

Nature's Field

An Electronic Journal for NSP Distributors

Feverfew

By Steven Horne and Mark Montgomery

One of the charges that's been leveled against herbalism for the past hundred years is that it lacks "scientific proof." Feverfew is one herb that has been extensively studied in the last twenty years and proven useful for a variety of complaints. Of course, it's best known for its use as a headache remedy (specifically migraines), but it also has other documented uses.

Reportedly native to Southeast Europe, parts of the former Soviet Union and Asia Minor, Feverfew spread via the Mediterranean region to all parts of the world. A bushy perennial that grows one to three feet in height, it closely resembles its relative, chrysanthemum, which is used in Chinese medicine.

Known to the ancient Greeks as parthenion, feverfew was supposedly known as febrifugia by the Romans, and used to treat fevers, which resulted in its common name. However, according to the most authoritative sources like Michael Castleman in *The Healing Herbs*, "the plant was never called *febrifugia*. Ancient physicians, including Dioscorides and Galen, used its Greek name, parthenion, and prescribed it for menstrual and birth-related problems, not fever..." But once feverfew was mislabeled febrifuge (or "fever reducer") herbalists began to use it as one, even though it's not an effective remedy for fevers.

So, if feverfew doesn't cure fevers, what does it do? The answer is simple—it reduces inflammation. This is the key to its centuries-old reputation as a cure for headaches. Herbalist John Hill wrote in 1772, "In the worst headache this herb exceeds whatever else is known." Research over the last twenty years has borne this out. Feverfew appears to work on the smooth tissue of the arteries in the brain, the digestive tract and the uterus, where it protects tissue against the damaging effects of histamines, prostaglandins and other inflammatory substances.

Aside from reducing migraines, PMS, and menstrual and digestive cramps, feverfew has other benefits which have been demonstrated in studies published in prestigious medical journals. It has anti-microbial and anti-cancer activity, helps lower blood pressure, diminishes blood clots, promotes more restful sleep and reduces the pain of arthritis. It also has been shown to promote menstruation when menses is scanty or deficient.



Photo by Steven Foster

Although chewing the fresh or frozen leaves of feverfew delivers quite effective results, most people find them too bitter and prefer to take the herb in capsule form. The leaves and/or capsules offer best relief for headaches, while taking feverfew in an infusion provides several other healing benefits including: lowering blood pressure, aiding digestion, relieving menstrual complaints, and generally soothing the nerves.

The typical use of this herb is four to six capsules daily with meals. It is generally not effective in stopping migraines once they've started, but works best for headaches when taken daily as a preventative. It is also available in a standardized, high-potency concentrate. Take one tablet of the concentrate daily. Feverfew is also an ingredient in Stress-J.

Here's one final tidbit about feverfew. According to Kathi Keville, author of *The Illustrated Herb Encyclopedia*, feverfew has suffered "a botanical name crisis." Originally named *Pyrethrum parthenium*, its name and classification were changed in the 1800s to *Matricaria parthenoides*. In the 1900s, it was moved to the *Chrysanthemum* genus and renamed *Chrysanthemum parthenium*. Most recently it has joined the tansy genus and been christened *Tanacetum parthenium*, though you'll still find it in many herbal dictionaries among the chrysanthemums. How's that for a "truth in labeling" nightmare?

Sources:

The Complete Medicinal Herbal by Penelope Ody
 "Feverfew" by Christopher Hobbs, in *HerbalGram* (Spring 1989).
A Handbook of Native American Herbs by Alma R. Hutchens
The Healing Herbs by Michael Castleman
The Illustrated Herb Encyclopedia by Kathi Keville
Nutritional Herbology by Mark Pedersen

In This Issue

Feature Herb: Feverfew	1
Steven's Ramblings & Ravings: Fat Facts, Part One: Saturation and Transfatty Acids	2-3
Kimberly Balas' Clinician's Corner: Answers to Blood Chemistry Questions... ..	4-5
Product Handouts: Headaches	6
APS II with White Willow Bark	7
Announcements/Publication Info	8



Steven Horne's Ramblings and Ravings

Fat Facts, Part One

Saturation and Transfatty Acids

The issue of *Sunshine Sharing* we'll be sending out this month is about fats, and when I went to write it, I found out I had a lot of unanswered questions and confusion about the whole subject, especially with all the new forms of essential fatty acid supplements that have recently come on the market such as CLA, DHA, etc.

