



Your Monthly Update

Dear Colleague

Welcome to the September 2011 newsletter from Pure Bio Ltd.

Did you know:

Macular degeneration can be avoided and even reversed by high intake of vitamin D, according to a new study. Betaine (found in fish, grains and spinach) and methionine (in poultry, fish and dairy) also helped to reduce the risk (*Ophthalmology*, 2011; doi: 10.1016/j.ophtha.2010.12.020)

The chosen topic for this month is:

Anaemia

Protocol Summary

Ranking	Nutritional Supplements	Botanical Medicine
Primary	Vitamin A Vitamin B12 Vitamin B2 (riboflavin) Vitamin B6 (P5P) Vitamin E	
Secondary	Copper Vitamin B1 (thiamine)	Acai
Other		Dong Quai Gentian Dandelion
<p>Primary – Reliable and relatively consistent scientific data showing a substantial health benefit.</p>		

Secondary – Contradictory, insufficient, or preliminary studies suggesting a health benefit or minimal health benefit.

Other – An herb is primarily supported by traditional use, or the herb or supplement has little scientific support and/or minimal health benefit.

Description

Iron deficiency anaemia is the most common nutritional disease in the world.

Anaemia literally means, "without blood", and is a deficiency of red blood cells, or the presence of abnormal red blood cells due either to reduced production, abnormal production, excess destruction, or blood loss.

Causes

- **Iron deficiency**
 - Most young children simply do not get enough iron in their diets. Heavy menstrual periods are another common cause of iron deficiency anaemia. Pregnant women also may become anaemic -- during pregnancy a woman's blood volume increases three times, boosting iron needs.
- **Vitamin B12 or folic acid deficiency**
 - Vitamin B12 deficiency anaemia produces oversized red blood cells, making it harder for the body to squeeze the red blood cells through vessels and. Vitamin B12-deficient red blood cells also tend to die off more quickly than normal cells. Vegetarians are at the greatest risk of not getting sufficient B12 in their diet.
 - Older people are at increased risk for vitamin B12 deficiency because they are more likely to have conditions that affect the body's ability to absorb vitamin B12.
But the most common cause of vitamin B12 deficiency anaemia is a lack of a protein called intrinsic factor, which is secreted by the stomach. Without intrinsic factor, vitamin B12 cannot be absorbed, leading to a state of pernicious anaemia. Treatment requires injections of B12, usually once a month that bypass the stomach by getting the vitamin directly into the bloodstream.
 - A deficiency of folic acid produces the same oversized red blood cells as a vitamin B12 deficiency. One of the most common causes of folic acid deficiency anaemia is insufficient dietary intake. Pregnant women are most at risk for folic acid anaemia because the need increases by two-thirds during pregnancy. Adequate folic acid intake is essential from the start of pregnancy because it protects against spinal defects in the foetus.
- **Vitamin C deficiency**
- **Vitamin E and B6 deficiency**
- **Thyroid disorders**
- **Alcoholism**
- **Lead Toxicity**
- **Infectious diseases such as malaria**

Symptoms

Symptoms of mild to moderate anaemia:

- weakness
- fatigue

- shortness of breath

Symptoms of moderate to severe anaemia:

- rapid heartbeat
- dizziness
- headache
- ringing in the ears
- pale skin (especially the palms of the hands), pale or bluish fingernails
- hair loss
- restless leg syndrome
- confusion

Symptom specific to severe vitamin B12 or folic acid deficiency anaemia:

- swelling of the mouth or tongue

Symptoms specific to pernicious anaemia:

- numbness, tingling
- depression and/or irritability
- memory loss

Dietary Changes

Establishing the source of the anaemia is crucial in order to then increase dietary intake of appropriate food groups. For example, green leafy vegetables are a good source of iron. Salmon and mackerel are good sources of Vitamin B-12. Black eyed peas, beans, and lentils are good sources of folate.

The following foods are a good source of both iron and vitamin B12 and should therefore be increased as a generalised dietary measure, whatever the source of the anaemia:

- apples, apricots, asparagus, bananas, broccoli, egg yolks, kelp, leafy greens, okra, parsley, peas, plums, prunes, purple grapes, raisins, rice bran, squash, turnip greens, whole grains, and yams.

Increasing foods that are high in Vitamin C will also improve the absorption of iron in the body.

Foods that are high in oxalic acid should be excluded from the diet, since oxalic acid interferes with iron absorption. This includes foods such as almonds, cashews, chocolate, kale, rhubarb, sorrel, spinach, Swiss chard and most nuts and beans.

