

Neem:

*A hands-on guide to one of
the world's most versatile herbs*

By the Moderators of www.usingneem.com
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ABOUT THIS BOOKLET

Neem—while relatively new to Western civilization—is a cornerstone of Ayurveda, one of the world’s oldest medical systems, and has been used continuously for nearly 4500 years. The first two books of Ayurveda, dated two-to-four centuries before Christ, include nearly 100 references to neem.

Neem was known as *sarva roga nivarin* or “healer of all ailments”—in ancient India. Today it’s familiarly referred to as “the village pharmacy” in many tropical climates. The Kiswahili language of Africa speaks of *mwarubaini*—“the tree of 40 cures.”

Many Americans first learned about neem when an arm of the National Academy of Sciences published a landmark book entitled *Neem: A Tree for Solving Global Problems* in 1992. It presented the first two decades of research, including its rather spectacular range of benefits for health and healing—and in many other types of uses as well. A comment in that book sums it up beautifully—“Even some of the most cautious researchers are now saying that ‘neem deserves to be called a wonder plant.’”

Since then, more than 500 research reports from scientists working in universities from Bangalore to Baltimore have explored neem’s effects on an astonishing number of disorders. Perhaps most importantly, this research indicates that neem has few side effects when used as directed, and even at the extraordinarily high doses fed to laboratory animals it is considered “relatively non-toxic.”

NEEM: A Hands-on Guide to One of the World’s Most Versatile Herbs updates the 1992 report from the National Research Council and also brings you observations provided by people who have experienced health benefits first-hand from the various neem products available. We’ve done our best to make this broad overview as user-friendly as possible, with references to detailed information—for those who want it—available at www.usingneem.com.

www.usingneem.com is an interactive website created by a group of neem enthusiasts—healthcare professionals and volunteers who have experienced neem’s positive impact on their lives and their patients’ lives. Our goal is to integrate information on the wide spectrum of scientific studies along with reports from neem users.

As you learn more about neem, either by reading this book or researching other materials, be aware of these three points:

- Although researchers around the world are documenting the effects of neem when dealing with health disorders and agricultural benefits, very few studies to date have observed neem in humans or their domestic pets, or the use of natural neem products on landscapes in developed countries. The reason is simple. These studies are extremely costly, yet offer their sponsors little or no income potential because traditional plant extracts cannot be patented. For that, they would have to isolate a single extract from the rich variety of compounds that make neem what it is, and ramp up this extract's strength to create a conventional drug.
- Except when clearly noted, research on neem has been conducted in test tubes or on animals. What works in test tubes or laboratory rats does not always hold true for humans.
- The testimonials in this book are anecdotal reports of how other people have used and experienced the benefits neem. They have not yet been confirmed by clinical observers and cannot be regarded as established principles.

That said, we strongly believe that neem may help prevent or treat a wide variety of disorders, including many that are not successfully addressed by modern pharmaceuticals. Using neem also offers a cost-effective and non-toxic alternative to chemical pest control in both home gardens and agricultural settings.

Your thoughts, comments, and experiences are welcome, please contact us at moderator@usingneem.com, or write Sherrie Henne, Using Neem, P.O. Box 101, Olean, NY 14760.

Contraindications

- Neem oil, pressed from the seed, should be used only on the skin. Neem leaf and bark—in capsules, extracts or teas—can be used either externally or internally.
- Because one of neem's most widely reported effects is boosting the immune system, people with autoimmune diseases—including lupus and multiple sclerosis—should use neem only under close supervision of a healthcare professional to avoid the risk of worsening their disease. People who are taking immunosuppressive drugs (e.g., transplant patients or patients on the new biologic anti-inflammatory drugs) cannot take neem because it would counteract those essential drugs.
- Neem is used to treat diabetes in Ayurvedic medicine, so insulin-dependent diabetics must monitor their blood sugar levels carefully when using neem. For the same reason, anyone diagnosed with hypoglycemia must be extremely cautious and use neem only for brief periods.
- Because neem can have contraceptive effects, couples—women and men too—trying to conceive a child should not use it. Women who are pregnant or breastfeeding should also avoid using neem internally.
- Neem contains aspirin-like compounds that may increase the risk of Reyes Syndrome. Do not give it internally to children who weigh less than 100 pounds if they are running a temperature or have been exposed to a fever-causing illness. External use is safe at all ages, so lotions, creams and salves are appropriate even for very young children.

The information in this booklet is presented for informational purposes only. It is not to be used to diagnose, treat, prevent, or cure any illness or disorder, or to control any insects on plants, people, or pets. None of the research and anecdotal evidence presented here substitutes for consultation with an appropriate healthcare professional. Any statements represent the authors' opinions, based on extensive research and/or personal experience, but results may not be typical.

FOREWARD

By Mitchell A. Fleisher, M.D., D.Ht., D.A.B.F.M., Dc.A.B.C.T.

As a double board-certified family physician with over twenty-five years experience practicing the gentler art and science of integrative medicine, I've spent quite a bit of time and energy exploring the wide world of botanical medicine. I've covered the full spectrum—foraging, cultivating, researching, studying, and clinically testing many medicinal herbs—to learn what really works to help heal the myriad illnesses that plague us.

Several years ago, I was introduced to neem, the ancient herbal medicine that originated in India. This genuinely miraculous plant has been called the “village pharmacy” with good reason. It is one of the most useful and ubiquitously used herbs in the world. The list is impressive. Neem is seen as the leading candidate in the U.S. for a new generation of environmentally safe, natural, broad-spectrum pesticides to protect a wide range of food crops. It is used in a popular cavity-preventing toothpaste in Europe. Soaps, cosmetics and disinfectants imbued with neem oil are in specialty shops throughout the industrialized nations. Neem is a key component in many effective herbal formulations used worldwide for a variety of health problems. A simple search on the well-known medical database Medline lists nearly 100 research articles evaluating neem's many attributes.

I have successfully prescribed neem products for everything from dental abscesses to pneumonia, inflammatory bowel disease to acne, asthma to rheumatoid arthritis, psoriasis to sinusitis, and more. I have observed topical neem oil rapidly rid children and adults of lice and scabies infestations. I have experienced first-hand the soothing and healing effects of neem salves on infected poison ivy rashes and insect bites. A concentrated “supercritical” extract of neem has been instrumental in helping heal several of my patients with serious bacterial, viral, fungal, or parasitic infections that had not responded to conventional medical treatments. It has also shown promise in both preventing and treating malaria, an infectious disease that kills more children in the world than any other illness and for which toxic allopathic medicines all too often fail.

To summarize its beneficial qualities in a nutshell, neem—*Azadirachta indica*—possesses powerful anti-inflammatory, anti-cancer, anti-tumor, and broad spectrum antiviral, antibacterial, antifungal, and antiparasitic properties that help prevent formation of abnormal cells, eliminate infections, and accelerate healing in a broad range of health problems.

In the hundreds of patients I have treated with this extremely versatile botanical medicine, I have not observed a single adverse reaction. Neem is clearly one of the safest—as well as most cost-effective—herbal medicines available today. That is why I include neem products as one of my primary therapeutic components.

It gives me great pleasure to help make people more aware of neem's many benefits. This exceptional plant represents an important intersection of ancient healing ways with modern health care, and I encourage you to experience this extraordinary "village pharmacy" for yourself.

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AIDS

Elusive reports of people using neem to treat AIDS and its symptoms have been floating around for nearly 20 years—certainly long before modern medicine created the complex antiretroviral drug “cocktail” that made AIDS more of a chronic condition than a deadly disease in countries where patients can afford these expensive medications.

Two studies have finally validated these rumors and offer the prospect of an affordable alternative to the millions of people in tropical countries around the world who don’t have access to these proven pharmaceuticals.

The first—conducted jointly by Howard University College of Medicine and the University of Nigeria and partially funded by an agency of the U.S. government—studied the impact of neem leaf extract on malaria, cancer and HIV. It showed broad anti-cytoadhesion activity in all three diseases, meaning that it prevented the malaria-causing parasite and the virus causing AIDS from attaching to and then invading human cells, and prevented metastatic cancer cells from attaching to healthy tissue.

This 30-day study also showed clear antiretroviral activity in humans, with 10 HIV/AIDS volunteers showing statistically significant improvements in all key indicators. This included an increase in the number of CD4 T cell that the virus attacks, decreased anemia (hemoglobin increased by more than 20%), and an average weight gain of more than six pounds. Characteristic symptoms such as diarrhea and thrush were completely resolved. No adverse effects from neem were reported during the study or follow-up periods.

The second study, published in the *American Journal of Therapeutics*, showed even more impressive results over a 12-week period. Mean CD4 counts increased by an average of 159% for the 50 patients who completed the study. Other indicators of health—including weight gain, increased hemoglobin, and lower sedimentation rates, improved by an average of 20%. Neem produced no adverse effects and no abnormalities in kidney or liver function.

(The moderators of usingneem.com do not suggest that people diagnosed with HIV/AIDS substitute neem or any other herbal medication for treatment of a life-threatening illness.)

Report from a User

In June 2004 I was diagnosed HIV+, and since then (having always been somewhat of a curious fringe observer of herbal medicine and alternative therapies) I have been astounded and utterly overwhelmed by the ever-increasing body of research supporting these alternative healing modalities.