So, I did what I always do when I'm having trouble understanding something, I did some research. When I found the information I was looking for, my confusion started to clear, and my next thought was, I'll bet a lot of other people are confused about this issue, too. Unfortunately, I simply ran out of space in *Sunshine Sharing* to record all I'd learned, so I'm going to elaborate on it here, including adding illustrations I didn't have space to publish. (There's some overlap, but this will give you the "behind the scenes" story on the latest *Sunshine Sharing*.) So, with that understanding, here goes...

Saturation

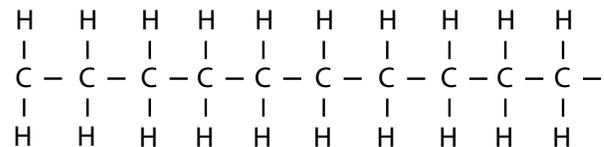
For starters, the fats we find in foods are found in the form of triglycerides. You've probably heard of triglycerides because we have them in our blood. So, when you hear someone talk about having a high level of triglycerides on a blood test, that simply means they have a lot of fat in their blood.

Triglycerides are composed of three fatty acids attached to one molecule of glycerine. When we digest fats, the body breaks the bond the fatty acids have with the glycerine. That's the job of the lipase (fat digesting) enzymes from the pancreas. The bile secreted from the liver has the purpose of making these fats water soluble so they can be absorbed and transported through the bloodstream. So, for starters, if your pancreas isn't secreting enough lipase enzymes and/or your liver and gallbladder aren't providing sufficient bile, you're not going to get the benefit of the fats you consume. This includes any fat supplement you take, such as flax seed oil or omega-3.

Now, you've probably all heard that there are three basic kinds of fatty acids—saturated, monounsaturated and polyunsaturated. What's interesting is that I got a clearer understanding of this from a cookbook than I did from any of the more "technical" references I looked at. In Alton Brown's book, *I'm Just Here for the Food*, he compares fatty acids to a line of shoppers, each having two hands which can hold shopping bags. The shoppers are arranged in a long line like you'd find at the checkout counter.

In fatty acids, the shoppers are carbon molecules and the shopping bags are hydrogen atoms. So, if all the shoppers in the

line have a shopping bag in each hand, the fatty acid would be saturated. There's no more room for any hydrogen atom shopping bags. I don't have the cute illustrations Alton had in his book, but chemically, it would look something like this:



Each of the C's represents a carbon molecule (one of our molecular shoppers). Each carbon molecule shopper is tied to the molecule in front of it and the molecule behind it by a chemical bond (represented by the little lines.) Each carbon molecule shopper has two arms, each of which can hold a molecular shopping bag. This is represented by the H's which are the hydrogen atom shopping bags. A completely saturated fatty acid is called *stearic acid*.

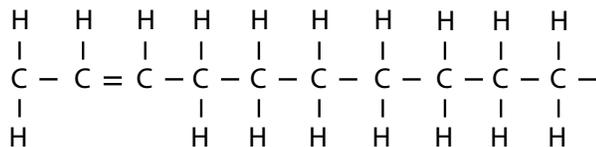
Stearic acid is the primary fatty acid in oils like coconut oil. It is also a primary component of animal fats. A high quantity of stearic acid (saturated fatty acids) in any fat will make it solid at room temperature. It also makes the fat more stable in cooking and less likely to go rancid (for reasons we'll explain shortly).

Stearic acid makes good fuel for keeping the body warm (which is why Eskimos can get away with eating a lot of saturated fat), but it isn't good for other jobs where the body needs different kinds of fatty acids. See, because they are more solid, saturated fats help to harden cell membranes. This is good up to a point, but if cell membranes get too hard, things have a hard time getting in and out of the cell.

Since the brain is composed primarily of fat, it's good to be a "fat head" because the right kinds of fats make you smart. But, if our diet is too high in saturated fat, then being a "fat head" won't be a good thing because we'll also be "hard headed," meaning it will be hard for ideas to move in and out of our brain. (I'm only partly joking, because I really believe that the wrong kinds of fats will reduce intelligence, while the right kind will increase it.)

