

Welcome

Welcome to the Spring edition of Nutrition News.

We kick off this edition with a feature on breakfast and why eating it is so important. We also provide some quick and easy brekkie ideas.

We take an in depth look at vitamins and minerals—the different types, their function in the body, the best food sources, and factors that determine how much you need.

Our regular Nutrition Watch section tells you which fruits and vegies are in season, and what food and health events are on during Spring. We also explore the nutritional benefits of the 'new' superfood—quinoa.

Sacha, Shelley & Chrystal

Simplot Nutrition Team
nutrition@simplot.com.au

Inside this ISSUE

Breakfast Benefits	1
Vitamins & Minerals	2
Nutrition Watch	
- What's On ?	4
- Did you Know?	4
- What's in Season?	4
- What is Quinoa?	4

Start the day with breakfast

Get a great start to the day by taking time to have brekkie.

The word 'breakfast' literally means to 'break the fast', or the first meal of the day. Many nutritionists believe that breakfast is the most important meal of the day, yet many of us do not eat it regularly or skip it altogether.

Why is breakfast so important?

It is thought that eating a healthy breakfast helps you make better food choices later in the day. People who skip breakfast are more likely to snack on less nutritious foods during the day which can contribute to weight gain.

Three more reasons to eat breakfast:

- 1. Gives you energy to get going and boosts your nutrient intake.** Breakfast refuels your body providing essential nutrients to keep your energy levels up throughout the day.¹ Healthy breakfasts such as bread, cereals, milk, yoghurt and fruit provide carbohydrate, fibre and calcium. Many cereals are also fortified with important vitamins and minerals.
- 2. Boost your metabolism.** Breakfast boosts your metabolic rate, meaning you burn kilojoules more efficiently which helps with weight control.
- 3. Improve your mood.** Eating breakfast can enhance alertness, concentration, mental performance and memory.¹

Make time for breakfast

Some common reasons for skipping breakfast include not having enough time, tiredness, sleeping in (hitting the snooze button too many times!) and lack of breakfast foods in the house. Does this sound like you? Well, here are some quick and easy healthy breakfast ideas:

- ◆ Wholegrain or high fibre cereal with low fat milk (hot or cold) topped with fresh, canned, frozen or dried fruit.
- ◆ Fresh fruit and low fat yoghurt with wholegrain toast.

- ◆ Raisin toast spread with ricotta or cottage cheese and a piece of fruit.
- ◆ Wholemeal muffins topped with tomato and reduced fat cheese.
- ◆ Wholemeal or wholegrain toast with a variety of toppings such as reduced fat cream cheese, avocado, baked beans, tomatoes, nut spread and a piece of fruit.
- ◆ A smoothie made from low fat milk, fresh fruit, low fat yoghurt and honey.

Banana Smoothie



Ingredients:

- 1 banana, roughly chopped
- 1 cup low fat milk
- ¼ cup low fat natural yoghurt
- 1 tablespoon honey
- 1 tablespoon oat bran or wheat germ

Method:

Add all ingredients to a blender and blend until smooth. Serve in a tall glass.

Tip: Add the fruit of your choice.

Per Serving: Energy 1,600kJ, Protein 19.5g, Fat 1.5g, Saturated Fat 0.5g, Carbohydrates 69.8g, Sugars 61.5g, Fibre 4.0g, Sodium 202mg.

If you're not in a rush in the morning, try these simple suggestions:

- ◆ Poached or boiled eggs on wholegrain toast with a glass of fruit juice.
- ◆ Omelette with added vegetables such as onion, mushrooms, spinach and tomato.
- ◆ Pancakes topped with fruit and low fat yoghurt.

Reference:

1. Mathews, R., Importance of Breakfast to Cognitive Performance and Health, Perspectives in Applied Nutrition, Volume 3, Number 3, 1996, pages 204-212.

Vitamins and minerals

Vitamins and minerals are vital for life. Despite their importance, however, the human body is not equipped to produce all the vitamins and minerals it needs to function. Instead, these nutrients must be obtained from food.

Unlike macronutrients (carbohydrate, fat and protein), vitamins and minerals are required by the body in relatively small amounts, and as such, they are known as *micronutrients*. It is important to make sure your diet provides the right amount of micronutrients—too much or too little can lead to illness and disease over time.

Vitamins and minerals have many different roles within the body: they assist growth and development, they help the body produce energy from food, they support immune, reproductive and nervous function, and much more.

Of the 26 micronutrients required for good health the human body can produce three of these itself: vitamin D is manufactured when skin is exposed to sunlight, and vitamin K and biotin are made by bacteria in the intestines. All other micronutrients must be supplied by diet.

Types of vitamins and minerals

Vitamins are classified as either *water-soluble* or *fat-soluble* according to the body's ability to store them. Water-soluble vitamins (biotin, folate, vitamin C and the B-group vitamins)

are not able to be retained for any significant length of time, and so must be replenished regularly. Fat-soluble vitamins on the other hand, can be stored for months in the body's tissues and called upon when needed. Although it is also important that fat-soluble vitamins are eaten daily, excessive intake (e.g. from supplements) can be toxic because of the body's limited ability to excrete them.

