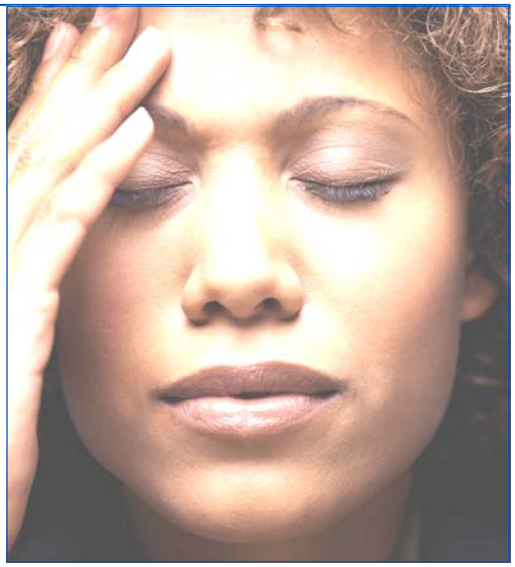
Inflammation & Pain

Your at a glance guide to staying healthy for life by Quest Vitamins

Pain in its varied forms is among the most widely experienced symptom from which sufferers seek relief. Common types of pain include back pain, migraine, neck strain, and facial ache.



The Physiology of Pain & Inflammation

Physical pain is a sensation that occurs when stimuli such as tissue damage is detected by nerve endings. Pain receptors are numerous in the skin, they are also found in smaller quantities in tendons, joints, and body organs.

When these pain receptors are stimulated they transmit signals through sensory neurons in the spinal cord. The signals are transmitted to one of four regions of the mid brain (the thalamus) depending on whether the stimulus was detected on the head and neck or the rest of the body.

Inflammation is one of the most frequent triggers of pain. Classic symptoms of inflammation include redness and heat, due to increased blood flow to the inflamed site, swelling, caused by an accumulation of fluid, and pain. Inflammation is an essential process, but unregulated it can result in tissue destruction and chronic pain.

Pain is subject to regulation, enabling a danger to be dealt with before pain is registered. This occurs through the release of glutamate, substance P and endorphins, which all reduce the transmission of pain signals.

Common Pain Experiences

Arthritis: Over time the cartilage that cushions joints can become worn down, resulting in inflammation, pain and eventually osteoarthritis. Rheumatoid arthritis occurs when body's immune system attacks cartilage tissue.

Back pain: The lumbar (lower back region) supports the entire weight of the upper body; as a result back pain is very common. Triggers include bending awkwardly, lifting something improperly, slouching, driving for prolonged periods, pregnancy, bone disorders, obesity and muscular tension.

Headache and migraine: A number of factors can trigger tension type headaches, the most common are poor posture or sleeping position, neck strain, eye strain, stress, caffeine withdrawal, bright sunlight, hypoglycaemia and dehydration. Chocolate, cheese and red wine may trigger headaches or migraines; these foods contain histamine. Migraine headaches are very severe, they are accompanied by nausea and sensitivity to light, sound or smell; migraines are associated with an alteration in brain chemistry, in particular levels of the neurotransmitter serotonin, which reduces pain perception, are reduced.

Fibromyalgia: Fibromyalgia is a chronic condition characterized by pain in the muscles, multiple tender points on the body and overwhelming fatigue. The underlying cause is not fully understood.

Information created by Quest Vitamin's Nutritionist.
Questions and Comments please email us; nutritionists@questvitamins.co.uk

Quest Vitamins Limited · 8 Venture Way · Aston Science Park · Birmingham · B7 4AP · UK · Tel: 0121 359 0056 · Fax: 0121 359 0313 ·
E-mail: info@questvitamins.co.uk · Internet: www.questvitamins.co.uk · www.questhealthlibrary.com · www.lp299v.co.uk

Inflammation & Pain

Your at a glance guide to staying healthy for life by Quest Vitamins

Key Nutrients For Inflammation & Pain

- ✓ Turmeric
- ✓ DPLA
- ✓ 5-HTP
- ✓ EFA
- ✓ Magnesium
- ✓ Bromelain
- ✓ Vitamin D

Nutritional Approaches to Pain Management

Pain is frequently self managed with non-steroidal anti-inflammatory NSAID drugs (aspirin, ibuprofen); these drugs work by inhibiting enzymes known as cyclo-oxygenases (COX), which promote the production of pro-inflammatory substances known as prostaglandins and thromboxane. Regular users of NSAIDs however are at risk of developing gastritis and ulcers.

Solanaceae plant foods: Nightshade foods include tomatoes, white potatoes, chilli pepper and egg plant; they contain solanine, a compound which may increase painful inflammation in some people. Do not eliminate food groups without professional advice.

Turmeric & DPLA: Curcumin, the active component of the spice turmeric, appears to selectively regulate COX-2, limiting the potential for gastric damage. D-Phenylalanine inhibits carboxypeptidase A, which is responsible for breaking down endorphins, thus increasing the amount of time that endorphins exert their effects.

5-HTP: 5-hydroxytryptophan is the immediate precursor to the "feel good" neurotransmitter serotonin. Research has indicated that it may reduce the severity and frequency of headaches.

Glucosamine: Glucosamine is one of the principal substrates used in the synthesis of substances that comprise cartilage. It is believed to play a role in cartilage formation and repair.

Essential fatty acids: Both EPA (omega-3) and AA (omega-6) serve as a source of eicosanoids, chemicals with major regulatory roles in blood pressure, blood clotting and inflammation. Eicosanoids derived from EPA are less potent inducers of inflammation, blood vessel constriction and blood clotting than eicosanoids derived from AA, making fish oil highly anti-inflammatory.

Magnesium: Muscle contraction and relaxation is regulated by calcium and magnesium. Low levels of magnesium have been found in those suffering from fibromyalgia, frequent headaches and pre-menstrual pain. Magnesium (200 mg two to three times per day) with malic acid (1,200 mg one to two times per day) has been used successfully with fibromyalgia patients.

Bromelain: Bromelain is found in pineapples, taken between meals it is often used to reduce the inflammation associated with sprains and strains, and other minor muscle injuries. 500 - 2,000 mg a day in two divided doses is suggested for arthritic conditions.

Pain is a protective mechanism; individual experiences of it vary widely. It is commonly self managed with NSAIDs, but these have potentially severe side effects. Certain key nutritional supplements can help cool the fire of pain safely.

Information created by Quest Vitamin's Nutritionist.
Questions and Comments please email us; nutritionists@questvitamins.co.uk

Quest Vitamins Limited · 8 Venture Way · Aston Science Park · Birmingham · B7 4AP · UK · Tel: 0121 359 0056 · Fax: 0121 359 0313 ·
E-mail: info@questvitamins.co.uk · Internet: www.questvitamins.co.uk · www.questhealthlibrary.com · www.lp299v.co.uk