Other foods that interfere with the absorption of iron include: beer, chocolate, dairy products, ice cream, soft drinks especially coke / pepsi, coffee and tea.

A tablespoonful of blackstrap molasses twice daily is recommended, as a good source of iron and essential B vitamins. For children, mix the molasses in a glass of milk or in their formula.

Do not take calcium, vitamin E, zinc, or antacids at the same time as iron supplements, as all of these interfere with iron absorption.

Juice Therapy daily is also beneficial, focusing on vegetables that are high in iron and blended with juices high in Vitamin C.

WARNING: *Iron is extremely toxic in large quantities. Excessive use of supplements can lead to iron overload, possibly resulting in abdominal pain, nutritional imbalances, digestive problems, or even in death, especially in children. Supplements pose a particular threat to people with the inherited disorder haemochromatosis. Always consult a qualified practitioner before commencing any treatment involving iron supplements.*

Nutritional Supplement Treatment Options

Deficiencies of iron, vitamin B12, and folic acid are the most common nutritional causes of anaemia. Although rare deficiencies of several other vitamins and minerals, including vitamin A, vitamin B2, vitamin B6, vitamin C, and copper, can also cause anaemia by various mechanisms.

Vitamin A - 10,000 to 25,000 IU daily

Vitamin B12 - 600 to 1,000 mcg daily

Vitamin B2 - 5 to 30 mg daily in divided doses

Vitamin B6 - 2.5 to 25 mg daily for three weeks, then 1.5 to 2.5 mg per day as maintenance therapy. Alternatively, 25 to 50mg daily of activated B6 (P5P)

Sideroblastic anaemia - **50 to 200 mg per day** - Sideroblastic anaemia refers to a category of anaemia featuring a build up of iron-containing immature red blood cells (sideroblasts). One type of sideroblastic anaemia is due to a genetic defect in an enzyme that uses vitamin B6 as a cofactor. Vitamin B6 supplements of 50 to 200 mg per day partially correct the anaemia, but must be taken for life.

Vitamin C – 250 to 1,000 mg daily, in divided doses. Vitamin C enhances the absorption of iron ingested.

Copper - **If deficient: 2 to 3 mg daily.** In cases of persistent iron-deficiency anaemia where there is also chronic inflammation, it is sometimes necessary to supplement first with copper before the person will respond to iron. Iron and Copper are direct antagonists.

Vitamin B1 - 10 to 20 mg daily. Rare genetic disorders can cause anaemias that may improve with large amounts of supplements such as vitamin B1.

Vitamin E - 800 IU daily. People with severe thalassaemia who receive regular blood transfusions become overloaded with iron, which increases damaging free radical activity and lowers antioxidant levels in their bodies. Some people with milder forms of thalassaemia may also have iron overload. Iron supplements should be avoided by people with thalassaemia unless iron deficiency is diagnosed. Preliminary studies

have found that oral supplements of 200 to 800 IU per day of vitamin E reduce free radical damage to red blood cells in thalassaemia patients.

Botanical Treatment Options

[Açaí](#) - Açaí contains iron (approximately 1.5 to 5 mg per 3.5 ounces of fruit) and has long been used traditionally to help treat anaemia.

[Dong quai](#) - This herb is rich in vitamins and minerals.

Chive - This vegetable is rich in vitamin C and iron.

[Gentian](#) - a bitter herb used traditionally for the treatment of anaemia. Gentian can be brewed into a tea or taken as a tincture.

[Dandelion](#) is also used by traditional herbalists to treat people with anaemia. It is very rich in vitamins and minerals.

Other herbs that are of interest to those suffering from anaemia include alfalfa, bilberry, burdock root, cherry, goldenseal, grape skins, hawthorn berry, horsetail, mullein, parsley, nettle, Oregon grape root, pau d'arco, red raspberry, shepherd's purse, watercress, and yellow dock root.

Caution: *Do not take goldenseal or Oregon grape root if you are pregnant. If you have a history of cardiovascular disease, diabetes or glaucoma, see your practitioner before taking any herbs.*

[Asian ginseng](#) ([Panax ginseng](#)) is useful as a general tonic to counteract anaemia induced fatigue. Dong quai may be prescribed for women with heavy menstrual flow. For anaemic patients with yellow complexion, a Chinese herbalist might recommend a combination of dong quai and Chinese foxglove root. For those with white complexion, they may recommend a combination of ginseng and astragalus.

For further information, contact:

Tracy S Gates

Director, PURE BIO LTD.

01403 730342

info@purebio.co.uk