



blood

It is widely acknowledged that blood is the essence of life, and healthy blood is vital to wellbeing. Naturopath Paul Keogh compares the Western biomedical understanding of blood to the traditional Chinese concept, and explains how Chinese Blood tonic herbs can be used alongside conventional nutritional approaches to help restore blood vitality and enhance energy levels.

Blood basics

In basic medical terms, blood is the fluid tissue that circulates in vessels throughout the body, carrying oxygen and nutrients to all cells, and removing waste and carbon dioxide for elimination. It serves many vital functions including immune defence, temperature regulation, and transport of hormones and other important chemical messengers.

Blood is composed of red blood cells, white blood cells, platelets and plasma (the fluid portion of blood), and makes up approximately 7-8 per cent of your body weight (the average adult has five litres of blood). Red blood cells (RBC) comprise 45 per cent of blood by volume, and contain the important protein haemoglobin. Haemoglobin is the iron-containing component of RBC that gives blood its red colour, and has the specific function of binding oxygen and carbon dioxide for transport to and from body cells. Red blood cells, like all blood cells, develop from stem cells in bone marrow and take seven days to mature to the point where they are released into the bloodstream. They survive for only 120 days in the circulation before they are broken down and the parts recycled. Fortunately for us though, RBC are being made continuously in our bone marrow, and mature RBC are released into our bloodstream at an astonishing rate of 2.5 million cells per second!

vitality & energy

Blood and iron

Optimal RBC function depends on adequate iron, yet iron deficiency is the most common single nutrient deficiency worldwide. The major symptoms caused by inadequate iron intake include fatigue, headaches, irritability, muscle weakness, breathlessness, lowered immunity and poor concentration. Visible signs such as pallor, poor hair growth or hair loss, brittle or ridged nails, and a blue haze of the sclera (whites of eyes) are also common. Some people are at higher risk of dietary iron deficiency including growing children, pregnant or breastfeeding women, the elderly, athletes and vegetarians. Poor digestive function, heavy menstruation and certain gastrointestinal conditions can also contribute to iron deficiency. Before assuming that you are iron deficient though, it is important to consult a health professional who will be able to advise you about blood tests to check your iron status. Other nutrients that are vital for optimal iron use and healthy blood include vitamins C, B12 and folate.

When dietary iron intake is inadequate, supplementation is the most effective way to replenish body stores and prevent deficiency. However, there are a myriad of iron supplements on the market and some are better quality than others. Iron (II) glycinate (also known as iron bisglycinate) is a relatively new but well researched form of iron, which is very easily absorbed and gentle on the digestive system. The compound is exceptionally stable and won't react with other nutrients or interfere with their absorption (eg. vitamin E and calcium). Consequently, iron (II) glycinate is well-tolerated and doesn't upset the stomach or produce constipation like some other forms of iron. Due to the lag time between iron supplementation and new RBC production, it can take a few weeks to begin to relieve symptoms of iron deficiency.

Blood in traditional Chinese medicine

In Chinese medicine terms, Blood – spelt with a capital B to denote the combined physical and energetic properties - functions to nourish and vitalise the whole body. Healthy Blood is characterised by a radiant complexion, lustrous hair, sharp senses, well-developed muscles and coordinated motor skills. However, to maintain Blood's free-flowing state another energetic force must work in harmony with it. *Qi* (pronounced "Chee") is the vital energy that invigorates Blood

to keep it circulating throughout the body. Blood and *Qi* have a very important relationship and are mutually dependent – *Qi* prevents Blood stagnation, and Blood nourishes *Qi*.

The Chinese concept of healthy Blood cannot be seen in isolation from the organs it nourishes. In fact, healthy Blood depends upon healthy functioning of the body's major organ-meridian systems: Heart, Spleen, Liver, Kidney and Lung. Specifically, the Heart governs the Blood and blood

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vessels, and pumps blood. The Spleen – working with the Stomach – generates Blood from food. The Liver stores Blood, and regulates circulating Blood volume. The Kidney stores *Jing*, which can transform into Blood, and strengthens Blood via its governance of the bone marrow and therefore blood cell production. The Lung generates and governs *Qi*, which leads Blood.

In Chinese medicine, disorders related to Blood fall into two main categories: Blood deficiency and Blood stagnation. Blood deficiency is characterised by pallor, lethargy, dizziness, poor memory and concentration, dry skin and hair, and brittle nails. It is interesting to note how these symptoms correlate to symptoms of dietary iron deficiency. Blood stagnation occurs when Blood flow is impeded, and is characterised by sharp pains or swelling. Symptoms vary depending what area of the body is affected. For example, Blood stagnation in the uterus can contribute to heavy or painful menstruation.

Chinese herbal medicine for blood vitality

Blood tonic herbs are used in Chinese medicine to nourish and strengthen (tonify) the Blood and to invigorate blood circulation eg. *Angelica polymorpha* (dong quai), *Paeonia lactiflora* (white peony) and *Codonopsis pilosula* work together. The latter also tonifies the *Qi* and together these herbs support the Liver, Heart, Spleen and Lung in their role to build and maintain healthy Blood. The addition of *Atractylodes macrocephala* (white atractylodes), *Poria cocos* (poria) and *Alisma orientale* (alisma) reinforce the *Qi* tonifying action of this formula, while providing functional support to the Kidney, Spleen, Heart and Lung.

Dong quai is a renowned Chinese herb that tonifies the Blood, activates Blood circulation and specifically supports the Heart, Liver and Spleen. It is used to treat states of Blood deficiency and stagnation. Research has found that dong quai may even improve blood iron levels, supporting its traditional use as a Blood builder. Menstrual symptoms associated with Blood deficiency (eg. painful or heavy periods) are also commonly treated with dong quai.

White peony nourishes the Blood and is traditionally used to treat Blood deficiency states. It works to regulate Liver function and tonify the Spleen. Studies have found white peony improves circulation and has immune regulating properties.

Codonopsis is used as a nourishing herb that reduces fatigue. It boosts *Qi* (vital energy) and strengthens the Spleen. Research has found it can increase RBC count and haemoglobin levels, and that it can reduce fatigue.

Being involved in so many essential functions, it makes sense to keep the blood as healthy and vital as possible. Chinese herbs can invigorate and nourish Blood, while reinforcing the effects of iron and other nutrients. They also improve digestion and may assist the body to assimilate iron.

Since iron supplementation alone does not always resolve the symptoms of low iron, the key to getting results may be to combine Chinese Blood building herbs along with a high quality form of iron. 

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