



## Your Monthly Update

*Dear Colleague*

Welcome to the October 07 newsletter from Pure Bio Ltd.

### Did you know. . .?

The high levels of the antioxidants in raspberries can help to combat the harmful effects of sunburn. Raspberries contain high levels of anthocyanins which have been shown to limit UVB damage. Research has shown them to be also effective when applied topically either before or after exposure to the sun.

Our topic for this month is:

## Stroke

Ranking	Nutritional Supplements	Botanical Medicine
Secondary	Potassium Vinpocetine	
Other	Folic acid (for high homocysteine only) Magnesium Tocotrienols Vitamin B12 (for high homocysteine only) Vitamin B6 (for high homocysteine only) Vitamin E	

**Primary** – Reliable and relatively consistent scientific data showing a substantial health benefit.

**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.

### The Facts:

- In the UK, stroke is the third leading cause of death, with heart disease first and cancers second. Stroke is the leading cause of serious, long-term disability in the U.K.
- Approximately 700,000 people suffer a stroke each year. 500,000 of these are first attacks and 200,000 are repeat strokes.
- 28% of people who suffer a stroke are under age 65.

- On average, someone in the U.S. suffers a stroke every 45 seconds. Every 3.1 minutes someone dies of one.
- Strokes kill more than 160,000 people each year and account for almost one out of every 15 deaths in the United States.
- About 47 percent of stroke deaths occur outside of a hospital.
- Women account for approximately 61.5 percent of stroke deaths each year.
- Within 30 days 8-12% of individuals with ischaemic strokes and 37-38% of those with hemorrhagic strokes will die.
- 22% of men and 25% of women will die within one year of an initial stroke.
- About 33 percent of stroke survivors will have another stroke within five years.
- About 4.7 million stroke survivors (2.3 million men, 2.4 million women) are alive today.

## Signs & Symptoms

- Sudden severe headache with no known cause
- Sudden weakness or numbness of the face, arm or leg on one side of the body
- Loss of vision or visual disturbances or dimness, especially if it occurs in only one eye
- Unexplained dizziness, loss of balance, unsteadiness or a sudden fall, especially if accompanied by any of the other symptoms
- Sudden confusion, slurred speech or difficulty speaking or communicating
- Unconsciousness

In addition to the common stroke symptoms that are seen in both men and women, women may also experience unique symptoms that aren't immediately identified as possible signs of a stroke.

The additional stroke symptoms that some women experience include:

- sudden face and limb pain
- sudden hiccups
- sudden nausea
- sudden general weakness
- sudden chest pain
- sudden shortness of breath
- sudden palpitations

## Dietary Modification

**1. Almonds** contain vitamin E, magnesium, protein, fibre, potassium, calcium, phosphorus and phytochemicals, that may protect against stroke and other diseases. New research suggests that almonds may help fight obesity and diabetes and may lower cholesterol and help block the absorption of both fat and carbohydrates.

**2. Apples.** In a study that lasted 28 years and included over 9,200 men, researchers concluded that those who ate the most apples had the lowest risk of stroke. The phytonutrients in apples have been associated with a reduced risk of stroke and many other diseases. Findings indicate that two apples a day or 12 ounces of apple juice also reduced the damaging effects of the "bad" LDL cholesterol.

### 3. Cinnamon

- ✓ A half teaspoon of cinnamon each day can reduce your stroke risk with these effects:
- ✓ Reduce blood sugar levels in non-insulin dependent diabetics and normalize blood sugar levels in non-diabetics
- ✓ Lower LDL-cholesterol and triglyceride levels
- ✓ Prevent blood clots
- ✓ Lower high blood pressure
- ✓ Promote and maintain weight loss
- ✓ Lower the risk for heart disease

- ✓ Your daily cinnamon can be sprinkled into coffee, tea, oatmeal, yoghurt or eaten on toast.

**4. Fish.** Individuals who eat a 3.5 ounce serving of fish, two to four times per week reduce their risk of a stroke by 27%, and five or more times a week by 52%. Fish contain omega 3 fatty acids that may help prevent the formation of blood clots.