Unlike most HIVers, I have never taken any medications for my HIV infection, and have not taken so much as an aspirin in nearly the past two years. I have decided to focus my efforts and energies toward this challenge in a more coherent way, and in a much broader and unconventional fashion, by concentrating on a balanced diet, regular exercise, and a rigorous regimen of detoxification and purification.

What's more, I have made myself into somewhat of a human guinea pig because, in addition to following a healing path free of synthetic pharmaceuticals, I am evaluating the effects on me of several of what I call "Super-Foods/Super-Herbs," such as the oleo-resin of the South American copaiba tree, the ashwagandha root of Africa, the goji berry of China and Tibet, the original 8-herb formula for the Canadian Ojibwa tribe's Essiac Tea, and the multiple extracts from the neem tree of India. I have documented much of this in journals throughout my healing process.

I have found the potential health benefits of neem products to be astonishing. Since using neem my overall health—including my energy level, stamina, mental acuity, emotional calm, skin elasticity and clarity, digestive harmony, and general immune functioning (including my body's fundamental ability to fight off opportunistic infections)—has increased remarkably.

I have been using the neem seed oil on my skin, full strength for acute disorders and diluted with sesame oil in my daily routine of self-massage. I have also turned many friends and family on to the oil's anti-microbial and anti-inflammatory benefits, with enthusiastic response. In addition, a buddy of mine and I have been taking neem liquid extract with profound results.

Craig X, Fort Lauderdale, FL

(A more complete report from Craig is on www.usingneem.com/AIDS.)

“Anti’s” — A Long List

When researchers first began looking at neem about 50 years ago, they carefully detailed the biological activities of its various parts. That literature, of course, is not available except in specialized medical libraries. Current reports generally note that neem is recognized as one of a long list of “antis” including:

- Anti-inflammatory
- Anti-arthritis
- Anti-pyretic (fever)
- Anti-gastric (ulcer)
- Anti-fungal (see User Report below)
- Anti-bacterial
- Anti-viral
- Anti-tumor
- Anti-histamine
- Anti-feedant
- Anti-complement (similar to antioxidant)
- Anti-fertility
- Anti-carcinogenic
- Anti-anxiety

Although many of these “antis” are covered in specific sections, we are including the following report on vaginal Candida here because it affects so many women and can be extremely resistant to standard treatment.

Report from a User

As a holistic practitioner, it is especially frustrating when I cannot “heal myself” when I am the patient. It happened with a rare, for me—but not uncommon occurrence for many women—persistent yeast infection. My yeast infection symptoms began in the first week September 2007—burning, itching, painful coitus, and extreme vaginal discomfort. I am allergic to Monistat® creams, so this treatment was out for me. On Sept. 5 I began the following treatment protocol: oral live cultured unsweetened yogurts, elimination of dietary sugar and alcohol, and oral drug Diflucan®. Two weeks later my symptoms finally began to lessen, but they didn’t disappear. So next I tried two over-the-counter creams: Tioconazole Vaginal Ointment® and Clotrimazole Vaginal Cream®. My symptoms

waxed and waned but never completely resolved. I eventually went on Diflucan® again for two weeks, and then again after a two-week break.

On Oct. 4, a month after I had started my series of treatments, I called my gynecologist to have a culture done to see if perhaps this was actually a bacterial infection even though that was not my diagnostic impression. The nurse practitioner thought it was most likely a bacterial infection and sent me home with a prescription for an antibacterial cream. My symptoms continued. The culture results arrived on Oct. 9, saying “no” to bacterial infection and “yes” to a slight yeast infection. Treatment was to be Diflucan® for several months at two-week intervals. This was not very practical, and the first two-week cycle had almost no impact on my symptoms.

Then another holistic practitioner recommended neem oil to me. So on Oct. 13, 14 and 15, after everything else had been ineffective, I began my new regimen—a tampon soaked in neem oil inserted twice a day for just three days. My symptoms were virtually gone after the second day, and by the third day the symptoms had completely disappeared. After suffering intensely for over 1-½ months despite having tried all other products, using neem oil for three days eradicated the infection and changed what my life had become. I will never use anything else, and I recommend it without reservation to my patients for symptoms of yeast infection.

Anonymous, by request

Antioxidants

One of the hottest topics in the natural foods industry is antioxidants, probably because they play a critical role in preventing damage that plays a significant role in initiating chronic degenerative diseases like atherosclerosis, diabetes, heart disease, Alzheimer's and Parkinson's as well as speeding up the plain old (pun intended!) process of aging.

Oxidative stress is a natural process that occurs as cells produce energy. Free radicals, a by-product of this process, damage cells (including DNA) and tissue. The problem occurs when the body's resources for quenching these free radicals or repairing the damage they cause aren't adequate. Antioxidants are in many foods, and many of the health benefits of foods like blueberries, broccoli, and cranberries are directly related to their antioxidant levels.

The ORAC test (oxygen radical absorbance capacity), described online at www.usingneem.com, shows that all forms of neem are extraordinarily high in antioxidants, far higher than foods on the high-antioxidant lists. Along with its immune-boosting properties, high antioxidant levels may help to explain why neem is known around the world as "the village pharmacy."

NUTRIENT	ORAC per gram
Blueberries	62.20
Broccoli	15.90
Cranberry	94.56
Grapefruit	15.48
Neem Bark	476.00
Neem Leaf	357.00
Neem Oil	430.06
Neem/Supercritical Extract	
(8% in sesame oil)	114.00
Plums	62.39
Spinach	26.40
Tomatoes	4.6

Antiviral Compounds

From the common colds that sweep through offices and neighborhoods every winter to AIDS, West Nile and avian flu, viral infections are among the most challenging issues facing researchers worldwide. Neem is a traditional antiviral agent, with laboratory and animal research showing promise. While researchers still have not pinpointed precisely how neem works in this regard, it is thought that compounds in neem may interfere with the virus' ability to reproduce. With the AIDS virus, which is a lot more complex, research indicates that neem appears to interfere with the virus' ability to attach itself to a cell's membrane and then penetrate the cell.

From a more general perspective, neem will also help you feel better more rapidly because it boosts your body's production of white blood cells, which contain a variety of immune system cells—antibodies, dendritic cells, natural killer T cells, and several types of memory T cells—that participate in destroying viruses they encounter in your blood stream.

A group of studies from around the world indicate that neem:

- provides significant protection against the herpes simplex virus-2 in mice,
- inhibits growth of Dengue virus, which causes a hemorrhagic fever related to Ebola,
- interferes with the reproduction of the coxsackie B virus, from a group of viruses second only to the "common cold" as the most infectious viral agents in humans.

Reports from Users

Neem has changed my own life, and I have hours of stories and experiences from others to share. I have seen time and time again how neem oil has stopped herpes eruptions dead in their tracks, both oral and genital. The encapsulated supercritical extract prevents the herpes virus from cycling again.

Donna CS, via email

I've had recurring bouts of shingles over the years, so when one started last Thanksgiving I knew what was happening. I couldn't see my doctor for an anti-viral prescription, so I "loaded" up on the neem supercritical extract, taking 6 a day for 3 days. I know that's more than the recommended dose, but it cleared the shingles up as quickly as the much more expensive prescription medication.

Faith C., St. Petersburg, FL

Cancer

It is unlikely that even the most optimistic neem researcher just 15 years ago could have predicted the potentially life-saving anti-cancer compounds being identified now. Neem—or its isolated compounds—have shown impressive efficacy in killing a wide variety of human cancer cell lines in test tubes and animal models, including colon, stomach, lung, liver, skin, oral, prostate, and breast cancers, and Ehrlich's carcinoma. Although human clinical trials are still in the future, this early-stage research—combined with neem's few side effects, easy availability, and low cost in most parts of the world—is cause for excited anticipation.

Neem contains a number of active compounds that work simultaneously but by different mechanisms. This characteristic explains its demonstrated effectiveness as a pesticide, and also appears to be responsible for its potent impact on cancer cells in test tube cultures and tumors in animals. One of these documented mechanisms is apoptosis (programmed cell death), the body's mechanism for causing damaged cells to self-destruct. This creates an added advantage with cancer cells, because as they die, their cellular debris provides material that enables T cells to identify and destroy remaining cancer cells.

Two research studies indicate that neem may enhance the activity of certain chemotherapies while simultaneously reducing their side effects.

Neem's most significant impact may turn out to be preventing cancers in the first place. A study in the *World Journal of Gastroenterology* reported that neem leaf given to mice reduced chemically induced tumors by up to 87%. Neem has also been shown to produce substantially higher levels of antioxidants, including the carcinogen-detoxifying enzyme glutathione.

Much research obviously remains to be done before neem can be recommended for human anti-cancer use, but the consistently positive results from these in vitro and preclinical studies are inspiring tremendous enthusiasm and hope.

(The moderators of usingneem.com do not suggest that people diagnosed with cancer substitute neem or any other herbal medication for treating life-threatening illnesses.)

Reports from Users

After more surgeries than I can count, my dermatologist is amazed at the difference since I started using neem oil on my face. For the first time in years, he didn't want to cut anything off or even do a biopsy at my last visit.

