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REPORT

Ancient Remedies

IN USE TODAY

By Jeffrey Laign

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Thousands of years ago, physicians employed surprisingly sophisticated healing techniques. Now scientists from around the world are unearthing-and validating-many of those life-extending medical secrets.

Maya Bloom, a botanist in New Jersey, studies healing plants used by Bible-era Hebrews. Wolfgang Schatton, a pharmaceutical researcher in Germany, follows in the footsteps of Medieval herbalist Hildegard of Bingen. Yang Wei Yi, a professor in Hong Kong, develops drugs from plants his ancestors used 5,000 years ago.

Around the world, ancient remedies are providing inspiration for modern scientists. "Many of these healing techniques have been practiced for thousands of years-and they work," says Samara Nascimento, who studies plant medicines used by Indians in Brazil's Amazon Basin. "It's my job to test these remedies and prove their effectiveness."

In this technological age of medical marvels, it's hard to imagine that the legacy left by ancient healers would provide anything more than anecdotal interest. But many modern researchers believe a wealth of healing secrets lies buried by the centuries.

Only in recent years, for example, have scientists validated the medical use of many healing herbs used by our forebears, including garlic, echinacea and ginkgo. And those plants comprise only a fraction of the medicinal plants known to exist.

"Scientists have only been able to examine approximately one-half of 1% of the higher plants on this planet for their chemical compositions and pharmaceutical potential," says Michael Balick, director of the New York Botanical Garden's Institute of Economic Botany. "Yet these species have yielded about one quarter of all the drugs on the pharmacist's shelf."

Given that ratio, Balick says, it makes sense to tap the healing wisdom of people who have "pre-screened plants over thousands of years of experimentation and found hundreds-if not thousands-of remedies with therapeutic potential."

Those ancient remedies, moreover, derive from every corner of the world, from the Middle East and Europe to Asia and the Americas.

Middle East

Ancient Egyptian physicians treated a wide variety of medical conditions, from gynecologic disorders to pediatric illnesses and emergencies requiring surgery. Doctors recorded their experiences on papyrus scrolls that still exist. And many of their prescriptions, not surprisingly, were based on herbal preparations.

Arab tribes in Jordan also relied on healing plants-and still do today. "In fact, most Jordanians prefer herbs to other manufactured medicines," says Jordan herb specialist Khamis Ali Al Bittar. "It is part of our heritage."

The same holds true in Turkey, known to the ancient world as Asia Minor. In rustic villages such as Cirince you'll still find kerchiefed grandmothers selling homemade medicines such as kekik suya, a bitter tonic flavored by wild oregano that's believed to be good for stomach disorders.

The Hebrews, meanwhile, were the forerunners of modern preventive lifestyle medicine. Much of Judaic nutritional wisdom makes



sense when examined in a modern light.

The foods that were enjoyed throughout the Middle East were considered to have healing as well as nutritive value. Now researchers are investigating the life-extending potential of fruits and vegetables, including:

Apples. Adam and Eve may have lost Eden for eating this fruit, but they kept the doctor away. Scientists now know that apples assist in combating heart disease by lowering cholesterol and helping to control blood pressure. Apples also contain chemicals that stabilize blood sugar in diabetics.

Apples are rich in life-extending nutrients, including calcium, magnesium, potassium, phosphorous and iron, along with vitamins A, C, B and folate. And chlorogenic acid in apples has inhibited cancer growth in a number of animal studies.

Garlic. Slaves recruited to build the Great Pyramids of Egypt subsisted largely on this odorous herb. Garlic, in fact, may be what kept them alive. Modern medical anthropologists credit the plant with helping to prevent epidemic diseases in the ancient world. That's because garlic contains bacteria-fighting allicin, as well as vitamin C, calcium, magnesium and potassium.

In addition, garlic has been proved to lower cholesterol and triglycerides, thin blood (thus preventing strokes) and stimulate the immune system. Some scientists think garlic also may prove to be a crusader in the war against cancer.

Onions also were an important medicinal food source to early Middle Eastern people-and for good reason. Researcher Victor Gurewich's studies at Tufts University in Boston indicate that eating the equivalent of an onion a day raises beneficial HDL cholesterol by 30%-as much or more than regular aerobic exercise. Rich in vitamins B and C, along with potassium and calcium, onions also promote circulation, dissolve blood clots and lower total blood cholesterol. In addition, chemicals in onions fight bacterial infections, bronchitis and congestion, and they've been shown to block cancer in animal tests.



Garlic may have saved the lives of slaves recruited to build the Great Pyramids of Egypt. Modern medical anthropologists credit the plant with helping to prevent epidemic diseases.

Figs are considered sacred in the Arab world and throughout the Middle East. The Bible tells us that the prophet Isaiah used a "lump of figs" to treat the Israelite King Hezekiah, who was "sick unto death" from what probably was cancer.

Now Japanese scientists have isolated a cancer-fighting chemical in figs called benzaldehyde. Investigators at the Institute of Physical and Chemical Research in Tokyo say benzaldehyde is highly effective at shrinking tumors.

In addition, the U.S. Department of Agriculture says figs, which contain vitamins A and C, and calcium, magnesium and potassium, may curtail appetite and improve weight-loss efforts. Fig juice, moreover, is a potent bacteria killer in test-tube studies.

Grapes contain polyphenol and tannin compounds that fight viruses, including herpes simplex, according to Canadian animal studies. There also is evidence that grape juice kills bacteria and halts tooth decay. Grapes contain vitamins A, B and C, along with calcium, potassium and zinc. And grapes' high concentration of caffeic acid may aid in preventing cancer.

Europe

Cure your cold - and clean your house

Modern western medicine has its roots in ancient Greece. And the seeds were planted in the 5th century B.C. by Hippocrates, who was born on the Greek island of Kos, just off the Aegean coast of Turkey.

