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Literature Education Series On Dietary Supplements

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Background:

Feverfew is a bushy perennial that resembles chamomile and grows along fields and roads of Europe. It is native to the Balkans, but today, in addition to Europe, is naturalized in North and South America. Feverfew is a plant with two valid botanical names. Both Taracetum and Chrysanthemum are used in influential taxonomic reference works. This is actually unfortunate because it leads to confusion.

Some sources claim that the name Feverfew comes from the Latin *febrifugia*, which means "driver of fevers." However, the plant was never called *Febrifugia*. The ancient Greeks called it *parthenion*, from *parthenos* for virgin, and used it for menstrual problems, not fever. During the Middle Ages the plant picked up the name Featherfoil, because of its feather-like leaf borders. Feverfew evolved out of the name Featherfoil, and use of the herb for fevers started after the name change.

Because Feverfew is strong smelling, herbalists often planted them around their homes to purify the air. It was believed that malaria, which had plagued Europe since prehistoric times, was caused by bad air. The name malaria comes from the Italian *mala*, meaning foul, and *aria*, meaning air. Perhaps Feverfew was tried to lower the fever associated with malaria based on this association. However, it was not until Spanish explorers brought cinchona bark back from Peru that a worthy treatment for malaria was brought on board.

Other traditional uses of Feverfew have included: anemia, earaches, trauma, parasites, insect repellent, to treat bites and stings, ringing in ears, vertigo, difficulty during labor, stomach aches, toothaches, hysterical complaints, nervousness and lowness of spirits, and as a general tonic. But the doctor with the greatest insight may have been a 17th century Englishman, John Parkinson. He claimed Feverfew to be "effectual for all pains of the head." And Sir John Hill, another famous 18th century physician wrote, "In the worst headache, the herb exceeds whatever else is known."

Use of Feverfew declined over several hundred years until the 1970s when sufferers of migraine headaches and arthritis began using it as an alternative medicine. Feverfew's explosion in popularity can be credited to the wife of the chief medical officer of Britain's National Coal Board. She suffered from chronic migraines until a miner shared his secret of chewing Feverfew leaves. She tried it, got immediate results, and after 14 months, was free of headaches. Her husband was impressed and brought his wife's phenomenon to a Dr. E. Stewart Johnson of the City of London Migraine Clinic, who, in turn, tried it on some of his patients (This wouldn't happen in the U.S.). He was impressed enough with the results that he tried it on another 270 of his patients and surveyed the results. And fine results they were. Seventy percent of the subjects reported significant relief.

What followed was Dr. Johnson arranging for rigorous scientific trials. Tests were double-blind and placebo controlled. Results published in the *British Medical Journal* and *Lancet*, validated Feverfew's value in the treatment of migraines.

Of late, Feverfew has been extensively studied for the prevention of migraine headaches. We believe that it prevents migraines through its effects on serotonin, a neurotransmitter believed to play an integral role in the headache syndrome. It inhibits the release of serotonin from platelets and other inflammatory cells. Other effects that may contribute to the effectiveness of this plant extract include an inhibition of the synthesis of inflammatory prostaglandins and a reduction of platelet aggregation.

The major active phytochemicals in the plant are sesquiterpene lactones, principally Parthenolide. Recent clinical trials have unearthed two monkey wrenches in the system. First of all, a survey of commercially available Feverfew products discovered that many products contained no Parthenolide at all, and that many contained only trace amounts. This would sound a lot worse if it were not for the fact that current research is discovering that even products with high Parthenolide products aren't always working.

Not all migraines are caused by the same triggers. For those individuals in whom serotonin release is the primary trigger/underlying or initiating mechanism, feverfew could be helpful, but there are at least ten other triggering metabolic dysfunctions for migraine, and it is conceivable that feverfew may not be effective against those.

Or, the conclusion may lie in the chemotype of plant used. The positive British studies were all done with similar plants. No Feverfew extract has thus far been shown to be effective for migraine prevention. A recent Dutch trial done with an extract standardized to the arbitrary .2% Parthenolide standard did not yield a positive outcome.

This leaves the consumer out in left field. Until more studies are done to elucidate Feverfew's actives, and identifying the plant varieties that are effective, it is kind of a hit and miss situation. You may have to try different brands before settling on an effective one.

Modern Day Uses:

Feverfew is indicated for the long-term treatment and prevention of migraine headaches. Health Canada, Canada's equivalent to our FDA, has approved feverfew capsules as an over-the-counter medication for migraine prevention. In my opinion, Health Canada lives in the Dark Ages. If they approve Feverfew, it must be very special.

Other contemporary uses of Feverfew might include:

- Digestive aid- Feverfew is a close relative of Chamomile, and likewise contains phytochemicals that are antispasmodic and soothing to the gastrointestinal tract.
- Menstrual cramps- Feverfew is a smooth muscle relaxant and blocks prostaglandins linked to pain and inflammation.
- > Arthritis- Feverfew suppresses

inflammatory prostaglandins, leukotrienes and thromboxanes, three culprits of inflammation. It acts much like nonsteroidal antiinflammatory drugs, but without the side effects.

Rheumatoid arthritis- coupled with other actions of Feverfew, is its ability to inhibit the release of inflammatory chemicals from platelets.

Until more is learned to uncover Feverfew's mysteries, chose a product prepared from dried leaf, standardized to at least .2% Parthenolide. While Parthenolide may not be the active, at least it is a marker. If you can find Feverfew grown in the U.K., you may improve your chances of effectiveness. In Canada, where Feverfew is an over-the-counter drug for migraines, the recommended dose is 125 mg daily of .2% Parthenolide standardized preparation. This yields a daily intake of 250 micrograms of Parthenolide.

Remember that Feverfew suppresses migraines and is not a cure. It is to be used on a maintenance basis. Feverfew has been shown to decrease the severity, frequency, and duration of headaches. Clinical experience dictates that it may take four to six weeks to effect a positive outcome.

Consider supplementing with vitamin B-2 and magnesium to possibly further enhance the effectiveness of Feverfew. Every little bit helps.

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