



IRON AND ANAEMIA

What is Iron?

Iron is needed in the formation of Haemoglobin, which is in our red blood cells. It is important, as it carries oxygen around the body. In children, iron is also necessary for growth and brain development. Iron deficiency may also cause a delay in psychomotor development, which may be permanent

Without sufficient iron in the diet, *anaemia* may occur.

What are the symptoms of Iron deficiency anemia?

Some of the common symptoms may be:

- Dizziness
- Fatigue, lethargy
- Pale skin and fingernails
- Loss of appetite

What are the causes of Iron Deficiency?

In young children, iron deficiency is common because of their rapid rate of growth and sub-optimal eating habits during the transition from a mainly milk to solid food diet. In adolescence, which is also characterized by a large growth spurt and likely unbalanced eating pattern due to school commitments, teenagers are also at risk of having inadequate intake. Particularly, girls and women who have increased losses due to monthly menses, commonly have problems. Women who are pregnant may also require more iron due to increased blood flow.

Which foods contain Iron?

Two Types of Iron In Foods

Haem

easily absorbed by the body,
present in:

- Meat 
- Fish 
- Poultry 

Non-haem

less easily absorbed by the body, present in:

- Grains
- Dried fruits
- Vegetables
- Nuts & beans

- ✓ Enhance absorption by including Vitamin C
- ✗ Avoid tea and coffee within 1hour of mealtimes



IRON-RICH FOODS

Requirement: _____ mg/ d

BEST sources of iron: Meat and animal products



Beef
1 palm-size = 2.8mg



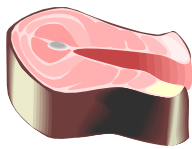
Lamb, mutton
1 palm-size = 2.1mg



Pork
1 palm-size = 1.2mg



Chicken
1 palm-size = 0.8mg



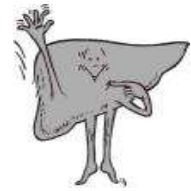
Fish
1 palm-size = 1.2mg



Ikan bilis
2 tablespoon = 0.6mg
Dried shrimps
1 teaspoon = 0.7mg



Sardines
1 fish = 1.8mg



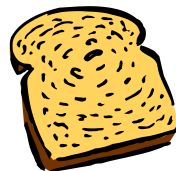
Chicken liver
1 piece = 5.1mg
Pork liver
2 slices = 3.1mg

Other sources of iron:

Cereals



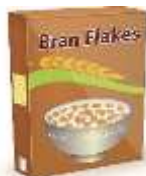
Brown rice
1 bowl = 1.0mg



Bread 1 slice
Enriched White bread = 1mg
Wholemeal Bread = 1.5 – 2.4mg
Raisin bread = 1.7mg



Iron-fortified infant cereals
1 tablespoon (dry) = 1.7mg



Branflakes
¾ bowl = 5.0mg

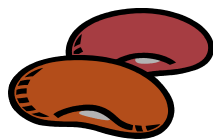


Fortified breakfast cereals
1 bowl = 2 – 3.6mg
Chocolate flavoured
cereals 2/3 cup = 4.2mg

Vegetables/ Legumes



Green veg 1 cup
e.g. Kang Kong = 1.6mg
Spinach = 1.5mg
Kai Lan = 1.3mg
Chye sim = 0.7mg



Red kidney beans
 $\frac{1}{2}$ cup = 2.6mg
Chickpeas
 $\frac{1}{2}$ cup = 2.4mg

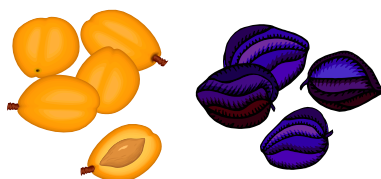


Tofu
1 small square = 1.9mg

Dried fruits, nuts & seeds



$\frac{1}{2}$ cup
Pistachio = 2.5mg
Cashew nut = 5.0mg



Dried apricots
10 halves = 1/2mg
Dried prunes
10 pieces = 2.2mg
Dried figs
10 pieces = 3.6mg



Raisins
3 tablespoon = 1.5mg



Red dates
10 pieces = 3.0mg
Black dates
10 pieces = 3.3mg



Dried longan
 $\frac{1}{2}$ cup = 3.5mg

Miscellaneous



Malt beverages
1 serving = 3.2 – 3.6mg



Peanut butter
2 tablespoon = 0.6mg



Dark chocolate
1 small square (30g) = 2mg

If you have any queries, please contact your dietitian _____ at Tel.: 6394 1646,
Mon – Fri, between 4 and 5.30pm.

Date: _____

Reference: USDA and Malaysia Food Composition Tables; Health Sciences Authority website/ Blood donation (accessed on 29/8/2017)