

# Fact Sheet

(CHS\_FS\_GNA\_030)

## WHY DO YOU NEED IRON

### WHY CHILDREN NEED IRON

Iron is an essential trace element that is used by the body for many different functions. The following describe some of the more important roles of iron in the body.

- **Iron assists the transport of oxygen around the body**  
The haemoglobin in our blood has iron bound to it. The iron attracts the oxygen to the haemoglobin that carries it around our body. If our body lacks iron, less oxygen is supplied to our body, which can make it harder to concentrate, remember and learn, and may cause tiredness and irritability.
- **Iron helps fight infection**  
Iron is used within the immune system. The exact function and mechanism is not known but it is clear that iron deficiency can make a person more susceptible to infection.
- **Iron is used in energy production**  
The body uses iron-containing enzyme in the production of energy.

### IRON DEFICIENCY

The most common nutritional deficiency worldwide is iron deficiency. This is as much a problem in Western societies, as in developing nations. Lower socioeconomic status (SES) groups appear to be at greater risk than higher SES groups. Those at greatest risk of iron deficiency include:

- Infants aged 6 months to 2 years
- Adolescents
- Women of child-bearing age
- Athletes

### CHILD DEVELOPMENT & RISK OF IRON DEFICIENCY

Some reasons that infants are at greater risk of deficiency may include:

- Infants consume diets with a low iron content or poor iron availability.
- Some infants are born with decreased iron reserves (ie. Premature infants).
- A mother may be unwell during pregnancy, have a poor nutritional status, have a high incidence of infection, or may smoke or drink alcohol whilst pregnant.
- Some infants grow more rapidly and have excessive iron demands (ie. Low birth weight infants).
- Some infants may have increased iron losses (ie. through blood loss).

### RECOMMENDED DIETARY INTAKE OF IRON

< 6 Months	3mg	(formula fed)
	0.5mg	(breast fed)
7-12 Months	9mg	
1-3 Years	6-8mg	

Source: Royal Children's Hospital Department of Nutrition and Dietetics  
Last Updated: January 2005  
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## IRON IN FOODS

As infants are more susceptible to iron deficiency, the types of foods they eat are important. Infants need to be given foods that are rich in iron every day. Iron rich foods for infants include iron-fortified rice cereal, red meats, legumes, whole-wheat products and green leafy vegetables. Listed below is the iron content of some foods as well as some recipes suitable for young children.

### Iron content per 30 grams of food

Baby Meat Dinners	0.1 – 0.2mg
Fresh Vegetables	0.3mg
Fresh Meat	0.8mg
Infant cereal (dry)	15mg

### **Blended Meat** (suitable from 6 months)

½ cup of chicken, lean beef, veal OR lamb, finely chopped or minced

Place meat in a saucepan with enough water to cover. Simmer gently until meat is tender, and well cooked. Blend meat or press through a strainer.

### **Basic Casserole** (suitable from 9 months)

1 tsp oil  
100g lean minced lamb  
125g mushrooms, sliced  
2 carrots, diced  
1 capsicum, diced  
120g can tomatoes  
boiled rice

Heat oil in pan and fry mince. Add vegetables and tinned tomatoes. Simmer covered for 1 1/2 hours. Add rice and coarsely blend or mash.

### **Basic Mince Sauce** (suitable for toddlers)

2 tsp oil  
1 onion diced  
2 cloves garlic, crushed  
500g lean mince  
½ cup tomato paste  
400g canned tomatoes  
1 tsp sugar  
1 capsicum, diced  
½ cup chopped mushrooms

Heat oil, add onion, garlic and mince. Cook until mince is no longer pink. Stir in tomato paste and tomatoes. Add remaining ingredients and allow to simmer for 20 minutes. Serve with pasta, potatoes or rice and salad.

Source: Royal Children's Hospital Department of Nutrition and Dietetics  
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## REFERENCES

Easy iron-rich meals for babies 6-12 months, Nutrition Communications, Australian Meat & Livestock Corporation, Australia, 1997  
Easy iron-rich meals for toddlers, Nutrition Communications, Australian Meat & Livestock Corporation, Australia, 1997.  
Could you be iron deficient?, Nutrition Communications, Australian Meat & Livestock Corporation, Australia, 1997.  
Harris MF, Cameron B, Florin S, Iron Deficiency in Bourke Children, (Aust Paediatric J, 1988:24.45-4)

*Additional information on feeding infants and children:*

**Infant and Toddler Feeding Guide: Parent Information**, Royal Children's Hospital Department of Nutrition and Dietetics with the Community Child Health Service, 2002. Available from the Royal Children's Hospital.

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