Continuing with our analogy, our line of shoppers don't like having empty hands. So, when two of the shoppers don't have a bag, they hold hands with each other instead. In chemical terms, this means that when two carbon molecules don't have hydrogen atoms attached to them, they form an additional bond with each other. Chemically, this is called a double bond. Any oil where two of the carbon molecule "shoppers" aren't holding their hydrogen

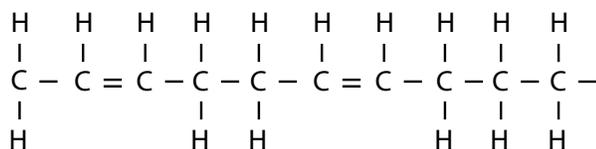
molecule “bag” is unsaturated. Chemically, this looks something like this:



As shown in the above diagram, two of our carbon molecule shoppers don't have hydrogen molecule shopping bags. So, they form a bond with each other instead, which is represented by the double line between them. They are holding hands with each other instead of holding a hydrogen molecule shopping bag. This always happens in pairs (you don't find just one shopper missing a bag).

In the above diagram, only one pair of carbon molecule shoppers don't have bags, so there is only one double bond. This makes the fatty acid monounsaturated. (“Mono” meaning one and unsaturated meaning there is room for two more hydrogen atoms.) The primary advantage of monounsaturated fats is their stability for cooking, but they are also liquid, so they won't harden tissues as much. Oleic acid is a monounsaturated fatty acid which is found in high quantities in olive oil and canola oil, which is why these oils are typically recommended for cooking by nutritionists.

Now, if there is more than one pair missing hydrogen atoms, the oil is polyunsaturated. (Poly means many.) Polyunsaturated fats are liquid at room temperature. In these fatty acids, there is more than one double bond, so more than one pair of shoppers are holding hands rather than holding a shopping bag. Chemically, this looks something like this:



All the fats we eat are actually a mixture of all three types of fatty acids, in varying proportions. For example, coconut oil is 92% saturated fat (i.e., steric acid), 6% monounsaturated fat and 2% polyunsaturated fat. Olive oil, on the other hand, is considered a monounsaturated fat because it is: 15% saturated, 73% monounsaturated (i.e., oleic acid), and 12% polyunsaturated. Safflower oil is a polyunsaturated fat because it is 10% saturated, 13% monounsaturated and 77% polyunsaturated.

Most nutritionists believe that saturated fats are “bad” and monounsaturated and polyunsaturated fats are “good.” Unfortunately, it's not quite that simple. Since all fats contain all three types, the body probably needs some of each. Also, recent research is showing that unrefined coconut oil (even though it is saturated) has many health benefits. So, after doing a little more research I'm

not ready to jump on the bandwagon and say, “saturated fats are bad for you, period.” There are other factors.

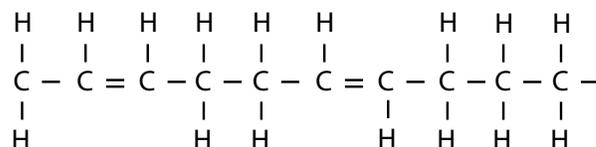
Here's where I really had a breakthrough in my understanding of fats. All essential fatty acids are polyunsaturated fatty acids. That's why polyunsaturated oils are so important. We need these polyunsaturated essential fatty acids to keep tissues and cell membranes pliable and to perform numerous other functions which saturated and monounsaturated fats can't perform.

But polyunsaturated fats have a problem. Because their carbon molecules aren't saturated with hydrogen, their shoppers have free arms which are available to grab things they shouldn't. That's what turns oils rancid.

As these free arms grab hold of various chemicals in the environment the oil develops an “off” odor and taste. Polyunsaturated oils, having the most free arms, are the most prone to going rancid. And rancid oils don't just taste and smell bad, like any spoiled food, they aren't good for you either.

The commercial answer to this problem has been the hydrogenation of oils. Hydrogenation simply means that the oil is bombarded with hydrogen in the presence of heat and some chemical reactors, which cause the molecular shoppers who don't have hydrogen shopping bags to pick up a hydrogen molecule.

The problem is that this process adds hydrogen molecules randomly, rather than in the controlled manner nature does. This results in transfatty acids, which look something like this:



Now, instead of the shopper holding hands on the same side, they have to cross over to the other side. This configuration confuses the body and causes a lot of problems, because it changes the molecular shape of the fatty acid.