Minerals are classified into two groups: major minerals and trace minerals. As the names suggest, major minerals are required by the body in larger amounts than trace minerals.

Recommended intakes

In Australia, the Nutrient Reference Values (NRVs) specify the amount of vitamins, minerals and other nutrients that should be eaten each day to meet nutrition needs. The NRVs also specify levels of intake that may assist in the prevention of chronic diseases such as cancer and heart disease, and levels above which toxicity may occur.

Times when you might need more

Nutrient needs vary according to factors such as age, sex, activity level and health status e.g. requirements generally increase during pregnancy or illness. At times such as these, additional needs can be met through increased intake of

WATER SOLUBLE VITAMINS

VITAMIN	FUNCTIONS	BEST FOOD SOURCES
Thiamin	Helps convert carbohydrate into energy	Pork, liver, meat, chicken, legumes, peanut butter, wholegrain breads, milk, eggs
Riboflavin (B2)	Breaks down protein and glucose	Milk, yoghurt, cheese, meat, chicken, fish, dark green leafy vegetables, wholegrain breads and cereals
Niacin (B3)	Energy metabolism	Meat, chicken, fish, dark green leafy vegetables, wholegrain breads and cereals
Pantothenic acid (B5)	Energy metabolism, hormone and cholesterol production	Meat, chicken, fish, legumes, wholegrain cereals
Pyridoxine (B6)	Breaks down carbohydrate for energy and protein for body functions	Meat, wholegrain cereals, dark green leafy vegetables, potatoes
Cyanobalamin (B12)	Production of red blood cells, nerve function	Milk, eggs, meat, chicken, fish
Folate	DNA and red blood cell formation	Dark green leafy vegetables, meat, fish, chicken, eggs, wholegrain cereals
Biotin	Converts protein into glucose	Organ meats, egg yolk, legumes, nuts
C	Forms collagen (connective tissue for muscles and bones), assists iron absorption, boosts the immune system	Citrus fruits, strawberry, rockmelon, tomato, broccoli, raw green vegetables

FAT SOLUBLE VITAMINS

VITAMIN	FUNCTIONS	BEST FOOD SOURCES
A	Good for eyesight, skin, bones and teeth	Liver, kidney, egg yolk, dark green leafy vegetables, yellow and orange fruit and vegetables
D	Calcium absorption, formation of bones and teeth	Fish liver oils, egg yolk
E	Acts as an antioxidant to protect cells from damage	Margarines, vegetable oils, wholegrains, legumes, nuts, dark green leafy vegetables
K	Controls blood clotting	Dark green leafy vegetables

Vitamins and minerals

micronutrient-rich foods, inclusion of fortified-foods in the diet, or supplement use.

You may need to boost your micronutrient intake if you are planning pregnancy (folate, iodine), pregnant or breast-feeding (most vitamins and minerals), vegetarian (B12, calcium, iron, zinc), an athlete (iron, B-group vitamins) or elderly (vitamin D if sun exposure is reduced; B6, E, zinc for decreased immune function; B12, folate, calcium, iron for reduced absorption).

Factors that affect absorption

Diet is not the only factor which determines micronutrient levels. Vitamins and minerals must be absorbed by the body before they can be used effectively. Take up of these nutrients can sometimes be reduced by illness, medication or interaction with other food substances. For example, conditions which affect digestion such as diarrhoea, inflammatory bowel diseases, coeliac disease and liver disorders can reduce absorption, as can medicines such as laxatives, aluminium antacids, diuretics and some steroids. Caffeine and fibre in foods can decrease absorption of iron, calcium, zinc and copper when eaten at the same time. Other foods can enhance absorption, such as vitamin C, which increases iron uptake when eaten at the same meal.

Cooking effects

Vitamins in food can be destroyed by exposure to heat, air, water and light. Therefore, the most nutritious foods are usually ones that have undergone minimal processing and storage. Fresh produce should be stored in a cool, dark place to minimise nutrient losses, or better yet, picked straight from the garden and eaten raw or cooked fresh.

Mineral losses can occur when cooking foods in water (e.g. boiling). To reduce losses, use cooking methods which require less water (e.g. steaming, microwaving).

Foods vs. supplements

Your body only needs small amounts of vitamins and minerals each day and these can generally be supplied by eating a balanced diet. However, some population groups are at greater risk of micronutrient deficiency, including pregnant or breastfeeding women, alcoholics, smokers, drug users, chronic dieters, vegetarians, individuals with food allergies and malabsorption conditions, and the elderly.

People who's nutritional intake is inadequate may benefit from the use of vitamin and mineral supplements, however, they should never replace a nutritious diet. Micronutrients in food are generally utilised by the body more effectively than synthetic forms found in pills.