Donna D., Brandon, FL

After our Rottweiler was diagnosed with bone cancer, we started feeding him neem. It helped the pain so much, we could stop using the prescription painkillers and he lived for many months longer than his vet had originally projected.

Steve D., Ocoee, FL

Several years ago I noticed two small "freckles," one on my left cheek and one on my upper right arm. I went to the doctor. "Oh, it is nothing, you are fair-skinned and just have freckles." I knew those were not just freckles, so I went to another doctor and asked him to do a scraping and test for cancer cells. Yes it was. He suggested I should have specialized peel surgery and that I start radiation and chemo. No way. I began self-treating with pure cold-pressed neem; when the two spots regained their normal healthy appearance, I went back for another test. No cancer. The doctor refused to believe the cancer was gone, but I will use neem for the rest of my life.

Janet S., Tijuana, MX

I had skin cancer surgery on my face a year ago, and the site became inflamed. Since I no longer believe in drugs or doctors, I sought a different solution. After several creams failed, I bought the neem lotion. Amazing results, so I went back for the pure oil—even better results. Now there's no more itching, redness or swelling. (The aroma took a little getting used to, though.)

Just recently, I started taking neem supercritical extract. Because I had read somewhere that if you inject a tumor with neem, the tumor will die. Since I've been a smoker (yes, now am giving that up too) and I have spots on my skin that are probably pre-cancerous, neem is my new best friend! I have high hopes that I will never have to undergo skin cancer surgery again.

Cheryl A., via email

Contraception

One of the most intriguing—but still largely undocumented and unproven in humans—is the use of neem as a contraceptive for both men and women. In developing countries—and for women everywhere concerned about the long-term impact of using hormones for birth control—finding a contraceptive method that is effective, safe, inexpensive, and easily available is truly a step toward solving global problems.

Research results from the University of Florida encourage continued study of neem oil as both a pre- or post-coital contraceptive, noting that it prevented in vitro attachment and proliferation of fertilized cells in concentrations as low as .05% to 1%. A study in the *American Journal of Reproduction* indicates that purified neem extracts contain compounds that stimulate an immune response (involving a type of T cell and macrophages) that terminates pregnancies in rats, baboons, and monkeys. Normal fertility was restored after 1 to 2 cycles.

A more recent report from the Indian National Research Development Corporation shows that 1 ml (about 1/5 teaspoon) of neem oil—a level that was non-toxic in other studies—given to rats, monkeys, and humans prior to or immediately after intercourse prevents pregnancies. It did not initiate any hormonal changes, and apparently works by stimulating an immune response against the fertilized cell. A contraceptive product that combines neem leaf with other tropical plants has been found highly effective in preventing fertilization in the test tube, and in preventing pregnancy in rats and monkeys.

We know of several couples who have used neem capsules—preferably both partners each taking a combination of leaf and bark—and successfully prevented pregnancy for at least 18 months. On the other hand, we also know of at least two couples who became pregnant while the man was using neem internally.

No method of birth control is 100% effective, but neem would certainly be a great alternative if we are able to document its efficacy. If you have had any contraceptive experience with neem, please let us know by writing us at contraceptive@usingneem.com.

Report from a User

I like to use neem as an adjunct to other natural family planning methods. I also have very regular periods most of the time, but have been 3 or 4 days late a few times over the last 8 years. When that occurs, I take 3 neem leaf capsules 4 times a day. By the second day, my cycle has always started.

Autumn B., St. Petersburg, FL

Note: We believe this is a safe option within the first 2 weeks after missing a period. But after that time it may be less effective, and in addition, the potential for birth defects in humans is not yet known.

Diabetes

Neem's extremely bitter properties have made it a cornerstone of Ayurvedic therapy for *pitas*, their term for disorders that result from overeating sweets. Some of the earliest medical studies on neem, beginning with a 1973 report in *Medicine and Surgery*, indicate neem supplementation in human patients enables insulin requirements to be reduced. More recent studies have focused on animals, including one indicating that the hypoglycemic effect of neem and the prescription drug glibenclamide are comparable, and also noting that neem may be beneficial in preventing or delaying the onset of diabetic disease.

Reports from Users

As a women's health Nurse Practitioner, I have many diabetic patients who come in with unresolved vaginitis. I immediately recommend that they switch their soap to neem, and their infections typically clear up quickly.

Valeria Ozsú, NP, Fairfield, CA

My sister and I boil 1 quart of water and then add 3 neem tree leaves and simmer for 3 minutes. We then drink a little cup of the infusion as tea. My sister was diagnosed with Type 2 diabetes after she went to the emergency room with a blood sugar level of over 500, and I am a borderline Type 2 diabetic. Since we started drinking the neem infusion our glucose levels have dropped significantly. My sister's doctor could not believe that after just three months of medical treatment (diet and glucophage) her sugar blood level was down to 90. As for myself, I keep my blood sugar at healthy levels with diet and exercise, but I noticed that this alone is not enough. If I do not drink the tea, my blood sugar level goes up.

Rey G., San Diego, CA

My father, who has diabetes, has had fewer lows and highs in his sugar levels since starting neem. He's not one to try new things, nor would he comment on them, but he's making sure that he and Mom both get their capsules each morning and evening—so I know he's seeing the difference.

Jane G., Yorkshire, OH

Gum Disease

We'll admit—most of us have relatives and friends who think we've gone a little overboard with our passion for neem. "If it's that great, everyone in the world would be using it," they say. So it's especially gratifying when neem fixes something for one of those doubters—particularly when it spares them from something painful, and painfully expensive, like periodontal surgery.

And with gum disease, the results with neem are typically so rapid that there is a clear cause-and-effect relationship.

Several studies confirm this benefit, including an early report from the University of California School of Dentistry that measured the in vitro impact of neem stick extract on reducing the bacteria that cause plaque formation.

When a 6-week trial with adult men in India compared a prescription antibacterial mouthwash (chlorhexidine gluconate) with a dental gel containing neem leaf, the neem gel was significantly more effective. Another study showed that neem reverses some of the pits and fissures that can progress to cavities.

Reports from Users

I have been a neem fan since I was told by the dentist that I needed to have my teeth scaled (scraped below the gum line), which is something I had undergone a number of years ago and swore I would never go through again. I have been listening to a program on the radio hosted by Dr. Bob Marshall for a few years. He said that a few drops of neem oil and a pinch of neem powder massaged into the gums would close a 10 mm pocket in about 14 days. I used it for even longer than that, and at my next dental appointment they were totally amazed at the healing that had taken place. I was too!

Ginny P., Nashville, TN

I am from India and I grew up eating neem leaves. I was so thrilled when I found out that I can get a neem tree in the USA.

Before I got the neem tree, I went to my dentist who said that I had plaque buildup needed a very expensive deep cleaning. I kept postponing it. In the meantime, I got a neem tree and began to eat 10 leaves in the morning and 10 in the evening very religiously.

My dentist is so surprised to see that I don't have any plaque on my teeth now. My gums are very healthy. It remains part of my daily routine. I take the leaves with me when I go on vacation. After eating the leaves, my mouth feels so fresh that

I don't even feel the need to brush (I do it anyway).

Srinivasan M., San Jose, CA

Ten years ago, I suffered a serious back injury. My health became bad and I developed a serious gum disorder from the drugs I had to take. By the time I was finally able to see a dentist, I was in real trouble. They would be able to restore my gums and teeth, but it was going to cost \$7,000.00

After reading about neem, I bought a pound of the leaves. I made up my mind I would attack this diligently, and did so by brushing twice a day, sometimes more depending on how my painful mouth could tolerate it, and afterwards soaked my mouth in some neem tea 5 to 6 times a day. Along with this, I drank some weak neem tea once or twice a day. I must say, after a couple of months my pain was gone, the gaps in my gums closed up, and the infection was gone! I also felt better.—like I had been cleansed of many toxins—and I have regained more energy as well.

I went to visit the dental hygienist. She was amazed at the improvement! My gums are not absolutely perfect, but there was a 75% improvement. That's good enough for me.

Margene T., Erwin, TN

My great neem experience was when I went to the dentist. I do not have insurance, so it had been about two years since my last visit. To my dismay, I had some swelling around my gums and the hygienist scheduled an appointment for a periodontal scraping. I immediately purchased the neem toothpaste and the herbal mouthwash and started using them religiously.

Not only did I notice that my teeth were becoming whiter, but at my next scheduled appointment the hygienist was amazed at the improvement in the health of my gums. Instead of the full procedure, I only needed several areas scraped and just deep cleaning on the rest. At my next appointment I was given an excellent report and only needed a normal cleaning. I am happy to give a big A+ to neem.

Jennifer J., via email

Immunostimulatory Compounds

Long before healers had any idea how the human body really fights disease, they prescribed neem for disorders as diverse as leprosy, gastro intestinal problems, malaria, ringworm, diabetes, colic, anorexia, boils, epilepsy, and ulcers. The first two books of Ayurveda—the Caraka Samhita and Susruta Samhita—include nearly 100 ancient references to neem that date back two-to-four centuries before Christ, making them among the oldest written documents in the world.

