite athletes. Since they are more expensive than plain water, it is important to consider if they provide value for money. The answer concerns nutritional needs rather than sporting talent. If you are involved in a sport in which you are sweating and depleting fuel stores, then a sports drink provides a simple answer to meet your special needs. Good use of a sports drink will improve your endurance and performance. This represents value, whether the outcome is a gold medal, a personal best, or simply your enjoyment of an exercise session. Nevertheless, if expense is a problem, then a dilute cordial mix can provide a cheaper option.



SPECIAL ISSUES



Basketball player

Q: "I finish many of my games late at night. Should I eat then?"

Isn't it bad to go to bed with a full stomach? Even when I finish a game or practice in the early evening, I don't feel like taking the time to prepare and cook a meal. I just want to eat quickly and get to bed."

A: Many sedentary people eat most of their day's intake at the end of the day, when they are most inactive. These are the people who should try to reduce their night-time snacking. However, for an athlete who has just finished a game or training late in the evening, eating is an important part of the recovery process. It is hard to find the time and energy to cook a meal when you arrive home late. If you are living in a family situation, you may be lucky to have your meals cooked for you. Hopefully all family members are enjoying high carbohydrate eating and you can simply heat up your meal when you get home. If you are looking after your own meals, then it is a great idea to cook ahead. There may be time before your game to prepare a meal, or you can save

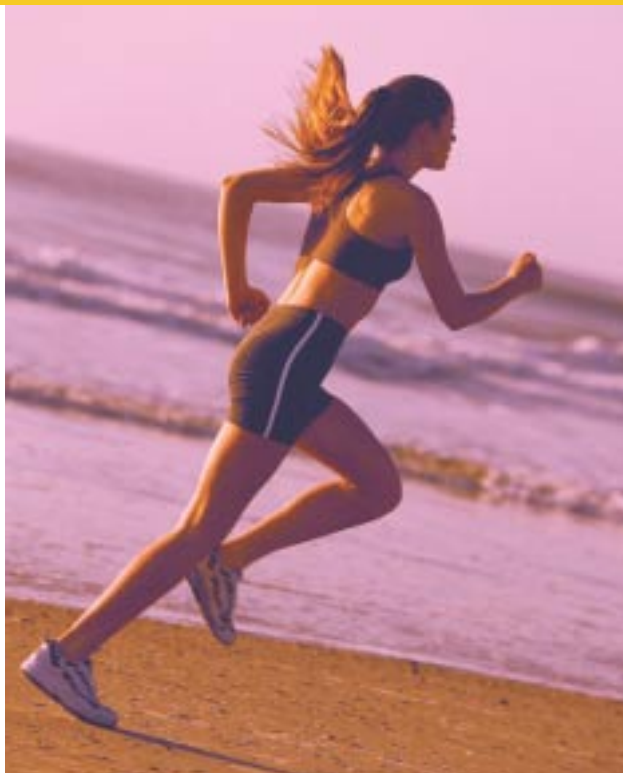
some leftovers from a previous occasion. When games are really late, you may be able to eat a hot meal as your pre-game meal, and eat a lighter snack after the game. Portable snacks may be taken to the game and eaten immediately afterwards, or on the trip home. An action-packed drink or a bowl of cereal are other high-carbohydrate snacks that can be quickly prepared when you get home.

Q: "Our season is filled with road trips in which we play two or three games over a weekend. How can I recover well for this schedule while I am away from the comforts of home?"

A: Travelling can become a way of life for the elite athlete. Teams may provide players with a daily allowance to look after their own food requirements, or better still the team manager may organise a schedule of meals and snacks to suit nutritional requirements and the timetable.

Team eating can be a great way of looking after team spirit as well as food needs. Most restaurants or hotels can supply a suitable high-carbohydrate menu - especially if you organise this ahead of time. It is a good idea to arrange buffet-style service - since this is a quicker way to provide food to a large group and allows each athlete to choose exactly what they want. But take care when you are eating in groups or in "all you can eat" situations. It can be easy to lose the plot and overeat treats or total meal size. Don't worry about what other people are eating. Eat just what you need. There will be plenty of time for celebrating afterwards.

