# Can Nutrient Deficiencies be Causes of Heart Failure... Written by Tessa Jupp RN

Most people imagine nutritious foods help people to improve heart conditions, but what if the **lack of specific vitamins and minerals** may be the **PRIMARY causes** of **Heart Failure** and are the only real treatment needed for them in some, if not many cases as well? A search of available data came up with the following:

**PALPITATIONS** (ie feeling your heart beating in your chest) can be **caused by** caffeine in coffee, sugar, bread, artificial sweetners, stress, extertion, hot baths, infection - but also by **deficiencies of Vitamins** B1, B12, C, carnitine, magnesium, potassium, iodine, omega-3 and too much thyroxine. So how do nutrients pertain to heart function?

## Magnesium

Atrial fibrillation is a heart cramp, and we know we need magnesium for cramps and to relax muscle. It reduces calcium excess in arteries, balances the beats keeping the heart rhythm steady, slows the heart to normal rate, maintains healthy circulation, prevents red blood cells from clumping, reduces blood pressure, works with and can correct potassium levels, corrects arrhythmias.

### Potassium

Potassium levels may be corrected by giving magnesium as well if low, (take both at same time - plus B1), regulates fluid in all cells and electrical impulses in heart cells, corrects abnormal fast beats, chest pain, dizziness, heart muscle weakness, lowers blood pressure. Ventricular fibrillation needs magnesium, potassium and Vit B1.

## Vitamin B1 (known as wet beri-beri)

One third of heart patients have been found to be low in B1. It is part of the structure of **blood vessels** and without B1 they **dilate and fluid leaks into the tissue**. This causes the pumping action of the heart to weaken, fluid congestion in the lungs and swelling in the abdomen, shortness of breath, **swollen ankles** and legs.

#### **Taurine**

Acts as a diuretic by keeping potassium and magnesium inside the heart cells and sodium out, normalises the electro-excitability of cardiac muscle cells enhancing the rhythm and ability to beat, relieves arterial spasm, lowers blood pressure, delays exercise enduced fatigue.

#### Carnitine

One particularly large and high quality study on heart failure and carnitine showed that, patients with congestive cardiac failure improved more taking carnitine than those who did not. And this was regardless of the causes of congestive heart failure. Other studies showed that carnitine was a major source of energy to the heart, was able to reduce ventricular enlargement, reduce heart muscle injury, arrhythmias and angina, **increase exercise tolerance**, **improve fatigue**, reduce high toxic free fatty acid levels by allowing its use as fuel for heart muscle.

**NB** Carnitine and Q10 taken together for 3 months or more can often alleviate heart murmurs.

#### Coenzyme-O10

Q10 levels reduce with age. Q10 needed for heart cells, 75% of those with weak hearts have severe Q10 deficiency, strengthens heart muscle to pump more effectively, decreases abnormal thickness of heart muscle making it easier to beat and more flexible, improves blood pressure, decreases death rate from heart failure. Q10 lowered by Statin drugs.

## Vitamin D

75% of people are D3 deficient. This lowers calcium levels in the blood causing weak heart muscle contraction and strength. Arteries become stiff and blood flow is poor. D3 allows the immune system to address infection that creates build-up of plaque in arteries. **Magnesium is needed for D3 to work.** D3 lowers blood pressure.

# Vitamin E

**Protects linings of blood vessels** from free radical damage, restores elasticity for beat pressure, stops clumping of red blood cells.

## Vitamin C

High doses of Vit C are needed for strong collagen. Without Vit C and

lysine, heart beating causes minute cracks in collagen of artery walls leading to plaque being deposited. **Vit C reverses calcification of arteries,** lowers cholesterol and blood pressure, inhibits clot formation

# Selenium

Usually **better to take Vit C & E with selenium**. It is needed for heart muscle strength and cures viral infections of the heart that cause cardiac myopathy.

## Fish Oil (Omega 3)

Harvard Medical School reports eating fish once a week **reduces heart attack risk by 52%.** Fish oil lowers chronic inflammation, slows the build-up of plaque in arteries, relaxes and opens blood vessels, reduces clotting by preventing stickiness in red blood cells, raises HDL and lowers triglycerides.

#### **Iodine**

Adequate stores of iodine needed for the heart to beat smoothly. Iodine deficiency can cause palpitations and arrhythmias. Iodine normalises heart beat rhythm.

# Vitamin B12

If B12 low, red blood cells do not mature remaining large. This causes irregular heavy beating of the heart. B12 with B6, Folate, B2, magnesium and zinc lowers homocysteine.

# Iron

Anaemia can cause palpitations, angina and heart murmur. Too much iron can trigger an irregular rhythm.