Part of that reliance on neem came from having a relatively limited repertoire of treatments, but many of those ancient prescriptions were based on the very real observation that they worked—and these wise men knew that aiding the body's ability to fight off disease and repair injuries is always a good first choice.

Today's scientists have begun to prove in the laboratory what healers have observed since ancient times about neem's ability to treat various kinds of infectious problems and diseases. These studies documenting enhanced immune system activity began to appear about 15 years ago. Because the immune system is extremely complex, it will take scientists some time to work out precisely how neem works to make it more responsive. At this point, there is preliminary evidence that it increases the numbers and/or activation of a variety of cells that have different functions—or address different kinds of threats—in an effective protective immune response: helper T cells, cytotoxic T cells, natural killer cells, monocytes and macrophages and antibodies.

In addition, we know that neem directly kills or impairs a variety of disease-causing microbes (see AIDS & Neem) so it packs a double-fisted punch.

Reports from Users

Whenever I experience the slightest sneeze or sore throat, or have to visit a home wherein the members are sick, I take 4 powdered neem capsules 3 times a day. This immediately stops the sneezing and the sore throats if I already was experiencing them, and prevents me from getting sick from my exposure to ill people. I feel neem fights all sorts of unidentified intruders into my body chemistry and I am really grateful that I can purchase it at my local health stores. And from its very long history among indigenous people using it for their health, I feel very safe when I use it to help me keep my health so strong that I can endure and conquer any invasion of bacteria/fungi into my body.

Dr. Edna Mac Donald, Bakersfield, CA

I have been taking the neem leaf capsules for about 2 years to treat seborrheic dermatitis. Also, I have not had a cold or flu in that time.

Pat F., Omaha, NE

About 3 years ago I discovered neem while searching for the Echinacea/Goldenseal® combo for a cold I had. I got better immediately! Ever since then, whenever I feel a cold coming on I take it, and I don't get sick!!

Rachel R., via email

I just wanted to let you know how neem has helped me. I was looking for a natural way to help improve my health. I researched different herbs, and the one that seemed to stand out was neem. I was rather skeptical at first, but decided that I would try it for 3 or 4 months and see if what I had read was really true. Well, I am still taking the capsules every day and have been for almost a year now.

I used to get colds and flu several times a year, but since I started taking neem leaf capsules, I have had only one cold in the last year. I think that this is incredible since I am a waterfowl hunter. This means I'm out in the cold, snow or rain, sunshine or clouds. I feel better and the little aches and pains don't bother me anymore. I would recommend this to any sportsman who is out in the inclement weather like I am.

I have told all my friends and family about neem and will continue to do so. I have exchanged several e-mails with a PhD from India about neem and was told the following: "Our research shows that taking one neem capsule a day for a year will double immune system strength." Well, I am a believer now.

Mark H., NE

Insect Protection

This section is particularly challenging to write because government regulations currently limit our ability to share experiences about the agricultural value of unprocessed neem oil products for controlling insects, and especially about its benefits as a personal insect repellent for humans (mosquitoes) and pets (fleas, ticks). The problem is that the U.S. Environmental Protection Agency (EPA) hasn't yet formally approved these uses for products using neem or neem oil in their natural unprocessed state.

So far, the EPA has approved two types of processed neem products for agricultural and gardening (outdoor and indoor) use. Both are derived from the natural oil found in neem tree seeds. When the natural oil is removed from the seeds and treated with alcohol, virtually all of the azadirachtin (and related substances)—considered to be the key insecticidal ingredient found in the neem tree—separate from the oil. (Azadirachtin acts by disrupting the insects' reproductive cycle.) What's left is called clarified hydrophobic extract of neem oil. This azadirachtin-free extract, and a handful or so of products containing azadirachtin, are the two types of neem-derived products that the EPA has approved so far. Their fact sheet/www.epa.gov/pesticides/biopesticides/ingredients/factsheets/factsheet_025007.htm describes the usefulness of each extract, and their lack of any harm (to the environment, wildlife or people) or visit <http://pmep.cce.cornell.edu/profiles/extoxnet/24d-captan/azadirachtin-ext.html> for toxicology data by the Extension Toxicology Network maintained at Cornell University.

For the immediate future, you won't find any of the all-natural neem products sold in health food stores labeled for protection of any kind against insects. (We know of at least one small company that was drastically fined for allowing its all-natural neem products to be labeled as an herbal outdoor spray and flea powder for dogs!) But there is definitely hope for the future. At least one company is working with the EPA to gain approval for an all-natural product, but the process was not yet complete by the time we went to press.

That said, we'd like to quote from some reliable sources that will give you a sense of neem's potential in this area. (You may want to refer to additional information on pp 42–43.)

Perspectives

Beyond Solving Global Problems, published by the US Board on Science and Technology for International Development, an arm of National Research Council that is funded through the U.S. government, noted that:

“By 1990, researchers had shown that neem extracts could influence almost 200 insect species. These included many that are resistant to, or inherently difficult to control with, conventional pesticides: sweet potato whitefly, green peach aphid, western floral thrips, diamondback moth and several leafminers, for instance.

In general, it can be said that neem products are medium-to-broad spectrum pesticides of plant-eating (phytophagous) insects. They affect members of most, if not all, orders of insects...”

The full report is available at no charge at http://books.nap.edu/openbook.php?record_id=1924&page=39

Dr. Andrew Weil, founding director of the world-renowned Program in Integrative Medicine at the University of Arizona and a pioneer in teaching about the varied benefits of plants, recommends neem as a pesticide for organic gardens in “Gardening Tip—Reduce Pests Naturally.” <http://www.drweil.com/drw/u/DT/DailyTip3355/>

“If you are planting an organic garden, try natural pest control with nontoxic products such as pyrethrum or neem.... Neem is non-toxic to animals and humans and beneficial to bees. Though neem products are somewhat more expensive than most synthetic pesticides, they are worth it for both personal and environmental health.”

The Journal of the American Mosquito Control Association published a comprehensive report in June 1999 detailing the research on controlling insects that attack people, pets and livestock.

“The landing and bloodfeeding effect against mosquitoes was investigated under laboratory and field conditions. . . . Even at

concentrations as low as 0.5 and 1%, strong repellent action was observed when the material was applied to the skin. At a concentration of 2%, no anophelines bit and the protection provided was 100% during a 12-hour period. . . .

Fairly good results were achieved with flea control by neem products. . . .

Concentrations of 2% neem oil mixed in coconut or mustard oil provided 100% protection against *Phlebotomus argenitipes* (sand fleas) throughout the night under field conditions.”

Jim Evans is a nationally recognized consultant on fitness for seniors, hosts a popular radio talk show in San Diego, and chairs the local advisory council for the Retired & Senior Volunteer Program.

“If you are sensitive to commercial insect repellents or hesitant to use them on your skin, my personal recommendation is to try neem oil. Neem oil is extracted from the seed of the neem tree, an ancient tree indigenous to India, and has been used for thousands of years as an insect repellent. It is entirely natural and amazingly effective in repelling insects for both humans and animals (yes, you can even bathe Fido in it). I often work outside on my small acreage in California where I am regularly exposed to mosquitoes, gnats, and other biting insects. Recently I applied some neem lotion before cutting brush on the “back forty.” It was a hot day, and within minutes I noticed a cloud of gnats heading toward me. “Uh oh,” I thought. But to my surprise, the gnats turned around immediately upon sensing the neem and headed in the opposite direction. I continued working for several hours without a single bite. This made me a believer.”

Note: Manufacturers are continuing to work with the EPA to develop approved products using environmentally safe, natural and organic ingredients, but it is a slow process. If you'd like to be part of this effort, we invite you to share your experiences on www.usingneem.com.

Liver Protection

Although neem has often been recommended as a blood cleanser throughout its long history, the reality emerging from recent research is that it actually appears to do this by helping to protect the liver—which is the body’s detoxifying organ—from damage. Protecting the liver enhances its ability to carry out various metabolic and protein production functions, including detoxification.

The liver is the human body’s largest gland and second largest organ after the skin. The liver filters about one quart of blood every minute, removing and breaking down toxic substances and most medicinal products, and then slotting much of this for elimination via the intestines. A byproduct of this detox process is potentially harmful molecules called free radicals that are neutralized by antioxidants. If free radical levels are particularly high and/or antioxidant levels are too low, the result is liver damage. The liver is amazingly resilient, but the more resources it has to devote to self-repair, the less able it is to complete its various functions, including detoxification. And in any case, the greater the antioxidant pool, the less oxidative stress there is on the liver.

Our antioxidants come from within the body and without. Some—like glutathione—are endogenous, meaning we produce them ourselves. Others—like vitamins C and E—must come from foods and supplements.

Research indicates that neem leaf minimizes chemically induced liver damage in rats, and is able to do so by boosting endogenous antioxidant levels, especially glutathione. Consistent liver-protective results were seen with a variety of toxic chemicals used in different experiments. Some studies have identified antioxidant compounds in neem itself that may add to its chemoprotective abilities.

Neem does not appear to cause liver damage even at the extremely high doses used in a study published in 2003 that tested the safety of neem for insecticide use.

