

IMPORTANT NOTE: food and supplements can interact with drug ingredients and affect absorption: always check the printed information available with medication, whether prescribed or over-the-counter (OTC). Don't stir medication into food, mix with hot beverages or take at the same time as supplements.

SUPPLEMENTS:

Below are a few suggestions, based on hypothetical and anecdotal information, which is all that is currently available. Obviously, this is far from being an exhaustive list, but I have attempted to pick out the most relevant examples for people with neurological problems such as those seen in arachnoiditis.

You do NOT need to take all of these supplements: I have starred those that I rate as being potentially the most beneficial.

Note that many vitamins and minerals have been assessed and given a Recommended Daily Allowance (RDA).

Vitamins A, D, K and E are all fat-soluble and are stored in the body, so it is possible to use too much, whereas other vitamins like B and C are water-soluble and any excess that the body doesn't need is flushed out of the system.

*Vitamin C: a powerful anti-oxidant; helps to enhance the effect of MSM (see below). Vitamin C has a strong impact on wound healing, as it has a role in making collagen; it is also involved in manufacture of hormones, steroids and neurotransmitters.

Of course, vitamin C is well known to lay people as helpful in prevention of, or recovery from, the common cold. Scientific studies have shown that vitamin C certainly significantly reduces the severity of symptoms and the duration of the common cold, as well as probably protecting from secondary bacterial infections such as bronchitis, which often follow the cold. Combining zinc with the vitamin is a common strategy to improve the efficacy further still.

*Vitamin B complex (most of B vitamins): a general "nerve tonic". There is some anecdotal evidence that MS patients have found that their sensory loss has been lessened after taking this vitamin. Try to ensure you use a preparation containing folate. (See below)

Vitamin B6 is essential in the synthesis of neurotransmitters, which inhibit pain impulses. It has been found to be helpful in conditions such as Carpal Tunnel Syndrome. Usual dose is 50-150mg/day. Patients should allow 12 weeks to see benefits. Dietary B6 can be obtained from meat, fish, egg yolks, beans, fruit, vegetables, cereals and liver: but losses occur during cooking.

Vitamin B12: severe deficiency may occur in Pernicious anaemia (due to lack of intrinsic factor in the stomach, necessary for it's absorption), or due to excessive chronic alcohol intake; in these cases there may be quite serious neurological symptoms and signs: sensory disturbance, numbness and weakness in the legs is especially common.

More subtle problems may occur with a lesser (probably clinically undetectable) degree of deficiency. Excess is not damaging. Meat, fish and eggs provide dietary B12, and unlike B6, cooking does not destroy it.

Folate: deficiency can lead to neurologic symptoms and a specific type of anaemia. Alcohol intake can interfere with folate absorption (and also B12): loss of appetite, nausea, diarrhoea, hair loss and mouth and tongue pain may result from low folate levels. If you are taking a B Complex preparation, check to ensure it contains Folate. Leafy vegetables, organ meats and yeast are good dietary sources.

Vitamin D: vital for strong bones and teeth; deficiency is rare; most vitamin D is produced by skin synthesis after exposure to sunlight: so rather than increase your dietary intake, go to the park and lie in the sun (British weather permitting, of course!!) Fish oil contains vitamin D.

Vitamin E supplementation has been found to ease symptoms of restless legs at night (an unpleasant crawling or aching sensation in the lower legs at rest, resulting in restlessness which may also occur in the arms) 400IU twice a day with meals: take for at least 2 weeks.

If symptoms are relieved, reduce dose to 400IU per day, if not, increase (but maximum is 1200IU daily) it is important to use alpha-tocopherol (a naturally-occurring type of the vitamin) as it interacts in a beneficial way with vitamin C to be a useful antioxidant, preventing chains of free radicals (which damage cells) from forming.

MINERALS/trace elements:

*MSM: a sulphur-based supplement that is reputed to have anti-inflammatory properties and is also said to reduce scar tissue in cases such as burn injuries. A few arachnoiditis patients have tried a regime of 1-2 g per day (taken with 500-1000mg vitamin C) and have found that after 3 months or so they have felt generally better and in particular, have fewer headaches. MSM is also used by patients with arthritis as well as athletes (to reduce post-race muscle soreness), vets and horse trainers

*Potassium: this is a vital mineral involved in many cellular processes. Some arachnoiditis patients seem to have low blood levels of potassium, as do patients with other chronic illnesses. This may worsen muscle weakness and pain and eating high potassium foodstuffs such as bananas, potatoes, beans (all fresh fruit and vegetables) and dairy produce especially goat's milk, may help to reduce this problem.