In the next issue, I'll elaborate further on the topic of fats and provide some additional information to help you sort through all the different fat supplements NSP offers to determine which ones might be right for you.

Steven H. Horne is a professional member and past president of the American Herbalists Guild, a certified iridologist with the International Iridology Practitioners Association, and a gifted teacher and consultant in the field of natural health care. He is president of Tree of Light Publishing.





Kimberly Balas' Clinician's Corner

Answers to Blood Chemistry Questions

Blood Testing Services

I have spent a couple of hours on the phone with the PR man at a company that offers a competitive blood testing service to the one you offer. I still have a lot of questions about how their test results are going to be used by people who have no training in the interpretation of blood chemistry and how the information they provide will translate into designing an appropriate supplement program. I know that you offer a blood testing service, can you tell us about the difference between your service and other services?

S.

There are differences here as there are with many competing services. First of all, you can't make a diagnosis with blood work unless you are licensed by your state to do so. So, if you want to get involved in blood work analysis you need to be involved with a company that isn't going to put you in a compromising position by making a medical diagnosis or the appearance of one with the blood work. Our results are physiological (meaning they relate to organs, glands and body systems and their functions) rather than pathological (meaning they relate to disease conditions).

Second, the medical world interprets each test individually, then they come up with a treatment for the test, not the person. In other words, if cholesterol is high, then they want to lower cholesterol. This isn't the way the body works. There is a reason why cholesterol will be high and the clues as to why it is high are found in looking at other tests in conjunction with the high cholesterol. This is how we look for root causes instead of just throwing remedies at the symptoms. The competitive companies I've looked at are recommending specific supplements for specific tests just like the medical doctors do. They aren't trying to look for root causes.

Third, I've spent seven years shifting blood chemistry with nutrition, so I have seven years of actual research about what works to shift blood chemistry. The competitive companies I've looked at are just guessing about what will shift the blood work because they're making supplement recommendations based on the medical (pathological) interpretation of the tests, not the biochemical or nutritional (physiological) understanding. Also, I've done my research using NSP products, so I have the data to back up which NSP products have worked for different situations. Nobody else out there has this information (unless they've gotten it from me) because nobody else has seven years of experience in shifting blood chemistry with NSP products with proven results.

Fourth, there is also a legal issue here, because if you're using supplements to treat diseases you're setting yourself up as a medical doctor and running the risk of being charged with practicing medicine without a license. Of course, this is okay if you have a licensure as an ND, MD, DC, etc. If you're focusing your evaluation on the physiological aspect (structure and function) then you're going to be working with structure/function claims which are legal under the Dietary Supplement Health and Education Act, whereas pathological claims that supplements will help disease states are not.

Fifth, our service uses more up to date information on lab ranges and not just the ranges provided by the labs. These ranges are based on data that was collected over 40 years ago and haven't changed much. It's also important to realize that most people who get blood tests are sick, which also helps skew the ranges. Other ranges (particularly cholesterol and triglycerides) have been set to help push the sale of certain drugs. There is plenty of information in medical reports and journals that has helped us establish more optimal ranges.

Sixth, I would want a company that has an alternative medical doctor on staff who actually uses herbs and supplements in their office and truly understands the connection with the blood chemistry and altered ranges. Other companies I've looked at have a doctor who doesn't use the supplements and has no experience with them. We use a well-known medical doctor who uses NSP supplements, and sends 95% of the patients in his office home with nutrition and supplement information instead of prescriptions.

Seventh, currently the blood work is being offered with educational information to support the data and supplements as well as training in the blood chemistry. Steven is going to provide the product information for the blood work company, so you'll also have the backing of his knowledge to provide data for your clients on the products you're recommending for them and why they work. Other companies that offer integration of blood work

To learn more about blood chemistry analysis attend Kim's new course, *A Simple Approach to Blood Chemistry: The Answers are In the Blood*. It is being held before the NSP National Convention in Salt Lake City, UT (August 30, 2005 from 9:00 AM - 5:00 PM) Cost is \$125.00, after Aug 1, \$150. Call 888-707-4372 to register or register online at: www.treelite.com.

findings with NSP products have people with far less knowledge and experience with the product line and it's actual uses.