Malaria

Some of the world's oldest writings—dating back as far as 2000 BC—describe using neem to treat malaria, a parasite-caused disease spread by mosquitoes that is a major cause of illness and death in tropical countries. In fact, the use of neem tea to treat malaria has even spread to tropical countries—like Haiti and Nigeria—where the neem plant is not native.

Still, this serious tropical disease causes from 300–500 million new cases and 1–3 million deaths, primarily among children in sub-Saharan Africa. Roughly 10,000–30,000 U.S. and European travelers to the tropics are infected with malaria.

A half-dozen test tube studies have produced extremely positive results. The most recent of these studies was a head-to-head test against chloroquine, the standard anti-malaria drug—which the parasites are developing resistance to. Neem won hands down, including a test with chloroquine-resistant parasites.

While questions still remain about the best standard dosage for humans, practicing herbalists in the U.S. who we interviewed for this booklet do recommend neem to Americans visiting countries where the parasites are rampant. They typically prescribe 20 drops of neem extract once daily for the 10 days before and after the trip, and 20 drops twice a day while they are away.

(CAUTION: The moderators of usingneem.com do not suggest that people planning a trip to a country where malaria is prevalent substitute neem—or any other herbal medication—for the prevention or treatment of life-threatening illness. Neem should be added to, not taken instead of, appropriate protective drugs.)

Pain

The most commonly used pain relievers for arthritic and other types of chronic pain—including aspirin, ibuprofen and naproxen—are nonsteroidal anti-inflammatory drugs (abbreviated as NSAIDs—pronounced “EN-sades”). They are helpful for many people but can cause moderate to severe gastrointestinal side effects: indigestion, abdominal pain, nausea, and rare but life-threatening abdominal bleeding. These drugs can damage the stomach’s protective mucous layer, which allows digestive acids to cause further injury. (Although newer drugs like Celebrex® are more precisely targeted to avoid affecting the stomach lining, the problem turned out to be less frequent, but certainly not eliminated among patients taking those drugs.)

Because a significant number of people who suffer with disabling arthritis are either not helped by NSAIDs or cannot take them, anecdotal reports of amazing new treatments abound, but very few studies confirm their reputed benefits.

In both of these situations, neem is different. It can reduce pain substantially. It is actually protective to the stomach lining at the same time. And these actions are backed by research data.

Neem has traditionally been used as an anti-inflammatory treatment with some more recent researching confirming this use. According to a study published in the *Journal of Indian Medical Research*, compounds found in neem compare favorably with several corticosteroids in treating inflammatory conditions such as arthritis. The primary difference is time, because it can take 3 to 4 weeks for neem’s efficacy to become apparent.

Neem bark has traditionally been used as an analgesic, and at least one animal study suggests that it may act through complex neural pathways in both the central and peripheral nervous systems. Anecdotal reports from users, particularly people suffering with chronic pain, suggest that it can be as effective as aspirin in treating joint pain or carpal tunnel syndrome.

A very important research report—that the media unfortunately ignored—appeared in 2004 describing studies from India and Hong Kong indicating the potent anti-ulcer properties of neem bark. This report, in the international peer-reviewed journal *Life Sciences*, described neem bark’s significant gastro-protective effects in humans: it decreases gastric acid secretion by 77%, gastric secretion volume by 63%, and pepsin activity by 50%. This trial in humans confirmed previous animal studies showing that neem bark protects the stomach’s mucous lining and prevents oxidative

damage. Another study suggests that neem bark used in combination with NSAIDs could be an effective combination to treat chronic pain while protecting against potential gastrointestinal injury.

Reports from Users

*We rescued a young Rottweiler with congenital joint pain. We had one shoulder treated surgically, and when the other shoulder started causing extreme pain, an orthopedic vet told us there wasn't anything more he could do to help. We'd just read *Solving Global Problems* and decided to give neem a try. We saw a visible difference in his gait just days after we started putting a weak neem tea on his food."*

Vicki P., Brandon, FL

I have had a painful joint condition for many years, with pain that migrates from one set of joints to another. After repeated falls on concrete floors, my left knee swelled and made walking difficult. I limped and dragged that leg for a couple of years. When Vioxx® was taken off the market, things got much worse.

Last February, I heard about neem tea at an herb festival at the county extension facility. I started drinking it and slowly but steadily the pains decreased. The swelling in my knee went down and I felt good enough to go for physical therapy. I can now walk normally. I'm so much better I consider it a miracle. I'd much rather drink a cup of tea each day than cope with that terrible pain again.

Jane J., Largo, FL

Several decades ago I severely damaged my left foot in a skiing accident that crushed my navicular bone, which wasn't accurately diagnosed until I had mistreated it for some time and greatly exacerbated the consequences. I developed severe degenerative arthritis with ankle joint deterioration and large bony growths. I was eventually in continual pain when walking, which became bearable with Vioxx® much of the time, and was still intolerable some of the time. And "bearable" meant that I could walk, but with a limp and discomfort. I began taking supercritical neem in late June 2004, then stopped taking Vioxx® in early August after realizing that I was no longer in any pain. And I discovered that I no longer needed Vioxx®. I've been pain-free ever since! Truly a miracle, after all those years. (And coincidentally, Vioxx® was taken off the market that next month.)

This neem also made a dramatic improvement in my arthritic thumb joints. I am no longer limited in how I use them.

My son, in his mid-20s, takes the supercritical neem for his achy knees. He's

played serious soccer since age 5, and his knees have taken a beating. He finds the neem extremely helpful.

Sheila H., NYC

Since I started drinking neem tea, my arthritis pain is completely gone. I had not expected side benefits, but my gums also stopped bleeding when I brush my teeth, and I started to sleep well. I tell everyone at my church now about neem. So far I've only found one person who neem didn't help. I've also given the capsules to my mom, who would normally be chair-ridden from the heat and humidity that we've been having, and now gets up to do several things per day.

Jane G., Yorkshire, OH

I recently began using neem leaf extract every day (15 drops, 3 times a day). My arthritic pain slowly became less after one week's use. Now, not quite a month later, I can honestly say I do not have any pain in my elbow, which is where it was the worst. I was having constant pain (that 6 Tylenol® with codeine made only bearable) and my doctor was talking about giving me a cortisone shot. I am so VERY HAPPY to have discovered neem. It changed my life more than you could ever know.

Tina N., Chilliwack, BC, Canada

One of the uses of neem is a treatment for the pain involved in fibromyalgia. I have given neem to a lady in her 70s who suffers from fibromyalgia. Her symptoms have dramatically improved. She can wake up in the morning feeling refreshed and have normal bodily function throughout the day, something she could not do for some years. Since there is no cure for fibromyalgia, any supplement that can improve the condition would be most welcome. Neem seems to have an important role, if not a cure, for this condition.

Djong Y., Seoul, Korea

We originally starting buying neem because we were told it helps with migraines. Clifton takes 8 neem pills a day. He uses both the bark and leaf, alternating bottles, and there has been a significant decrease in his headaches. He swears by this product because over the years, nothing else has worked.

Pam P., N. Ogden, UT

Parasites

One of our first experiences with neem and parasites occurred with a friend who had served two tours in Vietnam and still carried enough shrapnel to set off metal detectors at airports. He was clearing some land and came down with a severe case of chiggers that had him in bed with potent pain relievers. We took him some raw neem oil.

When we called him the next day to find out how he felt, he said, “Man, this stuff stinks!” “But did it work?” we wanted to know. “Man, it stinks!” he repeated. But he finally admitted that the itching was gone.

And though neem manufacturers are much more able now to eliminate—or at least mask—neem’s signature scent, there are still no products on the market that government regulators permit to be labeled as a treatment for parasites.

Despite this, Dr. Andrew Weil, founding director of the internationally renowned Program in Integrative Medicine at the University of Arizona, is a strong proponent of neem both outdoors as an insecticide in organic gardens, and topically as an alternative to conventional treatments for scabies and head lice. In an e-newsletter available at www.drweil.com, he wrote that:

*“I recommend using neem, a natural, nontoxic pesticide made from **Azadirachta indica**, an Indian tree.... Neem products are available at health food stores and on the internet; make sure they are intended for medicinal, not cosmetic, use.”*

As researchers continue to document neem’s anti-parasitic efficacy, it will be especially important for the increasing numbers of people who develop sensitivities to lindane, the insecticide in commonly prescribed treatments, and in those areas where insects are becoming resistant to insecticides.

Reports from Users

Nine days ago, I came in contact with some kind of parasite. The bites multiplied rapidly and the itching was intense. I was particularly concerned because I’m diabetic, but my doctor couldn’t see me for almost 10 days. I couldn’t wait that long. I found neem by web-surfing and decided to give your product a try as an interim measure until I could see my doctor. I am pleased to tell you that not only did it work, but it did so with astonishing speed. I have been using the neem scrub,

oil, and soap for four days now, with no new bites for two days and the existing bites are fading quickly. Thanks for your help.

Mike H., VT

We have several neem trees growing in our South Florida yard. After a series of outbreaks of lice left the students in our children's school unable to continue using the medicated shampoo for safety reasons, we provided the school with neem tea made from our trees' leaves. The school nurse told me afterward that it worked.