Fast flavour



Sweet chilli chicken

Serves 4

- 1 pkt MAGGI Sweet Chilli Chicken Mix
- 1/2 cup (125mL) water
- 2 tsp oil
- 400g skinless chicken breast fillet, thinly sliced
- 1 carrot, cut into strips
- 1 red capsicum, cut into strips
- 3 spring onions, cut into 1 cm pieces

Step 1: Combine recipe mix and water. Set aside.

Step 2: Heat oil in a large pan; add chicken and brown. Add carrot and capsicum; stir fry 2 minutes.

Step 3: Add sauce mixture and spring onions. Bring to the boil, then simmer 30 seconds or until chicken is cooked. Stir constantly.

Meal preparation cuts into valuable recreation, work, training or study time. Meals need to be quick and easy to prepare.

With a packet of MAGGI Recipe Mix you can create a meal in minutes. Stir-fry cooking, like this Sweet Chilli Chicken recipe is not only quick, it is versatile as well. Just by changing the vegetables or the meat, you can create a different meal each time. Better still, it is nutritious. To create a winning meal choose from lean cuts of meat, plenty of vegetables, and boost the carbohydrate with noodles, rice, pasta or potatoes.

You'll find a big selection of recipe mixes, including Vegetable Sensations in the MAGGI range, which will ensure you are never short of a tasty, fast & nutritious meal idea.

www.maggi.co.nz



Nestlé

Good Food, Good Life

Special Issues



Triathlete



Q: I have a short triathlon (300m/8km/2km) on the weekend at 4pm. What should I eat for lunch on the day and when should I eat it?

A: Start the day with a breakfast which provides carbohydrate. Cereal, toast, fruit and a drink is a suitable option. Follow this up with lunch at about 12pm. You might like to have a meal along the lines of sandwiches with lean meat and salad, or toasted sandwich plus a milkshake, or pasta with tomato sauce or spaghetti on toast. At about 2pm, have a light snack such as a cereal bar, banana or honey sandwich to top up your carbohydrate levels and prevent you feeling hungry. Remember to have fluid (water, sports drink, cordial, juice) with these meals and snacks.

Cyclist



Q: What are some good foods to take on long training rides?

A: On long training rides, you need foods that provide carbohydrate, are easy to eat and travel well. Suitable options include bananas, plain sandwiches (e.g. honey, jam, Vegemite), cereal bars, sports bars (e.g. POWERBAR), fruit bars, dried fruit, jelly lollies and sports gels (e.g. POWERBAR GELS). Also remember to carry plenty of fluid. A sports drink is the best option but water, diluted soft drinks and cordial may also be used.

Cyclist



Q: I am an elite cyclist. Last weekend I suffered cramps and had to pull out. What causes cramps and how can it be prevented and treated?

A: The exact cause of cramps is still a puzzle to sports scientists. The most likely causes are dehydration, overexertion or a poor blood supply to the muscle. Some people believe that abnormal blood levels of potassium, magnesium or calcium may cause cramps but current research suggests that this is unlikely.

The following tips may help to prevent cramps:

- Drink plenty of fluid while exercising. Begin each session hydrated by drinking with meals and snacks leading up to the session. Have a large drink (300-600 mL) immediately prior to commencing exercise. This primes the stomach and improves stomach emptying during exercise. Begin drinking early during exercise and drink regularly (every 10-20 minutes). Sports drinks are the best option.
- Stretch before and after exercise.
- Wear comfortable, loose clothing and optimise your biomechanics.
- Acclimatise to hot weather to help minimise dehydration.

For more information

It can be a great idea to see a sports dietitian for individual advice and information. Check your yellow pages or contact Sports Science New Zealand, (04 916 2445, or web site below) or Millennium Institute of Sport & Health (09 477 2000 or www.institutesporthealth.org.nz).