Eighth, the program I've developed includes metabolic typing and blood type which provides food and lifestyle recommendations for the client based on their blood chemistry profile. It also tells whether they need cleansing or building programs and offers educational support to show you which products are building or cleansing. We've also got information on emotional profiles with blood tests and how to use essential oils to shift blood chemistry. These are features I haven't seen in other services.

Finally, our lab services are reasonably priced, which means people will be able to afford to purchase the supplements. Our goals are to help people by providing a service that will really help them improve their health. This is obvious when you look at the integrity of the people who are involved in this project. We are all personally dedicated to practicing natural health for ourselves and our families by using NSP products and quality nutrition. If you want to provide the best service for your NSP clients and operate in a manner that won't get you in legal trouble, ours is the top service out there.

IgM Antibodies

I received the following email concerning a man with Celiac's disease. What can you tell me about IgM levels? Does the blood panel you offer from Labcorp include this test?

"He had some blood work done a couple of weeks ago and everything came back OK except his IgM levels, which are very high. Normal range is 23 to 240 and his level was 943. This happens in multi myeloma cases, which is what his Mom had—cancer of bone marrow. It can also be a symptom of some other things such as Celiac's disease, arthritis and hepatitis. I wonder if there is anything you know of, that can decrease IgM levels.

"I did look up some things on the internet, but couldn't find much information as far as what to do. Our doctor says there isn't much to be done for multi myeloma, if this is what it is. He wants to run another test in about six weeks."

Geraldine

We can order this test if you want, although it's not part of the standard panel we run. IgM is a specific form of antibody and the antibody tests tend to be a little pricey. If his liver enzymes came back normal, I would highly doubt any of the health problems you mentioned are a concern. Like any other blood test, an IgM test is not a stand alone test. It needs to be evaluated in combination with other tests and data on the client. For instance, the high IgM number could have been caused by something he had recently eaten that triggered an allergic response which created a hyperactive immune reaction.

So, for starters, I'd just try having him take some Protease between meals and work on his adrenals. All allergies are related to the adrenal medulla because of too much stress on the adrenal cortex. Yucca and Adrenal Support are good choices for balanc-

ing out the adrenals in these cases. It is important to get caffeine and other stimulants out of the diet until the adrenals are balanced.

As for the antibodies there are actually 5 types—IgG, IgM, IgA, IgE, IgD. Collectively they serve to neutralize toxic substances including toxic metals. They also support phagocytosis to kill pathogenical microorganisms. They are secreted from the B lymphocytes.

IgG is the primary antibody, making up as much as 85%. IgG antibodies have a half life of about 23 days, which means that about half of the antibodies formed will be gone in 23 days.

IgM antibodies only make up 5-7% of the body's antibodies and have a half life of 5 days. They are among the first immunoglobulins to be secreted in response to antigens. They serve as a compensatory mechanism for heavy metal exposure in people who are protease deficient. This is why protease may be helpful. If mercury or other heavy metals are a problem then Heavy Metal Detox may also be needed.

If IgM antibodies are low then there is usually a chronic bacterial infection. In order to battle the response of the IgM's, I would use 12 mg. of iodine per day.

IgM antibodies function intravascularly along with IgD antibodies, which are found on the surface of B lymphocytes. These serve as receptor sites for food antigens (allergy producing substances in foods that don't agree with our body). IgD has a half life of 23 days and constitutes less than 1% of the total antibodies.

It is also important to rebuild the digestive tract when there have been allergic reactions. The intestinal tract stimulates synthesis of IgA antibodies with the help of friendly bacteria. IgA can constitute up to 15% of the antibodies and has a half life of 6 days. It is synthesized by immunocytes within a variety of mucus membranes. It is a product of external excretions such as tears, saliva, semen, urine, colostrum, mucous membranes of the respiratory system and digestive tract. A healthy intestinal tract serves as the primary site of synthesis.

IgE antibodies constitute less than 1% of the total antibodies and work along with eosinophils to help kill parasites. They can remain elevated above 3% though when there is chronic inflammation. An initial rise in IgE is usually due to food sensitivity.

Kimberly Balas is a board certified naturopath and an instructor for Tree of Light. She is also a certified iridology instructor and a board member with the International Iridology Practitioners Association (IIPA). She is available for personal consultations in her Melbourne, FL office or by phone (321-626-9243).