Ellen F., Lantana, FL

When I was wearing shorts on a hot day several years ago, I was painfully bitten several times on my calves by something I could not see. Over the next two weeks, I began to experience—among other sensations—intense itching body-wide, as if something was crawling under my skin. I saw doctors, went for medical tests, went to the Board of Health, hired exterminators, and sent samples of fibers from clothing to the State Agricultural Department for testing, but all the tests came out negative.

The miserable symptoms continued. I was treated with various topical drugs, with an anti-allergy prescription, and at one point with a very strong oral medication commonly given to dogs and cats for fleas. All these cost me a pretty penny, but were of little if any help.

On the internet, I thankfully discovered neem capsules and shampoo, which have essentially kept me sane for the past several years. I shudder to think how I would have managed without neem.

Sharona M., Amherst, NH

For the past 5 or 6 years I have suffered from Morgellon's Disease, an unexplained debilitating condition that is emerging as a public health concern (see www.morgellons.com for more information). Supercritical extract of neem leaf, plus neem bark and neem oil, have done more to help control the intense itching, biting and stinging sensations than anything else I have tried. If someone suffering from this disorder reads this note, please feel free to contact me at jenna@usingneem.com.

Jenna H., Minneapolis, MN

Skin

Skin care benefits of neem, both therapeutically and aesthetically, may be among the most significant uses of neem although they have received little attention from researchers to date.

Still neem has been recognized for centuries as an effective agent for treating a great variety of skin disorders. In ancient times it was regarded as an effective treatment for leprosy, a serious bacterial infection that still plagues parts of the world. When taken internally, neem's liver-supporting properties can result in a clearer, more radiant complexion.

Neem appears to be effective for treating psoriasis and eczema, possibly because its long chain fatty acids and glycerides quickly penetrate the skin to help retain needed moisture, soothe skin, prevent irritants and germs from entering, and help reduce inflammation. Its long list of "Antis" (see p. 9) also aid problem skin, and high levels of antioxidants help protect skin from environmental toxins, from sun damage, and can help to slow some aging related changes.

Reports from Users

I began using neem last year after I developed a skin problem that nothing had helped. It started with a rash that lasted for 5 days. Two weeks after it subsided, I started getting itchy spots on the back of my neck, lower abdomen and groin. First I saw a family practitioner, but the antibiotic ointment he prescribed had no effect. My gynecologist had no idea what it was, and all tests were normal. After 3 more weeks of intense itching, I felt desperate and went on a 6-day carrot juice cleanse. The improvement was minimal. Then I went to a dermatologist who said I had a bacterial infection and prescribed an antibiotic. Still no relief from the crazy itching and mysterious bumps. I was starting to give up.

I came across neem on the web. I read all the claims of its healing properties for skin, among many other things, and I was so impressed by all the things neem could do that I had to try it. I got the cream at my local health food store, and after just 3 days my itchy bumps were GONE! And I noticed that if I stopped applying the neem cream, they came back. So I started taking the extract internally while using the cream. This worked, and eventually I was able to stop using neem. I never found out what the bumps were, but neem finally healed me. Thank you!

Juniper S., Alaska

I have been using neem products on my skin for over a year, and want to let you know how much benefit I've had. This is the first summer I haven't experienced skin "bumps." In the past I had to have them removed by a dermatologist. Most of them were "zapped" with frozen nitrogen, and last year a rather large one was surgically removed from my calf, which left a hideous scar.

My neem lotion has not only prevented any additional lesions, it also got rid of my scar and eliminated a similar lesion on the front of my other leg. The warts I had on my ankle and knee disappeared as well. Thank you ever so much for a wonderful product.

Diane J., Seffner, FL

We used neem for my daughter when she had chicken pox. We put neem and salt in her bath and she did really well. It greatly reduced the itching and she didn't develop any infected areas. I love neem for scrapes and burns. It heals cuts fast. I purchased some neem with shea butter on eBay and love it for cracked feet—it works like nothing else I have tried. Neem is great stuff!

Tonya S., Highlands Ranch, CO

I am 38 with extremely dry skin and a small acne problem. For years I tried Clarins®, Lancome®, Origins® and Kiehls® and never experienced the results that I have with the neem products. I began using neem products over a year ago. Neem soap and lotion have made a visible difference in my skin, and at a fraction of the price of department store products. I am extremely happy.

Janet H., via email

In 1996 I read some remarkable things about neem. It seemed much too remarkable to be believed, so I set out to do my own personal research. I replaced all the soap in our house with neem soap. My son's acne quickly cleared up. Then I purchased some neem extract. I took 10 drops of neem in a cup of tea daily. Within one week I began to get comments about how beautiful my skin was.

I convinced a friend who had eczema to try some on an affected area on his hand. The area cleared up. I also used neem for an infected cut, a wart, and a bad rash. It cleared all of these up.

Diane N., Tampa, FL

I used neem anti-itch oil on a sore on my face and it disappeared. We used the anti-itch for a bad case of poison oak and it went away within two days. I also use the shampoo and conditioner for my itchy scalp and have used the anti-itch for

a hair and scalp treatment, they work wonderfully.

Wendy S., Carmel, CA

I had very bad skin on my feet. I don't know if it was athlete's foot or just horribly dry skin. Sometimes the skin would crack and bleed, which made walking uncomfortable. And forget wearing sandals or going barefooted—I was too embarrassed. I started using the neem salve, and now I can wear sandals. I put it on at night then put cotton socks on, and what a difference. The skin has cleared up. You can add me to your list of satisfied customers.

Roberta T., Tallahassee, FL

I am delighted to report that neem cream, on two separate occasions, has been a single-application cure for my athlete's foot.

Jake J., Yakutat, AK

I have had bouts of scalp problems all my adult life, and after I developed a really bad case of seborrheic dermatitis, I started using neem oil mixed into my shampoo. Within three weeks my scalp was clear. This is the best my scalp has ever been. I have been using neem oil in my shampoo for two years now. The dermatologist that I had gone to before I started using neem oil could not believe how healthy my scalp looked, because he had seen it at its worst.

Pat F., Omaha, NE

With every seasonal change in the Pacific Northwest, my skin seems to take a terrible beating, especially my scalp. It gets itchy, tight, dry, and then sore. This year, the itchiness was so unbearable that I began taking an over-the-counter antihistamine. I prefer not to take medication, if at all possible, and searched for a product to relieve my extreme discomfort.

I ran across recommendations for neem shampoo and conditioner on the internet. After so many other products had failed, I was skeptical but decided to give them a shot. I have to say that instantly after the first use, my scalp felt relaxed and the burning/itching calmed way down. After continued use, my scalp feels great and my hair looks the shiniest it ever has! Most scalp treatment products left my hair weighted down or dingy looking. I thank you greatly for these products and for the freedom from antihistamines, which left me tired and groggy for work.

Kimberly J., Sherwood, OR

I am particularly impressed with the neem oil salt scrub. Pretty amazing

stuff. None of the many other oils I have tried for my dry skin have helped this much.

Michele M-H., Lighthouse Point, FL

My youngest son, who is four now, developed eczema in the middle of his back within the first month after his birth. The dry skin patch began to darken and started to become inflamed and irritated and horribly itchy, causing plenty of sleepless nights for all of us.

The pediatrician prescribed, among other medications, a topical steroid-based cream. The medicine was not only rather expensive but, more importantly, the potential side effects were unacceptable. These medicines, although topical, must still be processed by the liver; which could adversely affect a newborn's liver function. During the many long days of researching eczema and herbal remedies, the word "neem" kept surfacing. So after careful consideration and ample research, I decided to give neem a try.

The cold-pressed neem oil, hair shampoo, hair conditioner, lotion, and soap were the first products purchased. The cold-pressed neem oil has a garlic/peanut oil smell, and it's kind of pungent. After bathing him with the neem soap, we applied neem oil to my son's worst eczema patch (in the middle of his back) every night. We were VERY pleased with the results.

The steroid-based creams seemed to overly dry his skin and were only partially effective. When we started the neem oil, the nightly itching completely ceased almost immediately. And after a couple of weeks the eczema patch was a non-issue. I find these neem-based products are also great for overall skin maintenance and a plethora of skin irritations.

Michael L., Harvey, LA

I have been using neem for psoriasis for one year. I have suffered for over 20 years with horrible scaly, dry and cracking skin that covered 75% of my body. I am only 41, so this had been difficult. It has meant NOT wearing skirts, swimsuits, shorts or short-sleeve blouses. Since using neem, I have little to no psoriasis on my body. Thank you for the most wonderful cream ever. I have spent years and many dollars going to dermatologists and trying new creams, ointments, pills and light therapy. This is the only product that I use now, and will continue to use due to its AMAZING effects on my skin.

Lisa C., Bolingbrook, IL

I have used neem cream on my psoriasis, which I have had recurrent bouts of since my teens. When I use the neem regularly, my skin clears up and stays clear.

I keep one jar of neem cream in my home office, one in my bedroom, and one in my office at work. My husband doesn't normally use cream, but his hands were particularly sore and cracked. One day and I gave him my cream to use. He said that his hands felt better almost instantly, and several days later they were no longer cracked and sore.