**5. Oatmeal.** In numerous studies, oatmeal has been shown to lower cholesterol. Because it also slows down the absorption of carbohydrate and can prevent sharp rises in blood sugar, it can be beneficial for diabetics and also for controlling appetite.

**6. Strawberries** also contain phytochemicals, as well as essential vitamins, fibre and potassium. One serving - about eight medium strawberries - provides close to 10 percent of the daily value for potassium, which is important for maintaining a healthy blood pressure and may reduce the risks of hypertension and stroke.

**7. Tea.** A study of 550 men suggested that drinking about 5 cups of black tea per day reduced the likelihood of stroke by 69 percent. The flavonoids in teas make blood cells less prone to clotting, and they also act as antioxidants. In the 15 year study, men with a high flavonoid intake had a 73 percent lower risk of stroke. The men in the study got about 70 percent of their flavonoids from drinking black tea. (About 10 percent came from eating apples.)

**8. Dark Chocolate.** Dark Chocolate also contains flavonoids as well as magnesium. About one-third of a dark chocolate bar each day may reduce the risk of heart disease and stroke by half, new research suggests.

**9. Tomatoes.** Lycopene, the substance that makes tomatoes red, has been shown to reduce cancer risk. A new study suggests it may offer stroke prevention by making blood cells less sticky and reducing the risk of strokes from blood clots.

**10. Grapes.** Purple and red grapes in any form, including juice and wine, reduce stroke risk by lowering cholesterol and reducing platelet "stickiness" and therefore blood clots. A 16-year study of 13,000 people in Denmark has found that a daily glass of wine reduced stroke risk by 32 percent.

**Potassium** - Researchers have found an association between diets low in potassium and increased risk of stroke. People who take potassium supplements have been reported to have a low risk of suffering a stroke. Others have found an association between increased risk of stroke and the combination of low dietary potassium plus high salt intake. Increasing dietary potassium has lowered blood pressure in humans, which by itself should reduce the risk of stroke. However, some of the protective effect of potassium appears to extend beyond its ability to lower blood pressure. Maintaining a high potassium intake is best achieved by eating fruits and vegetables.

Diets high in fruit and/or vegetables are associated with a reduced risk of stroke, according to most studies. In a large preliminary study, cruciferous and green leafy vegetables, as well as citrus fruit and juice, conferred the highest degree of protection. Because it is not clear which components of fruits and vegetables are most responsible for the protective effect against stroke, people wishing to reduce their risk of stroke should rely primarily on eating more fruits and vegetables themselves, rather than only taking supplements.

A large study also found that women who eat higher amounts of whole grains are at lower risk of ischaemic stroke. Those women who ate more than one whole-grain food on an average day had approximately a 35% lower risk of suffering an ischaemic stroke compared with women who ate virtually no whole-grain products on an average day. This study fits with previous research showing that women who consume more whole grains are also at reduced risk for cardiovascular disease caused by atherosclerosis.

High salt intake is associated with both stroke and hypertension, a major risk factor for stroke. Salt intake may increase stroke risk independent of its effect on blood

pressure. Among overweight people, an increase in salt consumption of about 1/2 teaspoon (2.3 grams) per day was associated with a 32% increase in stroke incidence and an 89% increase in stroke mortality. Reducing salt intake is recommended as a way to reduce the risk of stroke.

Having one or two drinks per day has lowered stroke risk in most studies; however, regular heavy drinking or binge drinking has consistently been shown to raise the risk of suffering a stroke by increasing blood pressure and causing heart muscle abnormalities and other effects.

## **Lifestyle Modification**

Smoking is associated with a significantly increased risk of stroke. Even second-hand smoke puts non-smokers at increased risk.

Exercise reduces the risk of stroke. The benefits of exercise are probably due to its effects on body weight, blood pressure, and glucose tolerance.

Obesity has been associated with an increased risk of stroke in most studies. Excess abdominal fat appears to be more directly linked to increased risk of stroke, compared with fat accumulation in the thighs and buttocks. While losing weight and keeping it off is difficult for most people, normalizing weight with a healthy diet and exercise program is one of the best ways to reduce the risk of many diseases, including stroke.

