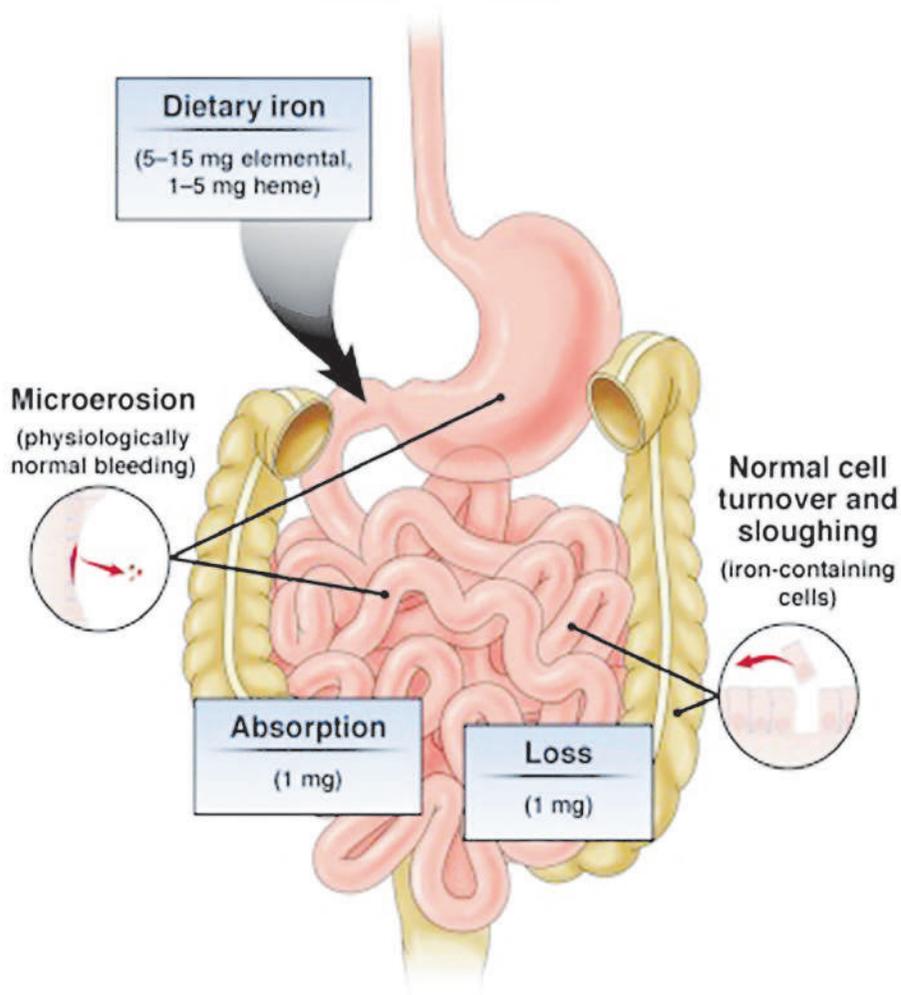
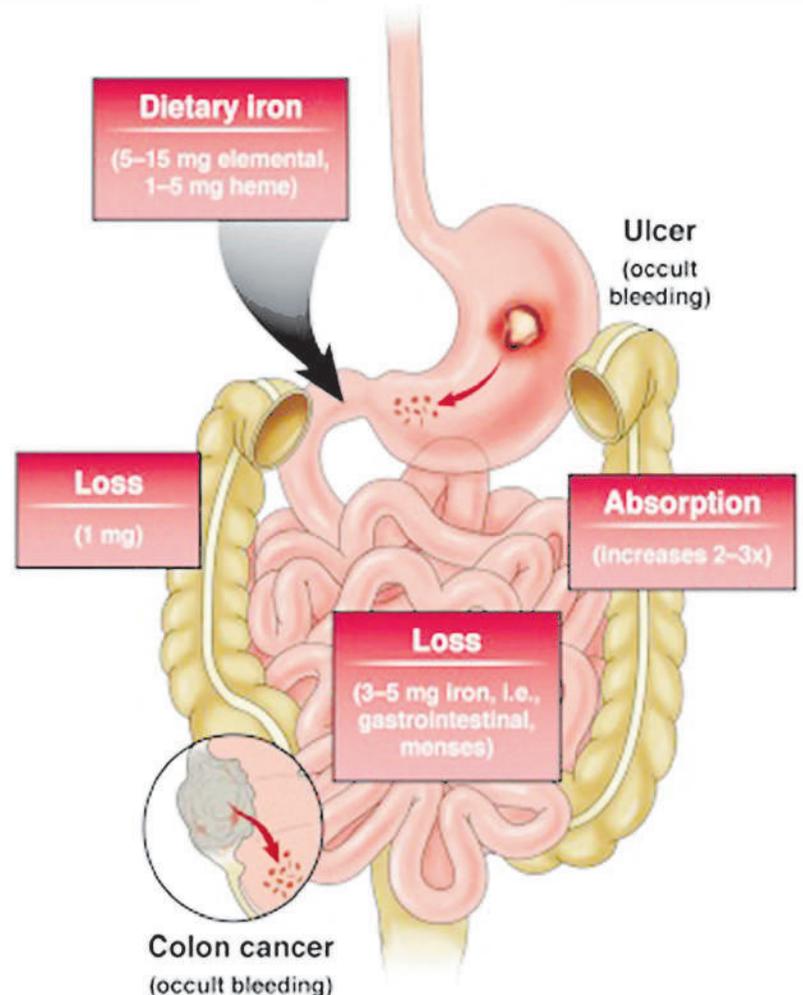