A supplement is probably unnecessary as most of those available in health shops contain less potassium than a banana!

*Magnesium: deficiency in this mineral can cause symptoms similar to those experienced by arachnoiditis patients, so logically, supplementing the diet (or increasing dietary intake) should help to reduce the symptoms)

Magnesium levels may be low if the patient is taking diuretic medication. Symptoms of low Mg

include: muscle weakness and tremors. (Increased neuromuscular excitability.) 400mg a day may be taken for muscle cramps.

Zinc: chronic illness may lower zinc levels. (Shown by white flecks on the nails); Zinc levels have been found to be lowered in patients with Rheumatoid arthritis.

Selenium: anti-inflammatory, antioxidant; a trace element; supplementation has been found to help reduce thrush; however, there is a link between selenium and thyroid hormone levels (note: zinc may also be implicated with thyroid hormone metabolism); selenium functions with and in a similar way to vitamin E; more work has been done on vitamin E, so it is wise to avoid large doses of selenium (there is no RDA as yet)

Iron: deficiency will cause anaemia and also may result in restless legs (akathisia) because it affects dopaminergic and opiate neurotransmission

Calcium: 1200mg taken at bedtime may help reduce nocturnal muscle cramps. In people with substantially reduced mobility (especially post-menopausal women) calcium supplement may be helpful in reducing the risk of osteoporosis (thinning bones): you will need to discuss this with your doctor. Foods such as dairy products and (surprisingly) baked beans are high in calcium.

OTHER SUPPLEMENTS:

*Cod-liver oil: contains vitamins A and D and is well recognised as a traditional remedy for stiff and sore joints.

*Glucosamine (and chondroitin) have been found to help reduce joint problems. Glucosamine seems to have a significant effect on joint pain. Usual dose is 500mg orally 3 times a day for 2 months, with improvement being seen after 4-8 weeks and continuing to increase over time.

Vets have been using glucosamine on horses and dogs successfully for some time. Some like

to add in other substances, such as Boswellin (frankincense) which seems to improve the penetration of glucosamine into the affected area. In November 1999, a major rheumatology meeting discussed the findings of a 3-year European study, which found that glucosamine is effective in osteoarthritis ("wear and tear" arthritis).

(NOTE: preparations, which are made from crab, lobster and shrimp shells, may be a problem for shellfish allergy sufferers)

*Anti-oxidants: (NOTE: vitamins C and E are antioxidant)

Alpha-lipoic acid, which has been found helpful in peripheral neuropathy. It traps free radicals, which are unstable by-products of cell metabolism, which can damage cell structures. Animal studies have shown that alpha-lipoic acid protects nerves from damage such as that seen in diabetes. It is now being used in Germany to treat diabetic neuropathy. Daily dose 600-1200mg.

Grape seed oil is another source of potent anti-oxidant. Grape seed extract contains bioflavonoids, which keep connective tissue soft and have anti-inflammatory properties.

Green tea: contains antioxidants, which may reduce rheumatoid arthritis symptoms.

Co-enzyme Q10: 300-1000mg helps to increase oxygen transport, and reduce fatigue; found to be helpful in degenerative neurological conditions. It needs to be taken for at least 3 months to become effective.

Pycnogenol: is a novel Super-antioxidant which may be beneficial in autoimmune conditions such as MS. Pycnogenol appears to reduce free radical levels and inhibit inflammatory enzymes and histamine.

The bioflavonoids in Pycnogenol are extracted from grapes, cranberries, beans, cola nuts and

other fruits and vegetables, but the patented source is the bark of the European Coastal Pine.

It works synergistically with vitamin C. Pycnogenol has been stated as being completely safe to use. There are various sources to buy pycnogenol in USA, but the products may differ in their bioavailability (amount that can be use by the body).

Quercetin: a water-soluble plant pigment, which is another flavonoid; Bioflavonoids assist vitamin C in maintaining healthy collagen.