MAJOR MINERALS

VITAMIN	FUNCTIONS	BEST FOOD SOURCES
Calcium	Formation of bones and teeth, assists blood clotting and nerve and muscle function	Milk, yoghurt, cheese, spinach, sardines, canned salmon with bones, almonds, tofu
Magnesium	Energy production, muscle contraction, formation of bones and teeth	Wholegrains, spinach, bran, red meat, legumes, nuts, sunflower seeds, sesame seeds, tofu
Phosphorus	Growth, formation of bones and teeth, energy metabolism	Dairy products, oats, red meat, poultry, seafood, legumes, nuts, sunflower seeds
Potassium	Keeps body fluid levels in balance, muscle and nerve function, glucose storage	Avocado, banana, potato, wholegrains, asparagus, tomato, spinach, oranges, rockmelon, dairy products, red meat
Sodium	Keeps body fluid levels in balance, muscle and nerve function, glucose storage	Salt, cured meats, some canned and processed foods
Sulphur	Formation of amino acids, hormones and connective tissues, carbohydrate metabolism	Bean sprouts, leafy green vegetables, raspberries, dairy products, red meat, egg yolk, chicken, seafood, legumes, nuts

TRACE MINERALS

VITAMIN	FUNCTIONS	BEST FOOD SOURCES
Chromium	Blood glucose control	Potato, broccoli, green beans, tomato, apples, banana, grapes, oranges, red meat, turkey
Copper	Red blood cell formation, healthy bones and teeth, heart and nervous system function, skin, hair and eye pigmentation	Wholegrains, seafood, nuts, sesame seeds
Fluoride	Resistance to tooth decay	Tap water (not bottled water)
Iodine	Formation of thyroid hormones which regulate metabolism	Table salt
Iron	Transports oxygen in the blood	Red meat, egg yolk, fish, chicken, legumes, spinach, dried fruit, tofu
Selenium	Protects cells from damage, immune and thyroid function	Fish, shellfish, poultry, brazil nuts, brown rice, wheatgerm, wholemeal bread
Zinc	Immune function, enzyme and hormone production, healthy skin and eyes	Dairy products, red meat, eggs, poultry, shellfish, nuts, soy beans

What's on?

Fruit 'n' Veg Week

7th—11th September

Join schools in promoting and celebrating fruit and vegetables.

www.healthy-kids.com.au

National Stroke Week

14th—20th September

Think F.A.S.T. Act FAST!

Can you recognise the early warning signs of stroke?

The **FAST** test is an easy way to recognise the signs of stroke and take action. It involves asking three simple questions:

- **Face** – Check their face. Has their mouth drooped?
- **Arms** – Can they lift both arms?
- **Speech** – Is their speech slurred? Do they understand you?
- **Time** – Time is critical. If you see any of these signs, call **000** now!

www.strokefoundation.com.au

Walk to Work Day

2nd October

You can be a Walking Class Hero by simply walking all or part of the way to work. Use public transport and get off the bus, train, tram or ferry a few stops earlier and walk the rest of the way. Or take a half-hour walk at lunch-time. And where possible, walk up stairs.

www.walk.com.au

National Nutrition Week

11th—17th October

Nutrition Week Activities this year will continue to focus on preparing and sharing food. Whether at home, school or work, Nutrition Australia wants all Australians to appreciate the value in taking time to enjoy healthy meals together.

www.nutritionaustralia.org

Did you know?

Stroke is Australia's second single greater killer after coronary heart disease.

- In 2009, Australians will suffer around 60,000 new and recurrent strokes—that's one stroke every 10 minutes.
- Close to 20 per cent of all strokes occur in people under 55 years of age.

What's in season?



Fruit

Apples, Avocados, Cantaloupes, Grapefruit, Melons, Kiwifruit, Lemons, Mandarins, Oranges, Passionfruit, Paw paws, Pears,

Vegetables

Artichokes, Asparagus, Beans, Bean shoots, Beetroot, Broccoli, Cabbage, Carrots, Cauliflower, Cucumbers, Endive, Leeks, Lettuce, Onions, Mushrooms, Potatoes, Pumpkin, Rhubarb, Snow peas, Spinach, Sweet potato, Tomatoes, Zucchini

What is...

Quinoa ?

History

Pronounced "keen-wa", quinoa is a tiny seed used like a grain that originated from the Andes mountains of South America. It was a staple of the ancient Inca civilisation who called it the "mother grain" and considered it a sacred food.

Uses

Quinoa has a light, fluffy texture when cooked and can be substituted for almost any grain in most recipes. Quinoa can be eaten boiled like rice, or used in salads, stews, soup and porridge. Quinoa flour can be used to make pasta and baked goods such as bread.

Nutrition

Quinoa is gluten free, high in protein, fibre, magnesium, zinc and copper, and contains the vitamins pantothenic acid, B₆, folate and biotin.

Cooking

Before cooking, quinoa must be rinsed until the water runs clear in order to remove the saponins (bitter resin-like coating).

To cook quinoa, add 200g to 500mL water, bring to the boil, then reduce heat and simmer for about 15 minutes. Fluff gently with a fork and serve with vegetables, meat or seasonings. Serves 4.

