

# A guide to vegetarian diets

## in children

To grow and develop normally, children need to eat foods from all of the food groups such as breads and cereals, vegetables, fruits, meat and meat alternatives (foods rich in protein, Iron, Zinc and Vitamin B12) and dairy foods.

To avoid missing out on important nutrients, meat, chicken, fish and eggs need to be replaced with foods that will provide protein, vitamins and minerals. Planning is needed to make sure they eat a balanced diet.

### What is a vegetarian?

We usually think of a vegetarian as someone who does not eat meat, but there are a number of different types of vegetarians:

**Lacto-ovo** vegetarians avoid meat but include eggs, milk and dairy products.

**Lacto-vegetarians** avoid meat and eggs, but include milk and dairy foods.

**Vegans** avoid all animal foods.

### What nutrients are important for the vegetarian child?

#### Protein

Plant foods do contain protein but it is not as good as the protein found in animal foods such as dairy foods and eggs. Children need good quality protein for growth.

It is important to include protein foods two to three times per day to provide an adequate intake of protein. Some protein foods from plants are:

- > tofu
- > calcium fortified soymilk (eg. So Good)
- > lentils (eg 3-bean mix, baked beans, chickpeas and dahl)
- > nut butters.

#### Energy

Vegetarian food choices are often bulky and filling. Children have little tummies and vegetarian meals that include a lot of cereals and vegetables fill them up quickly. They may not eat enough food to give them energy to grow.

Children can get enough energy by eating regular meals and snacks. Foods that contain energy are:

- > dairy products
- > avocado
- > calcium fortified soymilks
- > margarine and cooking oils
- > eggs
- > breads and cereals
- > nuts and seeds
- > fruit and vegetables

Foods high in sugar and fat (eg lollies, chocolate, chips and cakes) are often low in nutritional value and should not replace nutritious meals and snacks.



## Iron

We need iron to carry oxygen around our bodies where it is used for energy. There are two types of iron in food:

**Haem iron** – found in red meats, seafood and poultry.

**Non-haem iron** – found in:

- > legumes
- > wholegrain breads and cereals
- > green leafy vegetables
- > nuts and seeds
- > eggs
- > dried fruits
- > breakfast cereals with added iron.

Haem iron is better absorbed by our bodies than non-haem iron. Including foods rich in vitamin C can help absorb non-haem iron (see *All about Iron in Food* factsheet).

## Vitamin C

We can help our bodies absorb non-haem iron by eating vitamin C rich foods with our meals.

Sources of vitamin C are fruits and vegetables. Ways to pair them are:

- > fruit with breakfast cereal
- > fruit with sandwiches at lunchtime
- > vegetables or salad with legumes at dinner.

## Calcium

Calcium is needed for strong bones and teeth. The best sources of calcium are dairy products such as milk, cheese and yoghurt.

Plant sources of calcium can include soy milks and soy products such as tofu. Check that both soy milk and tofu are fortified with calcium. Look for 120mg of Calcium per 100ml of milk on the nutrition information panel.

Other plant sources include nuts and some green vegetables. Remember though that these will not be as well absorbed as dairy sources.

## Zinc

Zinc is used by the body to help provide energy. The richest sources of zinc include meats, eggs and dairy foods.

However plant based sources include:

- > wholegrain breads and cereals
- > nuts and seeds
- > legumes eg chickpeas, lentils.

## Vitamin B12

Vitamin B12 is needed to make red blood cells. Animal based foods are the best sources of vitamin B12. The B12 in plant foods eg mushrooms is in a form that our bodies cannot use.

Vegetarian sources include:

- > eggs
- > dairy foods

## Vegan sources include:

- > Marmite
- > So Good Soy milk

For vegans it is essential to include foods that are fortified with B12. A supplement may also be needed.

## Introducing solids

Solids can be introduced at around six months of age. The best foods to start with are an iron-fortified rice cereal and vegetables and fruits.

From six to seven months meat alternatives should be offered these can include:

- > pureed legumes
- > mashed tofu
- > yoghurts and cheese (grated and mixed into vegetables)
- > nut butters
- > eggs

## Toddlers

Toddlers need a variety of foods to grow. Although milk is a valuable source of many nutrients, too much milk can fill them up, meaning that they eat less.

To make room for the other foods, it is recommended toddlers drink no more than 500ml per day. Encourage your toddlers to drink from a cup.

Including protein foods at each meal is important for growth. Offer your toddler family meals such as vegetables, legumes, pasta, noodles, tofu and try to eat together at mealtimes.

## School children

Being at school is hard work! Healthy, nutritious snacks are important and should include foods from all of the five food groups.

Lunchbox ideas include:

- > fruit or dried fruits
- > boiled eggs, mini quiches or frittata
- > yoghurt
- > wholemeal sandwich or wrap with hummus or cheese and salad
- > hummus or guacamole with vegetable and cheese sticks
- > wholemeal wrap with peanut butter

## Teenagers

Teenagers seem to grow very fast! The more they grow, the more nutrients they need. Teenagers' nutrient needs are as much as adults and in some cases more! They actually need more calcium than adults. Teenagers are encouraged to eat to appetite from all of the five food groups including alternatives for dairy and meats for vegetarian teens.

## Where do I find the important nutrients?

Nutrient	Breads & Cereals	Vegetables	Fruits	Meat Alternatives			Dairy/Soy products
				Nuts & Seeds	Eggs	Legumes	
Protein	√			√	√	√	√
Fat				√	√		√
Carbohydrate	√	√	√			√	√
Iron	√			√		√	
Calcium		√		√			√
Zinc	√			√	√	√	√
Vitamin b12					√		√

### Remember

Whole nuts are *not* recommended for young children due to the risk of choking. Instead use nut/seeds butters eg peanut butter.

Protein, iron, calcium, zinc are better absorbed from animal foods.

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The original and educational content of this booklet has been reviewed by specialist Dietitian's at the Women's and Children's Health Network (WCHN), SA Health. For any matters relating to this resource, contact the WCHN Nutrition Department on (08) 8161 7233.

Food product information contained in this resource was up to date at the time of revision. If you are not sure about a food, check with the manufacturer

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