Susan S., Saint Petersburg, FL

I received an assortment of neem products as a gift some months ago. My favorite was the Therapeutic Neem Oil Nail & Cuticle Treatment. I had problems with my cuticles for years (dry, peeling, couldn't stop picking at them). Nothing helped because nothing lasted. The neem treatment not only smoothed away the dry bits of skin with salt granules, but the oily coating it left on my fingers smoothed them out so I was not inclined to pick at them or bite them. It was a tremendous relief, and my cuticles are gradually improving. This is solving a problem that had gone on for 30 years!

Marylyn C., Huntsville, AL

Tummy Troubles

As with gum disease, offering neem to skeptical friends and family suffering from various and sundry “tummy troubles” is a sure way to make converts. Some examples follow.

Abdominal Upset

One of neem’s most highly credentialed supporters is the renowned herbalist, clinician, educator, and author Michael Tierra, who founded both the American Herbalists Guild and the East West School of Herbology. He tells the story of an exceptional homemade goat cheese given to him the day before he flew cross-country to make a presentation on neem at a national conference of herbalists. The cheese was so outstanding that he ate more than he should have, and his tummy rebelled as he boarded the plane. As his stomach grew increasingly distressed, he began drinking the neem extract he had brought with him for the presentation. Before the plane landed, Tierra was back on his feet and feeling fine. (The tape of his presentation is currently available at www.usingneem.com.)

Although the specific cause of Tierra’s upset stomach was never determined, we do know that neem’s antibacterial and antiviral properties can quickly calm digestive systems exposed to microbes in food or water or invaded by a stomach flu virus. Neem often clears up even stubborn cases of diarrhea (although, ironically, diarrhea is the primary symptom of too high a dose of neem).

Ulcers

Neem’s efficacy in treating ulcers is one of the few research projects carried out with human subjects. Researchers at the Indian Institute of Chemical Biology reported in 2004 that a neem bark extract decreases gastric acid secretion by nearly 80% and acid volume by more than 60%. Barium x-ray or endoscopy confirmed that 10 weeks of taking either 30 or 60 mg of the neem bark extract twice a day had almost completely healed cases of multiple duodenal ulcers. One case of esophageal ulcer and one case of gastric ulcer

had each healed completely after 6 weeks at the lower dose. Potential indicators of toxicity—including blood sugar, urea and hemoglobin levels—remained within normal range for the entire time, reflecting the absence of any adverse effects on other organs.

Acid Indigestion/GERD

This proven ability to reduce gastric acid production also appears to help people with ongoing acid indigestion and GERD (Gastroesophageal Reflux Disease), including people who have suffered from this severe and potentially disabling heartburn for years.

Reports from Users

I originally tried neem for controlling garden pests, and was amazed to discover all of its other benefits. I now use neem bark extract and capsules for my ulcers/IBS, and neem leaf extract and capsules for depression. They both work remarkably well.

My medicine for ulcers/IBS for 20 years was dicyclomine, which has been totally replaced with neem bark. I have only been taking it for about 6 weeks, but it has already reduced my discomfort and pain by at least 50%. Needless to say, I am very pleased. For me, the extract seems to work fastest when I need immediate relief. Neem is the ONLY one of many natural remedies I have tried that works for me.

Dotty M., via email

I had gastritis every morning and evening until I started drinking 40 drops of neem leaf extract a day.

Ramon Rodriguez Blanco
Director of Scientific Investigations,
Universidad Autonoma de Nayarit, Mexico

My daughter recently became ill with stomach flu. I gave her a little bit of neem diluted in some juice and immediately she stopped vomiting. Shortly after this, I contracted the same infection and used the neem to stop diarrhea.

A friend's husband had been ill with severe diarrhea for four days and was on the verge of being hospitalized when she remembered my experiences with neem. She gave neem tea to her husband, and his diarrhea began to stop within minutes after finishing his cup.

Diane N., Tampa, FL

I have GERD and have been taking neem to help control my stomach acid. Taking two capsules of neem bark twice daily has permitted me to cut back on the prescription Protonix® to the extent that I now take a pill every third day instead of daily. I can also say that I have not had a cold in the years since I began using neem regularly.

Ellen F., Lantana, FL

I was the kind of person who never ate anything spicy and practically refused to leave my house without a full roll of Tums®—until I discovered neem. Now I take two bark capsules every morning, and for the first time in my life I am able to eat Mexican food.

Mark S., Altamonte Springs, FL

NEEM IN YOUR GARDEN AND HOME

Growing Neem Yourself

Neem—native to India—is an extraordinarily hardy tree that thrives in ecosystems ranging from the Sahara Desert to the wet salty environment of the Florida Keys. The only pests known to harm it are directly related to overwatering—slugs (which are mollusks, not insects), and several strains of root rot.

In tropical climates like Florida and southern California, neem is a valuable shade tree that can grow 8 feet a year under optimum conditions. In colder climates, neem trees can easily be grown indoors in large pots. They are not only highly decorative houseplants in and of themselves, but they also protect your other houseplants by repelling the pests that can damage or kill them.

Even novice gardeners do well with neem. For best results, plant your neem tree in the largest pot you can move once it's filled with earth, since they're happiest spending summers outdoors and winter months in front of a sunny window. They grow only as large as their pots allow. If you don't have a compost pile or favorite potting soil, ask your local nursery to recommend their best soil for houseplants. Don't use soil from your yard unless you're an expert gardener and know exactly what you're doing.

Water thoroughly after transplanting, then wait until the soil is dry to the touch before watering again. You can always tell when it's time for watering because neem's leaves will begin to droop. Once you water your plant, you'll see how quickly the leaves respond. If soil is still damp but leaves on a recently transplanted tree start to wilt, spritz them with water or a very dilute fish emulsion. Don't overwater—that's the easiest way to kill a neem tree. If possible, place your new tree in a spot where it is protected from afternoon sun and high winds. Once your tree is settled in, however, it will be happy in full sun and handle high winds well.

For optimum growth, fertilize weekly with fish emulsion at half the recommended rate, and fertilize monthly with a balanced organic fertilizer—like 6-6-6—while the tree is growing.

Because neem trees, like many tropical plants, are day-length sensitive, they stop growing in the winter unless they get supplemental light. So if you expect to harvest neem year-round, make sure your tree receives as much natural light as possible during the day, and—with the short days of winter—several hours of artificial light at night. (A nearby living room lamp is perfectly adequate.)

Young neem trees can be purchased year-round on the internet from several nurseries. Neem seeds, however, are available only in late summer and early fall because they must be planted within 30 days of harvesting.

To Try Neem as a Pesticide

While several major international companies market processed neem oil as an insecticide in the US, there are currently no natural materials labeled for use as pesticides. One company is currently working through the long and expensive process, but has not received approval yet. (For more information, see the section on insects on pages 22 to 24.)

However, in tropical countries around the world, natural products have been used successfully for thousands of years, including raw oil, neem cake (the residue left after oil has been pressed from the seeds) and fresh or dry leaf.

In most of the U.S., neem oil is the best alternative. The oil is traditionally mixed at about 1 ounce per gallon of water, although some experts find that concentrations as low as 1 tablespoon per gallon are effective. Add a small amount of soap or natural emulsifier to keep the oil and water mixed, shaking when necessary. Use within 24 hours for best results.

Neem cake is harder to find, but is a highly bioavailable fertilizer and exceptionally effective for controlling garden pests. It has an intense odor, so it probably should not be used indoors, but it may help repel mammals, like deer, rabbits and squirrels in outdoor landscapes.

In tropical climates, gardeners can grow their own neem leaf to use instead of the oil or cake. Experienced growers recommend filling a blender with fresh leaves and a small amount of water. After grinding, drain through muslin or pantyhose and let the mixture that seeps through sit in a gallon of water overnight. Spray it on plants the next day. Don't throw the left-over ground up residue away! Use it as a mulch so the plants will continually absorb it and help repel pests from the inside-out.

Neem's Low Relative Toxicity

One of the main differences between neem and other pesticides – even natural pesticides like pyrethrum and nicotine – is its extremely low toxicity. Although there are reports of people being seriously injured when neem oil is taken internally, it's extremely rare even in countries where neem is often used much like our grandmothers used castor oil.

Scientists measure toxicity with a test called LD50 – or Lethal Dose, 50% -- which calculates how much of a substance it takes to kill half of the animals, insects or microbes tested. It is a relative indicator of the substance's acute toxicity. Here is how neem's low toxicity stacks up against some other insecticides. This indicates its relatively low risk for any humans and other mammals.

	LD50 (mg/kg)	Oz per 150 lb person
Nicotine Sulfate	50–55	0.1
Sevin	246–283	0.6
Aspirin	1200	2.8
Rotenone/Pyrethrum	1500	3.6
Malathion	2800	6.7
Table Salt	3320	8.0
Neem	7500	18.0

Table courtesy of Kerr Center for Sustainable Agriculture

TAKING NEEM

Neem is generally a very safe herb despite its powerful actions. Many people use it for short time periods as an antibiotic, an antiviral, or a general immune system booster after they have been exposed to questionable food or water or to someone with an infectious disease. Some people—especially those with chronic disorders such as arthritis, ulcers or psoriasis—may take it for months or even years. (The few conditions or ways it should not be used are noted in the Contraindications spelled out in the introduction to this booklet.)

