

# WHY WE NEED MORE IRON WOMEN



ONE IN 12 AUSTRALIAN WOMEN IS DEFICIENT IN IRON AND RECENT STUDIES SUGGEST HEALTH PROBLEMS CAN ARISE LONG BEFORE ANAEMIA OCCURS, WRITES MATT JOHNSON.

Feeling tired, finding yourself lacking energy and easily becoming short of breath? It may not be just going to work, going to the gym, and looking after the kids, the dog and the husband. You could be among the one in 12 women who suffer from Australia's most common nutritional deficiency: lack of iron.

Keep it up and you could become anaemic. The answer, however, is ridiculously simple: after you pump a little

iron, eat some. The body cannot manufacture iron but needs it to make haemoglobin, the substance that carries oxygen in the blood. If you fail to replenish your iron stores, you will eventually be unable to make enough haemoglobin to deliver sufficient oxygen to your cells. In this anaemic state you'll feel lethargic, be quick to fatigue and easily become short of breath.

But the anaemia suffered by between 2 and 5 per cent of Australian women is the result of iron depletion that may have taken months or years to develop, and some studies are now suggesting that iron deficiency – which affects nearly four times as many women as men – can have detrimental effects long before anaemia occurs.

The total amount of iron in our bodies is usually between three and four grams,

## RECOMMENDED DAILY IRON INTAKE

	Males	Females
8-11 years	6-8 mg/day	6-8 mg/day
12-18 years	10-13 mg/day	10-13 mg/day
adults	7 mg/day	12-16 mg/day (menstruating) 5-7 mg/day (non-menstruating)
pregnant		+10-20 mg/day

but by recycling the iron in the blood we only need about one milligram a day from the food we eat. Considering the average Western diet contains 12 to 15 milligrams of iron a day there shouldn't be a problem. So why is one in every 12 Australian women iron deficient?

For a start, iron is difficult for the body to absorb. A food can be high in iron but its availability to the body may be low. Iron from meat (called haem iron) is the best absorbed, with between 15 and 18 per cent of the iron contained in meats available to the body.

Iron contained in plants (non-haem iron) has a much lower bio-availability; usually less than 5 per cent of the iron in plants is absorbed. This is the main reason why an Australian General Practice study found 25 per cent of adult female vegetarians, three times more than in the general population, were iron deficient.

How much iron you absorb is also influenced by the other components of your diet. Combining iron containing foods with foods high in vitamin C can increase

the bio-availability of the iron by as much as 50 per cent. On the other hand, foods high in caffeine can reduce iron absorption.

The next problem is that a lot of us don't seem to be eating the "average Western diet". A national nutrition survey conducted in the mid 1990s found that 62 per cent of girls and 21 per cent of boys aged 12 to 15 did not meet the recommended daily intake (RDI) for iron.

RDIs usually have a wide safety margin, but the allowance with iron is not as great, so it is even more worrying that 22 per cent of girls and 4 per cent of boys did not even reach 70 per cent of the RDI. (Iron deficiency is more serious in children because iron plays a role in memory, concentration and learning.)

Among adults, it is estimated that between 20 and 40 per cent of women consume less than 70 per cent of the RDI of iron. Combine this deficit with the monthly loss of iron from menstrual bleeding and you have, according to Professor Jack Metz, consultant

haematologist at Dorevitch Pathology in Melbourne, the major cause of anaemia in Australia.

"Nearly all of the anaemias we see in young adults in Australia are the result of iron deficiency caused by a combination of increased requirement for iron that is not met by the diet," says Professor Metz. "In older persons anaemia is much more likely to be the result of another disease than due to a nutritional cause, but in young females it is almost always iron deficiency that is the cause.

"For women in their reproductive years, menstruation generates a significant loss, but there are two groups that are especially susceptible," he warns. "Adolescent females are at a high risk of becoming iron deficient because the onset of menstruation is coupled with rapid growth that increases the body's demand for iron."

The other high risk group are pregnant women; their bodies have to supply enough iron for their own blood, plus the extra demands of the placenta and the baby, but it is the former group that concerns Professor Metz.

Expectant mothers, he says, tend to become more aware of their nutritional

## IT'S NOT JUST IRON

Other forms of nutritional anaemia are rare but it is important women are aware of how they can be avoided.

"Women should take folic acid during pregnancy and lactation because those are the biggest drain on folate stores," warns Dorevitch Pathology's Professor Jack Metz. Folic acid is essential for brain and spinal cord development and is found in many foods, especially in green, leafy vegetables. Folic acid is also added to most grain products in Australia so developing a deficiency without an increased demand is rare.

A lack of Vitamin B12, a substance found exclusively in animal proteins, can also cause anaemia. "It's very uncommon in Australia, but people who rigidly exclude animal products (vegans) can be susceptible to anaemia caused by Vitamin B12 deficiency," cautions Professor Metz who suggests that strict vegans take a B12 supplement or consume foods fortified with B12. In fact the most common cause of B12 related anaemia is actually a disease called pernicious anaemia, in which the body stops making a substance that is needed to absorb vitamin B12 from the diet.

## IRON IS USED BY THE BODY TO:

1. Transport oxygen (haemoglobin).
2. Produce energy.
3. Assist normal function of the immune and central nervous systems.