An antioxidant, it also has anti-histamine and anti-inflammatory properties and has been found to be helpful in conditions such as lupus, arthritis, allergic conditions, asthma and maybe also diabetes (it is thought to protect against organ damage such as kidney and eye damage that commonly occur in diabetes.) it is found in foods such as onions (especially red onions), apples and black tea.

As a supplement recommended dose is 400mg 2-3 times a day. As quercetin protects and potentiates vitamin C, it is often taken in conjunction with this vitamin. Quercetin's anti-inflammatory properties (and absorption) can be enhanced by the addition of the pineapple enzyme bromelain.

Bromelain: an enzyme found in pineapple which has been found to help people with Chronic Fatigue Syndrome (CFS) Its actions include: fibrinolytic activity (helps to break down excess scar tissue in the healing process) anti-inflammatory action, modulation of cytokines and immunity, enhanced absorption of other drugs (notably antibiotics), mucolytic properties (breaks down mucus); digestive assistance (in particular meat) and may assist in stomach ulcer healing; enhanced wound healing; and cardiovascular and circulatory improvement.

Bromelain has been studied in both animals and humans quite extensively. It has shown therapeutic benefits in doses as small as 160 mg/day; however, it is thought that, for most conditions, best results occur starting at a dose of 750-1000 mg/day. Most research on bromelain has been done with divided doses, usually four per day, and findings indicate that results are dose-dependent. It is best to take it between meals rather than with food unless it is being used as a digestive aid.

Cetyl myristolate: has been found to substantially reduce pain and inflammation in rheumatoid arthritis, with sustained effect: a month course may be beneficial for up to 5 years. It has also been found useful in conditions such as Irritable Bowel Syndrome, Ulcerative Colitis, tendonitis etc. There are no known adverse effects. Dose is usually 8-12g and response should be within 7-21 days.

GLA: gamma linoleic acid from evening primrose oil and starflower oil (also blackcurrant oil): thought to be helpful in conditions such as fibromyalgia and ME. Evening primrose oil is an Omega-6 oil.

Green-lipped mussels: seems to reduce pain and stiffness in rheumatoid and osteoarthritis.

L-Tryptophan: precursor of the neurotransmitter serotonin: may be given for depression or to combat muscular excitability (such as restless legs)

DLPA: DL-phenylalanine: an amino acid (component of proteins). For pain relief take 2-3g daily in divided doses (not at meals).

Ribose: a new "miracle" supplement to combat fatigue; 2.5 g daily can boost stamina. 20mg daily may relieve fibromyalgia symptoms.

Diet:

Allergies:

*Food allergies are implicated in many types of pain. Neal Barnard MD is renowned for his book "Foods that fight pain."(Bantam 1999)

He says that there is evidence to suggest that foods in the nightshade family (tomatoes, potatoes) are implicated in cases of arthritis.

Of course, the triggers to migraine headaches: chocolate, cheese etc. are well known to most people. Wheat (gluten) allergy and lactose (milk) intolerance are also fairly much in the public eye.

However, more unlikely foods such as citrus fruit can also be triggers.

These triggers cause an allergic reaction, which may range from asthma and eczema (fairly obvious) to migraine, Irritable bowel, sinus trouble or blocked ears, joint pains (less obvious) etc.

There may be an immediate reaction or a delayed one: in the latter case, it can be difficult to determine the cause-effect relationship of the food to the symptom.

Here is a list of what Dr. Barnard terms the "dirty dozen";: top allergens:

1. dairy products

2. chocolate

3. eggs

4. citrus fruits

5. meat (including fish)
6. Wheat (bread, pasta etc.
7. nuts (especially peanuts)
8. tomatoes
9. onions
10. corn
11. apples
12. bananas
13. Coffee (to make it a Baker's dozen!)

There are also various additives and beverages, which are some of the worst triggers. These include alcohol (especially red wine); caffeinated drinks; monosodium glutamate: in many processed foods; aspartame (artificial sweetener) and nitrites (used to preserve food). E-numbers are of course now known to be linked to problems with hyperactivity in children.