Headaches

Natural solutions to ease those pains in the head

Headaches are an extremely common health concern in the United States. Approximately 10% of the population suffer from migraine headaches. The situation with tension headaches is even worse—up to 40% of the population suffers from them. Americans buy literally tons of aspirin and other pills each year to ease headache pain. The sad thing is that this money is being spent to mask the symptoms and not to deal with the underlying causes. So, the headaches keep coming back.

In general, most headaches fall into two categories: vasoconstrictive and vasodilative. *Vasoconstrictive headaches* are caused by a lack of blood flow to the head area, typically the result of tension in the neck and shoulders caused by lymphatic stagnation and muscle cramping. Sometimes known as tension headaches, vasoconstrictive headaches typically create a sensation of pressure on the head, as if the head is being constricted by a vise or a belt. The tension in the neck and shoulders often also creates spinal subluxations, constricting nerves coming from the neck. In these cases, there may be a sense of pain in the neck.

Vasodilative headaches are caused by the exact opposite problem, i.e., by too much blood flowing to the head area. This is the typical pattern of most migraine headaches. With vasodilative headaches, there is a sensation that the head is exploding outward. There is a pounding, throbbing quality to the pain, often accompanied by sensitivity to light and sound. Someone with a vasodilative headache would usually like nothing more than to rest in a darkened, quiet room.

Cluster headaches are less common than tension headaches or migraines. Interestingly, cluster headaches tend to strike men more than women, unlike migraines, which tend to occur more often in women than in men. Sharp and extremely painful, they generally affect one side of the head and may be associated with tearing of the eyes and nasal congestion. Their name comes from the fact that they tend to occur in clusters, happening repeatedly every day at the same time for several weeks and then disappearing for weeks at a time. Cluster headaches have been connected to a history of heavy smoking, alcohol use, glare and stress.

Sinus headaches cause pain in the front of your head and face. They are due to inflammation in the sinus passages that lie behind the cheeks, nose and eyes. The pain tends to be worse when you bend forward and when you first wake up in the morning. They're often accompanied by postnasal drip, sore throat and nasal discharge.

There is a common denominator in all types of headaches—*inflammation*. Different things may cause the inflammation in different types of headaches, but if we're able to extinguish the

inflammation, clearly the pain will subside as well. Anti-inflammatory remedies that may be helpful for headaches include APS II with White Willow, Nerve Eight and Feverfew. Drinking lots of pure water to flush toxins can also be helpful.

In each type of headache, this inflammation can be at least partially triggered by outside stimuli like stress, food sensitivities and chemical toxicities. So, the real key to getting rid of headaches is to identify these triggers and minimize exposure to them. Otherwise, the headaches just keep coming back. For this reason, one of the best defenses against recurrent headaches is to keep a headache journal so that one can learn over time to make connections between the headaches and what triggers them.

In addition, here are some specific suggestions for specific types of headaches.

Tension headaches are often stress related, so it's important for people who suffer from them to find ways to reduce stress in their life. They may also be a sign that the pH of the body is too acidic, so it's important to eat less acid-producing and more alkalizing foods. Massaging the head and neck areas not only relaxes muscles in spasm; it also promotes lymphatic drainage which eliminates both inflammation and the toxins causing it. The effect can be further strengthened by massaging the head, neck and shoulders with Tei Fu or Deep Relief oils, or a combination of Lobelia and Capsicum extracts.

Massage can help vasodilative headaches, too. Vasodilative headaches often arise from an overburdened liver and digestive tract. They may be a sign of food allergies or chemical toxicity. Liver cleanses can be extremely helpful in clearing toxins and reducing the sensitivities that lead to these headaches. Feverfew, Liver Balance, Mood Elevator and/or a good colon cleanse are remedies that may be helpful.

Chronic sinus problems are almost always linked to a congested colon, so a good colon cleanse like the Tiao He or CleanStart programs will be helpful. Decongestants like Fenugreek and Thyme or AL-J can help clear the sinuses and ease sinus pain.

Each situation is different, and will require different kinds of remedies to ease the underlying cause and get rid of headaches for good. For specific help with headaches, consult your local herb specialist, or some of the resources below.