RECOMMENDED RESOURCES

Books and websites

- *Eat to Compete*
J. Pearce 1999 (Reed Publishing)
- *The Complete Guide to Food for Sports Performance*
L. Burke 1995 (Allen & Unwin)
- Jeni Pearce & Associates
www.healthydiet.co.nz
- New Zealand Dietetic Association
www.dietitians.org.nz
- Sports Science New Zealand
www.sportscience.org.nz
- Australian Institute of Sport
www.ais.org.au/nutrition
- *Eat to Compete Cookbook*
J Pearce 2000 (Reed Publishing),
- *Quick Food for the Heart*
G Gouley 1999(National Heart Foundation)
- *Survival for the Fittest*
L Burke et al. 1999 (Australian Institute of Sport)
- *Survival from the Fittest*
L Burke et al. 2001 (Australian Institute of Sport)
- www.nestle.co.nz
- www.nzbeeflamb.co.nz

Sports images (excluding those in advertorials) are supplied by the Australian Sports Commission, Australian Institute of Sport, Department of Sports Nutrition and featured athletes. Sports image on page 29, courtesy of Randy Stenglein.

To order further copies of *A Winning Diet*, contact Nestlé New Zealand Limited on 0800 830 840 or www.nestle.co.nz

Millennium Institute



The Millennium Institute of Sport & Health, is New Zealand's first true multi-sport high performance sports Institute and is a centre of excellence in community health, recreation and fitness.

The Millennium Institute of Sport & Health provides...

A pathway for people to reach their potential from the grass-roots participant through to the high performance sports achiever.

A commitment to coaching at all levels from community level through schools, to club, regional, national and the highest of international levels. Good coaching has to be the cornerstone of any sports programme and the Institute is making a strong commitment to coaching across all levels.



Tomorrow's sports solutions – the Institute is developing solutions with local, regional, and national sports groups to achieve improved coaching, management funding and marketing services.

Development and deliver of national fitness, personal health and exercise programmes.

World Class Training Destination

Based at Sovereign Sports Supercentre on Auckland's Northshore, the Institute provides New Zealand's most complete sport training and environment.

Featuring state-of-the-art high performance training facilities, comprehensive sport science, sports medicine and rehabilitation services, the Institute offers New Zealand's elite sportspeople access to opportunities never before available to them on one site. As part of the NZ Academy of Sport and as such providing services to NZ's 'carded' athletes, this complete training and support destination is focussed on producing sporting success at the highest of world levels.

The training facilities include:

- 50m Olympic pool
- Cardio and strength training
- Indoor and outdoor athletics tracks
- Sports specific areas

These are further complemented by:

- Function and conference areas
- Café Nescafé
- Finish Line bar and bistro



The on-site 30 Room accommodation Lodge provides a world class training camp environment for any group or team from school age through to national and international teams. Recent guests range from corporate groups to the All Blacks.



Improving the Personal Health and Well Being of all New Zealanders

The Millennium Institute of Sport & Health is committed to improving the personal health and well being of all New Zealanders. Consequently, national and regional health, fitness and sports initiatives are under development.

These initiatives, beginning their roll-out in 2002, are a mix of fun, education and skills learning, with lifestyle and health messages being an integral part of each programme's resources.

Sports Medicine and Health Services

Also at the Institute is the HealthZone headed by Dr John Mayhew (Medical Director for the NZRFU and Medical Adviser for the "All Blacks" and David Abercrombie (physiotherapist for Team New Zealand and former physiotherapist for the All Blacks).

Jeni Pearce (one of New Zealand's leading sports dietitians and nutritionists) fronts the nutrition team and leading GP Dr Lynne Coleman provides a complete community GP service complemented by an on-site pharmacy.



The Institute looks forward to meeting the future challenges for health and sporting excellence, and helping you to 'be the best you can be'.

Contact Details

For further information contact:

[Millennium Institute of Sport & Health](#)
Sovereign Sports Supercentre

17 Antares Place

North Shore City

PO Box 302 145

North Harbour 1330

www.instituteofsporthealth.org.nz

Telephone

General Enquiries +64 9 477 2000

[Lodge and Conference Bookings](#)

0800 11 11 25



 Nestlé Foundation Sponsor of the Millennium Institute of Sport & Health

Nestlé, helping to provide good food for good living and proud to bring you *A Winning Diet*

For further information or to order additional copies of *A Winning Diet* contact:

Nestlé Consumer Services on 0800 830 840

www.nestle.co.nz

Nestlé New Zealand Limited ISBN 0-473-08674-3 Printed 2002