## **Other therapies**

Individuals who experience a stroke caused by blockage of blood vessels (ischaemic stroke) receive clot-dissolving (thrombolytic) medications, such as recombinant tissue plasminogen activator (Alteplase®) and the anticoagulant heparin. Individuals who have a stroke due to bleeding in the brain (haemorrhagic stroke) usually receive a surgical procedure that stops bleeding and repairs blood vessels. After the acute treatment of stroke, doctors often recommend rehabilitation, including physical, speech, and occupational therapy.

### **Developing a Home Exercise Program After Therapy:**

Although most stroke survivors will have some sort of initial therapy and rehabilitation program, it usually only lasts a few months. However, it's often beneficial to continue an exercise program after therapy has ended -- recent studies suggest exercise can improve cardiovascular fitness, sensory and motor functioning and overall health.

Only about 14% of stroke survivors achieve full recovery of their motor functions. The remaining 86% will have some issues. Hemiplegia can make walking very difficult, which can lead to the stroke survivor becoming less active. This can create a vicious cycle, where the effects of inactivity, such as muscle weakening and decreased cardiovascular capacity, can lead to even further inactivity.

In addition to worsening their depression, which is very common in stroke survivors, inactivity can cause or contribute towards many physical complications, including osteoporosis and decreased circulation in the legs and feet. This can lead to skin ulcers and blood clots.

Inactivity also can cause the sedentary stroke survivor to gradually become more and more dependent on others, which can have many negative psychological effects, including depression, social isolation and a diminished self worth.

Current guidelines recommend that stroke survivors receive 20 to 60 minutes of aerobic exercise three to seven days a week e.g. treadmill-based exercise.

Because muscle weakness is common after a stroke, the guidelines also recommend strength training with resistance or light weights two to three times per week. The

program should include 10 to 15 repetitions of eight to 10 different exercises that involve major muscle groups.

Stretching and flexibility exercises are also recommended. The recommended frequency for stretching is two to three times per week performed either before or after the aerobic or strength training exercises.

Balance and Coordination Exercises are also recommended.

## Nutritional Supplement Treatment Options

Vinpocetine given by IV injection has been reported to improve some biochemical measures of brain function in stroke patients. A controlled trial found IV vinpocetine given within 72 hours of a stroke reduced some of the losses in brain function that typically follow a stroke. However, the reliability of human stroke research using vinpocetine has been questioned, and more double-blind trials are needed – [Vinpocetine 20mg, PE](#)

Folic Acid, Vitamin B12 and Vitamin B6 - Elevated blood levels of homocysteine have been linked to risk of stroke in most studies. What is not clear, however, is whether high homocysteine levels cause strokes or are simply a marker for some other causative factor. Supplementation with folic acid, vitamin B6, and vitamin B12 generally lowers homocysteine levels in humans.

- [Folic Acid Liquid PE / Folate PE](#)
- [Methylcobalamin PE](#)
- [B12/Folic PE](#)
- [P5P50 PE / B6 Complex PE](#)

Vitamins C and E - Narrowing of the neck arteries (carotid stenosis) caused by atherosclerosis is a risk factor for stroke. Preliminary diet studies have found that people who eat foods high in antioxidants such as vitamin C and vitamin E have less carotid stenosis.

In a double-blind trial, people with atherosclerosis in the carotid arteries were given a palm oil extract containing 160–240 mg of tocotrienols and approximately 100–150 IU vitamin E per day. After 18 months, they had significantly less atherosclerosis or less progression of atherosclerosis compared to a group receiving placebo. Vitamin E plus aspirin, has been more effective in reducing the risk of strokes and other related events than has aspirin, alone.

- [Buffered Ascorbic Acid PE / Pure Ascorbic Acid PE](#)
- [Vitamin E PE](#)
- [Tocotrienols PE](#)

Magnesium - Researchers have found an association between diets low in magnesium and increased risk of stroke, an effect explained partially, but not completely, by the ability of magnesium to reduce high blood pressure. Protection from stroke associated with drinking water high in magnesium has also been reported. IV magnesium given immediately after a stroke has been proposed as a treatment for reducing stroke deaths, but results so far have been inconclusive.

- [Magnesium Aspartate PE](#)
- [Magnesium Citrate PE](#)
- [Magnesium Glycinate PE](#)
- [Magnesium Orotate Kloesterl](#)

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