



A nutrition newsletter for families with children under five

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Welcome to the seventh edition of "Food Matters" a quarterly nutrition newsletter for families with children under five. We would like to hear your stories, concerns and what you would like to know more about. Contact the Health Information Centre, Women's and Children's Hospital on (08) 8204 6875. Childcare centres can obtain multiple copies by contacting TeethSmart on (08) 8295 2311 or fax: (08) 8294 6103.



## Iron for children under 5 years

by Nadia Cerro, Senior Nutritionist, Women's and Children's Hospital and Jo Meedinya, Nutrition Project Officer, Eat Well SA.

### Why iron?

Iron is an essential nutrient for good health. Iron is important for carrying oxygen around the body, growth, activity and fighting infection. Babies and children especially need iron because they are growing quickly.

### Which foods contain iron?

There are two different types of iron in food: one from animal products and the other from plant foods. The best sources of iron from animal products are red meats such as liver, beef and lamb. Other meats such as pork, chicken, turkey and fish are also good sources. Our bodies absorb iron from animal products much more readily than from plant sources.

Iron from plant sources is found in foods such as:

- ◆ beans and lentils
- ◆ pasta, bread, rice (especially wholemeal)
- ◆ iron-fortified and wholegrain breakfast cereals
- ◆ green vegetables, eg broccoli, cauliflower, cabbage, beans, peas
- ◆ peanut paste and sesame paste
- ◆ dried fruit.



Iron from plant sources is more readily absorbed if meat or foods containing vitamin C are included in the meal.

Vitamin C-rich foods include:

- ◆ capsicum, broccoli, cabbage, cauliflower and tomato
- ◆ kiwifruit, oranges, strawberries and rockmelon
- ◆ fruit juices.

### How much iron do children need?

The recommended dietary intake (RDI) for iron is 9mg for babies (aged 7-12 months) and 6-8mg for children (aged 1-11 years). Infants under 12 months receive their iron from breastmilk, infant formula, iron-fortified solid foods such as baby cereals and other foods.

*A baby's store of iron begins to deplete at about 4-6 months of age. Iron rich foods such as iron-fortified cereals and soft pureed meat should therefore be introduced into the diet at about 6 months.*

Child care centres play an important role in providing children with iron-rich foods. It is recommended that long day care centres provide foods containing half of the children's

iron requirement. This then leaves the other half of each child's requirements to be met at home or away from the care centre.

### An iron-rich day in the life of a 5 year old

*\*indicates foods that contain iron*

- ◆ **Breakfast:** 2 weetbix\* with milk and banana
- ◆ **Morning snack:** 1 slice of wholemeal bread\* with peanut paste\*
- ◆ **Lunch:** Shepherd's Pie\*, peas\* and carrots; small fruit yoghurt\*
- ◆ **Afternoon snack:** scone/pikelet
- ◆ **Dinner:** baked beans\* on wholemeal toast\* with cheese.

### Tips for meat meals

Some children can be fussy when it comes to eating meat, but here are a few handy tips:

- ✓ soft meat meals such as casseroles and curries are easy for children to manage
- ✓ mince meals are popular with children - bolognese pasta sauces, meatballs, burgers and Shepherd's Pie are good options
- ✓ Offer a variety of different types of meat and fish eg beef, lamb, pork, chicken, salmon and tuna.

## Mediterranean Casserole

(serves 4)

### Ingredients

1 tbsp olive oil  
1 medium eggplant, diced  
1 packet firm tofu  
1 small onion, chopped  
1 garlic clove, crushed  
1/4 cauliflower, broken into small florets  
1 medium zucchini, diced  
350ml vegetable stock or water  
50g uncooked pasta (eg shells)  
425g tinned tomatoes, chopped  
1 tbsp tomato paste  
50g black olives, chopped (optional)  
2 tbsp mixed chopped fresh basil and thyme (or 1 tsp dried mixed herbs)  
100g prepared legumes, eg broad beans, kidney beans, chickpeas, Three Bean Mix or a mixture



### IMPORTANT

- **If using the dried legumes:** follow the packet instructions for soaking and cooking, then measure out 100g.
- **If using fresh or frozen varieties:** use as they are.

### Method

1. Drain tofu, cut into 1cm cubes. In a non-stick pan, fry tofu and eggplant gently in the oil, until evenly browned. Remove from pan.
2. Add onion to the same pan and cook gently until softened. Add garlic and cook for a further minute.
3. Add remaining ingredients, the cooked tofu and eggplant. Simmer gently until pasta and vegetables are just cooked (about 7 minutes).
4. Season to taste and serve with wholemeal bread.

## Is he getting enough iron?

### Nutritionists from the Women's and Children's Hospital answer your questions.

*Our two and a half year old boy doesn't like eating red meat and we are worried he is not getting enough iron. What should we do?*

*Peter, Tea Tree Gully.*

At this age, children are often fussy eaters and your son's dislike for red meat may be temporary. Continue to offer your son small amounts of red meat at some meals, but do not force him to eat the meat if he refuses. Try different dishes such as soft beef hamburgers, tacos or spaghetti bolognaise, as these meals are often popular with children. Offer white meats such as pork, chicken and fish if your son prefers the taste of these foods.

It is also important to offer your son a wide range of breads and cereals, legumes, fruits and vegetables. These foods contribute an important amount of iron. It is a good idea to offer foods high in vitamin C, (eg orange juice or tomato), with these foods, as this will increase the absorption of iron by up to four times.

If you are still concerned, speak with your local accredited practising dietitian/nutritionist or paediatrician.

Tea and coffee can inhibit the absorption of iron from foods. Tea and coffee are not suitable for babies and children.



## What if my child does not eat meat or fish?

Children can eat a vegetarian diet, but it must be well planned to ensure they receive all the nutrients and energy they need for growth and good health. Removing meat from the diet and not replacing it with appropriate foods will mean the diet is not providing all the nutrients necessary. A wide variety of foods including legumes (eg baked beans, lentils), fruits, vegetables, ground nuts and seeds, wholegrain breads and cereals, and soy products are important in vegetarian eating. Key nutrients that are important when following a vegetarian diet include iron, calcium, zinc, vitamin B12 and protein.

A diet containing only vegetables, fruit, breads and cereals is not adequate. It is important to combine the above foods with protein foods such as dairy products, legumes, nut and seeds. Examples of combining these foods to make 'complete' meals include:

- ✓ macaroni cheese
- ✓ lasagne with tomato and cheese
- ✓ rice pudding
- ✓ baked beans on toast
- ✓ a lentil burger in a bun
- ✓ bean tacos
- ✓ stir-fry tofu and vegetables with rice
- ✓ peanut paste sandwiches.

*The SA Child Care Nutrition Partnership aims to promote good nutrition for all South Australian preschool children in child care. Partners include representatives from Child Care Associations, Department of Education, Training & Employment, TAFE, Gowrie Training Centre, SA Dental Service, childcare centre cooks, Nutrition Australia, Women's and Children's Hospital (Department of Nutrition & Food Services and Children's Health Development Foundation), Eat Well SA, Anti-Cancer Foundation, Community Health Services and Department of Human Services.*

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