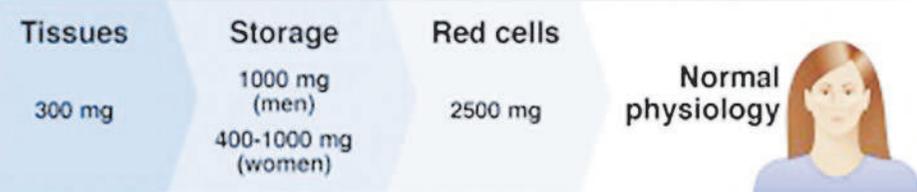
## Normal iron balance



## Pathologic iron loss



### Normal iron pool:



### Deficient iron pool:



Iron deficiency anaemia is because of insufficient iron. Without enough iron, your body can't produce enough of a substance in red blood cells that enables them to carry oxygen (haemoglobin). As a result, iron deficiency anaemia may leave you tired and short of breath. Picture: <https://www.gastrojournal.org>

## IRON DEFICIENCY ANAEMIA

# A nutritional deficit

IRON deficiency anaemia is the most common type of anaemia and it occurs when your body doesn't get enough iron which is not made in our body and must be absorbed from the food we eat in order to make red blood cells (erythrocytes) haemoglobin.

Haemoglobin is needed to carry oxygen to your organs and tissues and transport carbon dioxide from these organs and tissues to the lungs.

Having too few or abnormal red blood cells, or not enough haemoglobin, decreases the capacity of the blood to carry oxygen to all parts of the body.

Globally, the prevalence of anaemia continues to be a concern particularly in low income settings affecting mostly children and women of child bearing age.

In Fiji, the rate of anaemia revealed in the National Nutrition Survey (NNS) 1993 was 27.2 per cent which increased in NNS 2014 to 32.4 per cent.

The 2014 survey showed that 50 per cent of children under five have iron deficiency anaemia, and 25 per cent of children between five-11 years out of which 27.5 per cent were males and 24.2 per cent were females.

About 40 per cent of women are also anaemic because of iron deficiency.

This is quite alarming for our country as despite the abundance of fresh vegetables, fish and other naturally occurring iron rich foods yet the country suffers burden of this nutritional deficiency.

### Causes of IDA

There are many causes of IDA; it is usually caused by not eating enough iron rich foods, chronic blood loss, and or during increased iron demand such as pregnancy, childhood, vegetarianism, chronic diseases, heavy menstruation, stomach acids/gastrointestinal disorders, prolonged fasting etc.

Iron deficiency anaemia is preventable but is frequently overlooked and even though it rarely causes death; however, its impact on human health is significant resulting in an impaired quality of life, reduced immune system, delayed growth and development including organ damage and other serious health problems.

### Nutritional management of iron deficiency anaemia

Iron deficiency anaemia is the

### SIGNS AND SYMPTOMS

- ❑ Fatigue;
- ❑ Weakness;
- ❑ Shortness of breath;
- ❑ Headache, dizziness or light-headedness;
- ❑ Cold hands and feet;
- ❑ Inflammation or soreness of tongue;
- ❑ Brittle nails;
- ❑ Unusual cravings for non-nutritive substances, such as ice, dirt or starch;
- ❑ Poor appetite;
- ❑ Heart palpitations; and
- ❑ Hair loss.

most common form and is relatively easy to treat through dietary change.

Increasing the iron intake and enhancing the absorption by minimising the inhibitors and maximising the enhancers may be valuable for secondary prevention of iron deficiency anaemia.

Reduce the risk of iron deficiency anaemia by choosing iron-rich foods. Include iron rich foods such as red meat, poultry and fish.

Plant sources of iron include

dark green leafy vegetables, nuts and seeds, dried beans and peas and iron fortified bread and cereal products.

Eat a balanced, healthy diet that includes good sources of iron to prevent any deficiencies. Iron comes from both animal sources (haem iron) and plant sources (non-haem iron), haem iron is more easily absorbed by the body.

If iron intake is from plant sources only, more iron is needed as it is not as well absorbed. Combine vegetarian sources of iron with vitamin C in the same meal. Grow iron rich foods such as dark leafy greens (*bele*, watercress/*karamuo*, *tubua/chauraiya*, *rourou*, *saijan*) and pumpkin seeds.

Also, grow Vitamin C rich vegetables and fruits to team with iron sources such as tomatoes, chillis, capsicum, cumquats, limes, oranges and pineapples.

Fortunately, these ingredients also have lots of flavour so they make a great addition to iron-rich meals.

Avoid drinking tea, coffee, and cocoa around the time of consuming iron containing foods as tea can block the absorption of iron.

Dairy products and eggs are

very poor sources of iron and decrease iron absorption.

Iron deficiency anaemia is usually preventable and highly treatable.

A diet of fortified grains, legumes, nuts and seeds, and fruits and vegetables can provide for healthy iron balance across the life course!

■ Ritnesh Vishal Prasad is a clinical dietitian at Oceania Hospitals Pte Ltd. The views expressed are the author's and not necessarily of this newspaper.