Dr. Barnard compiled a list of foods he considers to be "pain-safe":

Brown rice, cooked or dried fruits (but check that there are no preservatives and exclude citrus, apples, bananas, peaches, tomatoes); cooked green, yellow and orange vegetables: artichokes, asparagus, broccoli, chard, greens, lettuce, spinach; beans, courgettes, marrow; sweet potatoes; tapioca; water (plain or carbonated bottled: tap water contains chlorine); condiments: modest amount of salt, maple syrup, vanilla extract.

In order to ascertain which foods are triggers, you need to go on a 2-week diet avoiding ALL trigger foods. Preferably, you should aim to use only organically grown produce as this avoids exposure to pesticides etc.

Then simply reintroduce the eliminated foods one at a time, every 2 days, to see which triggers symptoms. You may find that the very food you tend to crave the most is the one that turns out to be the culprit!

You can also arrange with your GP to have skin-patch tests if you have a condition such as eczema. For less obviously correlated clinical problems, you may need a test called the Elisa test, which tests a sample of blood to see which chemicals elicit a reaction from the blood cells.

Allergic reactions involve release, in the body, of a chemical called histamine. This causes inflammation and increased blood flow (hence it is implicated in sneezing, runny nose rashes and migraines).

Red wine contains a large amount of histamine and it is also found in beer, cheese, fish (especially tuna and mackerel), sausage, pickled cabbage.

This histamine intake in addition with natural histamine in the body (which may perhaps be increased by other factors in the environment, such as pollen, or a chronic inflammatory condition) can be enough to set off symptoms.

Incidentally, Dr. Barnard recommends coffee, (if it is not the trigger), paradoxically, to treat migraines.

He also suggests ginger (1-2g powdered per day), and supplementing magnesium (200mg per day). He mentions that calcium and vitamin D can act prophylactically to prevent migraine attacks.

As described below, feverfew (250mg per day) is an excellent herbal treatment for a migraine attack.

Salt: too high an intake can affect potassium levels. Try to reduce salt intake if possible.

*Weight-reduction may be necessary if immobility etc. have led to being significantly overweight; take care to aim for modest weight loss of around a kilo (2 pounds) a week, resulting in a gradual loss over a period of time. Faddish diets don't work in the long term, so it is really simply a question of starting a healthy eating regime that you can sustain.

More specific measures:

*Stop caffeine: it may worsen nerve-related pain; ensure a gradual withdrawal to prevent headaches. Caffeine is also implicated in unstable bladder type incontinence. A 5 ounce cup of brewed coffee contains about 128mg of caffeine; tea: 30mg; cocoa 10mg; 12 oz. Can of cola: 35-50mg. Stopping tea/coffee will reduce the xanthine intake: xanthine is implicated in pain.

Rhubarb: helps with constipation. There is about 2.5 g fibre per 1 cup serving. Only eat stalks: the leaves can be toxic.

Recipe:

Mix 3 cups fresh, raw rhubarb stalks with 1 cup fresh/frozen strawberries. Add ? cup water and ? cup honey. Place all ingredients in a blender and puree until smooth. Make about 4 servings. Calories 134 per 2/3 cup.

Dairy products: rich in protein, which is thought to make conditions such as rheumatoid arthritis worse (the theory being that we consume too much protein and the excess is deposited in our joints). Also, dairy produce is known to encourage mucus formation in the body.

If you suffer from repeated bouts of sinusitis or middle ear infection you might benefit from excluding dairy products from the diet for a few weeks to see if this helps.

*Avoid: high sugar foods (but there is some evidence that chocolate may in fact help reduce pain!) high fat foods.

*Try to increase: fresh fruit and vegetables, fish (especially oily fish such as mackerel) and poultry.

*Avoid large fluctuations in blood glucose by staying off high sugar foods and eating little and often. This will reduce the likelihood of muscle cramps due to low blood glucose.

Olive oil has been found to have protective properties against rheumatoid arthritis.

Curcumin: in turmeric (in curries): potent anti-inflammatory agent.

NOTE: Grapefruit juice can potentiate (heighten) the effects of some medication, especially narcotics such as morphine; this can be in an unpredictable fashion, the degree of potentiation varying considerably between doses.

It should not, therefore, be considered for use in heightening the therapeutic effect of the medication and should be viewed with some caution as regards being part of the diet.