These directions are intentionally vague because there are no precise recommendations for using neem. Even the occasional human study is difficult to interpret in that respect because researchers often use neem extracts without describing in detail how they were made. The AIDS study, for example, extracted neem bark in acetone—a substance most often used in the U.S. as an industrial solvent and nail polish remover. Comparing that to the alcohol- or glycerin-based products available in developed countries is impossible. For more information—or if you have questions about specific conditions—please feel free to contact moderator@usingneem.com.

Using Neem Internally

Neem appropriate for oral use is made from the leaf or bark, and comes raw, as standard extracts, capsules, teas, and supercritical extracts. These special extracts are made via carbon dioxide to provide a highly concentrated extract—with the largest spectrum of the plant's compounds—in a tiny capsule. (Neem oil is not to be taken internally.)

Extracts

Always shake well before using. Take 5 to 20 drops at a time, one to three times a day, either diluted in water or juice, undiluted, or placed under the tongue (i.e., sublingually) for fast absorption. Liquid extracts can also be used topically when an oil-based product is not wanted.

Capsules

For adult patients, healthcare professionals generally recommend taking two standard capsules twice a day to treat either acute or chronic problems. Although that

can be increased to as much as three capsules three times a day, it's recommended to start with the lowest dose and increase it gradually only if you do not see any results after 7-10 days.

On the other hand, some experts recommend starting with what's called a loading dose, which involves taking the highest dose for the first week and then gradually reducing the dosage as you begin to experience results. This especially makes sense for acute health problems—such as colds, flu or food poisoning—where time is of the essence and you need fast action.

Many herbalists prefer that neem (and medicinal herbs in general) be taken for 3 to 4 weeks at a time, then stopped for 1 week to prevent effectiveness from decreasing. But based on our personal experiences, we do not recommend this approach if you are suffering from ulcers, GERD, or severe arthritis, or if your pain returns quickly whenever neem is interrupted. If, however, you find at some point that neem has become less effective for you than it has been, then we suggest stopping it briefly for 3 to 7 days.

If you experience diarrhea, itching, or low blood sugar while you are taking neem—stop taking it immediately.

Note: Children who weigh less than 100 lbs. should not take neem unless specifically recommended by a healthcare professional. Neem contains aspirin-like compounds that might increase the risk of Reyes Syndrome for children who are running a fever or have been exposed to an illness that can cause a fever. Children above this weight can take neem without worry, and can follow the guidelines for adults.

Supercritical Capsules

Supercritical neem extracts are highly concentrated and should be limited to 1 or 2 a day unless a larger dose is specifically recommended by a healthcare professional. (Note: you may experience small bumps on your tongue if you take a higher dose of supercritical extract than your body is able to process.)

Making Neem Tea

Tea—what herbalists call an infusion—can be made from fresh or dried neem. Some companies make it in various flavors, or in convenient tea bags. From whole leaf (either fresh or dry): steep 5 leaflets in 1 cup of boiling water, then allow it to cool before drinking. From powdered bark: put 1/4 teaspoon in 1 cup of water. Most people can drink from 2 to 4 cups of tea per day. Sweeteners or other flavorings will not diminish the efficacy of neem tea. (A friend's mother-in-law drank neem bark tea

every night before bed to help her bursitis – and added a good dose of peppermint schnapps for flavor. The combination worked wonders!)

Using Neem Topically

Don't confuse neem oil—which is pressed directly from neem seeds—with essential oils, which are highly concentrated distilled products that can actually burn the skin if used at concentrations greater than about 2%. As a pressed oil, neem can be safely used at full concentration by almost everyone.

Some people find the oil's scent—which is described as a bit like sulfur or garlic, or a little onion-like—to be a bit strong. Most commercial neem products sold in the U.S. combine the leaf extract—which is less concentrated and with a mild aroma—with somewhere between 1% and 25% neem oil.

For long-standing skin conditions, consider using neem both internally (capsules or tea) and topically in a lotion, salve, or cream product to fight the issue from the inside out, and the outside in.

Using Neem For Animals

While neem is mostly used for human beings in the U.S., two of the nation's major manufacturers first became believers in the power of neem when their founders saw significant changes in their own dogs.

Neem can be used both internally and externally to support a healthy immune system and healthy skin response. While there are still no products labeled to treat the myriad skin disorders – fleas, ticks, mites, flakes, itches, mange or ringworm – seen in dogs and cats, many neem users report positive results.

Many of the “anti” properties found in neem, particularly antitumor, antiviral, antifungal, anti-inflammatory, antiparasitic and anticarcinogenic, appear to be extremely effective in dogs and cats.

For internal issues, including arthritis pain or cancer (or a genetic predisposition to cancer), use 1/8 teaspoon of bark powder twice a day per 10 pounds. For instance, if you have a 70-pound Golden Retriever, the dog would get 7/8 of a teaspoon. Follow this regime for 30 days and then back down to once a day unless the issue re-occurs. Neem's anti-inflammatory action can help some dogs with joint issues and you may keep older large dogs on the twice-a-day regime for months at a time. If stronger medicines, such as aspirin or prescription pain relievers are required, they recommend

continuing the neem bark to help protect the animal's stomach lining and liver.

For skin disorders, neem shampoo or soap helps soothe itching skin. Neem conditioner, "anti-itch" formulations, or neem oil can be used after a bath or added to their shampoo, depending upon the severity of the problem. In most cases, neem should be applied externally twice a day until improvements are apparent. Apply once a day for at least another week, then watch the area carefully for at least a month. Some parasites are extremely persistent, either on your animal or in its environment, and using neem may be necessary for a long period of time. There is no need for concern if your animal licks off the neem oil.

Using neem internally as described above will address potential immune system problems caused by the parasite and help treat it from the inside-out.

Report from a User

I rescued a Shih-tzu named Mr. Jenkins in 2000 who was scheduled to be put down because of his awful skin. He was 10 years old and had been under veterinary treatment his entire life. When I found him, much of his hair was gone and his skin was beet-red, oozy and very inflamed. I coated his skin with pure neem oil, gave him one neem leaf capsule twice daily, and washed him with neem pet shampoo every night. Within 3 days, he was substantially improved. I changed his diet (the main source of his problems), and continued with the neem regimen. Within 3 months, his skin was completely healed. Mr. Jenkins lived a long, comfortable life to 17 years, thanks to neem.

Autumn B., Wauchula, Fla.

SELECTED FOOTNOTES

The vast majority of the research quoted in this booklet is available through the National Institutes of Health database, online at www.pubmed.com. Simply type in neem and the specific issue, i.e., neem and scabies, neem and gum disease, neem and ulcers, etc. Please remember that the vast majority of this research is done on animals or test tubes and those results are not always seen in humans.

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Sherrie K. Henne, ND, has more than twenty years experience in natural health and metaphysical research. A Traditional Naturopathic Doctor with a degree from the Clayton School of Natural Healing, she has studied kinesiology, nutrition, massage therapy, acupressure and homeopathy as well as yoga and contact reflexology.

She discovered neem in 1997 while living in Florida and was fascinated by its multiple healing properties. Over the past 10 years, international research has continued to document the amazing properties of the neem tree, but that knowledge has not been easily accessible to the average consumer.

With a second career as an award-winning webmaster, Henne built www.usingneem.com as a single site where consumers can discover traditional uses, the latest research and reports from users around the world. This booklet introduces users to neem, but much more information, including links to most of the research cited, is available online.

SPECIAL OFFER
NEEM: The Ultimate Herb

While still relatively unknown in the U.S., neem would have far fewer enthusiasts without John Conrick, president and founder of the Neem Association and author of NEEM: The Ultimate Herb. One of the most comprehensive books on neem ever written, The Ultimate Herb presents detailed information on neem's long history along with easy-to-understand instructions for using neem, all backed up with hundreds of references to research and medical documents. (165 pages)

\$10.50 through The Neem Association
1780 Oakhurst Avenue
Winter Park, FL 32789
Email: jconrick@usingneem.com

A cornerstone of the Ayurvedic tradition, neem has been called “the village pharmacy” for thousands of years. When the National Research Council published a report on neem in 1992, they called it “a tree for solving global problems.”

This book provides an overview of the groundbreaking research conducted since that landmark report, as well as a look at how people are actually using this amazing herb. It offers particular promise in developing nations where it can be easily grown and processed. In regions where conventional medicine is more accessible, neem offers a natural alternative to drugs that may have serious side effects.

Our moderators include both healthcare professionals and patients who’ve used neem to help overcome everything from acne and arthritis to psoriasis and ulcers. As often as possible, we’ve combined clinical research with anecdotal reports. Much more information, including links to much of the research highlighted here, is available online at www.usingneem.com

The information presented in this book is not intended to recommend that any product be used to diagnose, treat, cure or prevent any disease, or kill or repel any insect on humans, animals or plants. The statements in this book have not been evaluated by the U.S. Food and Drug Administration or the U.S. Environmental Protection Agency. Anecdotal reports have not been confirmed by objective observers and may or may not be typical. Whenever possible, links to abstracts available online at the National Institutes of Health (a division of the U.S. Department of Health and Human Services) are provided.

US\$4.95 Retail Price



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