Additional Resources

The Comprehensive Guide to NSP by Tree of Light Publishing
The ABC+D Approach by Steven Horne
The Little Herb Encyclopedia by Jack Ritchason
Nutritional Herbology by Mark Pederson

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APS II with Willow Bark

Nature's alternative to aspirin and other OTC painkillers

Before the advent of synthetic aspirin, a tea made from white willow bark was the treatment of choice among Native Americans, Europeans and others for reducing fevers, relieving headache and arthritis pain, and controlling swelling. Formulated by herbalist Stan Malstrom, APS II combines white willow with three other herbs, valerian, wild lettuce and capsicum, to create a natural alternative to aspirin and other pain relievers.

Compared to some of the high-powered medications developed for pain in the pharmaceutical industry, APS II is a mild pain-reliever, but it is also safer. It is a general anti-inflammatory agent, so it reduces swelling and eases general aches and pains. It also increases circulation to bring healing blood to injured areas. It is used for headaches, colds, flu, tension, arthritis, PMS and fever. Here's some specific information on each of the herbs in this blend.

White Willow bark

The famous ancestor of today's aspirin, white willow contains salicin and other salicylates—compounds which are similar in structure to aspirin (acetyl salicylic acid). Aspirin is made from coal tar and petroleum derivatives, according to a standard recipe given in many elementary chemistry books. Willow bark is much less acid than this synthetic aspirin compound, so it is easier on the stomach.

White willow bark is an analgesic, antipyretic, antiseptic and astringent. Noted by Hippocrates 2,000 years ago for its pain-relieving effects, willow bark has been used ever since to treat a wide range of symptoms including arthritis, bursitis, tennis elbow, colds, flus and fever. The salicylates in white willow bark inhibit prostaglandins that are involved in inflammation, which at least partially explains its ability to reduce inflammation, fever and pain. The astringent property of white willow means it contracts and tones tissues, so it also helps reduce swelling, which is part of the inflammatory process.

White willow also possesses a mild antiseptic quality and can be used as a poultice or fomentation for infected wounds, ulcerations, eczema, dandruff and other skin inflammations. A decoction of white willow bark is reported to make an excellent gargle for sore throats. And finally, the glucoside salicin in white willow is excreted in the urine as salicylic acid, which, in the case of kidney and bladder infections, acts as an analgesic on the tissues of the urinary tract.

Valerian root

Valerian acts as a sedative, antispasmodic and diuretic. Although its smell has been reviled since antiquity (Dioscorides,

the most famous of Greek herbalists, described it as being like "bad cheese or mildewed clothing") it has been widely used for its ability to calm and to induce sleep without side effects. Because of its antispasmodic, or muscle-relaxing, properties, valerian traditionally has been used to treat tension, headaches, fever, digestive problems, urinary tract disorders, insomnia, depression, heart palpitations, vertigo, sleep disorders, PMS, hyperactivity and hypochondria. Many of these treatments date back to the second century A.D. Valerian was used frequently in the U.S. until modern sleeping pills became widespread, and it is still commonly used in Europe and South America.

Wild Lettuce leaves

Wild lettuce contains small amounts of the same alkaloids that are found in the opium poppy. It was used during the American Civil War as a narcotic when opiates were not available. It has no addictive characteristics and is very mild. Lettuce has been used to treat intestinal disorders, headaches, stiffness in the joints and lower back, infertility and mild pain. This herb can also be used to calm the nervous system.

Capsicum fruit

A hot fruit, native to the western hemisphere, capsicum is best known in spice form as cayenne pepper. Studies have shown that people in cultures that consume large quantities of cayenne pepper in their food tend to suffer less chronic obstructive lung disease, fatal blood clotting diseases, and circulatory system diseases. Capsicum stimulates the digestive system and circulatory system and is good for cleaning out the bowels and intestines. Its properties are stimulant, tonic, carminative, diaphoretic and rubefacient. A potent immune system booster, capsicum may be used to treat colds, pneumonia, diarrhea, fevers, coughs and asthma. APS II takes advantage of its potent analgesic properties, which seem to work by blocking pain receptors both locally when applied topically and throughout the body when taken internally. It is also known as a powerful catalyst, which helps deliver and potentiate the other ingredients in this formula.

Dosage:

Take 1-2 capsules every hour as needed for minor pain. Not recommended for serious pain.

Selected References

A Hand Book of Native American Herbs by Alma R. Hutchings
Herbal Extracts by Dr. A.B. Howard
Nutritional Herbology by Mark Pederson
Materia Medica and Pharmacology by David M.R. Culbreth
Weiner's Herbal by Michael A. Weiner

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