The Romans absorbed the Greeks' medical knowledge, and added their own preventive ideas for life extension. Aulus Cornelius Celsus, for example, recommended a moderate regimen of food, drink, exercise, bathing and herbal medicine. Read his texts today and you'll be reminded of modern self-help books.

Celsus and other Romans also used a variety of medicinal plants, and they spread their knowledge throughout the European territories they colonized. Hildegard of Bingen, a German nun who lived from 1098 to 1179, greatly added to Europe's burgeoning pharmacopoeia. Now many of her ancient remedies have been validated by modern researchers, says Wolfgang Schatton, a doctor of pharmacy in Frankfurt, Germany.

"Many of the old herbal preparations work as effectively or better than pharmaceutical drugs," Schatton says.

Much of the current research on herbs has been conducted in Europe, where first-line treatments include:

Ginkgo. In France, ginkgo biloba accounts for 4% of all prescription medicines. And the herb comprises 1% of prescription sales in Germany, where it's licensed for treatment of "cerebral insufficiency" and is used to treat problems ranging from impaired memory, dizziness and tinnitus, to headaches, nervousness and anxiety. Total sales across the European continent average more than \$500 million a year.

The U.S. Food and Drug Administration does not recognize ginkgo biloba as a medicine. But, "research on ginkgo and Alzheimer's is producing extremely good results in France and Germany," says U.S. herb researcher Daniel B. Mowrey, Ph.D.

St. John's Wort. Used to treat depression, "St. John's wort isn't something they've just discovered across the Atlantic," says herbal expert Harold Bloomfield, M.D. "It's been used by German and other European physicians since ancient times. It comes as a surprise to us here in the United States because we've chosen to sever our roots to herbal medicine."

Feverfew. In England this herb has been studied extensively as a treatment for migraine headaches ever since a local miner reported miraculous cures after chewing a few leaves in the late 1970s. Feverfew contains a compound called parthenolide, which helps to control expansion and contraction of blood vessels in the brain. When you begin to get a migraine your brain releases the neurotransmitter serotonin and your blood vessels constrict. Feverfew appears to counteract your brain's order by causing blood vessels to dilate. In addition, feverfew appears to neutralize chemicals called prostaglandins, which are linked to pain and inflammation.

A drink enjoyed for centuries on the Mediterranean island of Cyprus may extend your life-and you can use it to wash your windows.

Zinvania is an herb-flavored brandy that Cypriots credit with curing colds-and just about anything that ails you. What's more, peasants use the jet fuel-strength liquor as a household cleaner.

"Many people say it makes windows sparkle," says Constantia Seas, a spokesperson for the Cyprus Tourism Organization in New York.

Now an entrepreneurial group of monks has transformed this ancient herbal medicine into an upmarket aperitif. After collecting recipes passed from generation to generation, the monks of Panayia Kykkou Monastery have set up a modern distillery to produce zinvania and market it as a trendy drink.

"Sales are picking up," says Costakis Fournaris, the distillery's technical manager. "Zinvania never had prestige before, but now, it's becoming quite fashionable."

For centuries, locals distilled zinvania in huge household vats in the Pitsillia mountain region of central Cyprus. Usually clear, the drink sometimes has a red tinge, thanks to the addition of cinnamon and other herbs. In any case, Cypriots believe that zinvania is good for you.

"Just a sip is enough to bring a tinge to your cheeks," says Fournaris. "Use it as a rub and it works wonders."

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Asia

China's reverence for natural therapies stretches back to the mythical days of Emperor Sheng Nung, who began recording the healing properties of plants in 2,800 B.C.

Today, Chinese doctors use about 3,000 types of herbs, much as their ancestors did.

"We're devoting a great deal of time to researching these ancient herbal cures," says Yang Wei Yi, a professor at Hong Kong Baptist University. "We are studying herbs to treat cancer, heart disease, chronic fatigue syndrome, diabetes and even AIDS."

Chinese scientists also are attempting to develop life-extending supplements by isolating polysaccharides from woody mushrooms; treat age-associated illnesses with schisandra; and promote blood circulation with dan shen, a cousin of our garden sage.

Researchers in India also are making great strides in corroborating ancient medical practices. More than 5,000 years ago, Indian healers devised a program of diet, exercise and meditation called Ayurveda. Today, thanks to endorsements by advocates such as Deepak Chopra, M.D., Americans are beginning to embrace the ancient healing regimen.

"Ayurveda is usually translated as 'the science of life,'" says Chopra, author of the best-selling *Perfect Health: The Complete Mind/Body Guide*.

Ayurveda, in fact, may be mankind's oldest form of mind-body medicine, says Nancy Lonsdorf, M.D., coauthor of *A Woman's Best Medicine: Health, Happiness and Long Life Through Ayur-veda*.

"It was the Vedic seers who first recognized the unified field, now described by quantum physicists," Lonsdorf says. "These healers first understood the science of the integration of human consciousness and the material world."

Ayurvedic therapies are tailored to specific body types and lifestyles, says Vasant Lad, author of *The Complete Book of Ayurvedic Home Remedies*. "As a science of self-healing, Ayurveda encompasses diet and nutrition, lifestyle, exercise, rest and relaxation, meditation, breathing exercises and medicinal herbs, along with cleansing and rejuvenation programs for healing body, mind and spirit."

One of the best-researched Ayurvedic herbs is ginger, which has been used for centuries to treat stomach upsets caused by influenza and other illnesses. Researchers have discovered that ginger root contains chemicals called gingerols and shogaols, which relax the intestinal tract, relieving vomiting and diarrhea that often accompany stomach flu. The herb, in fact, has demonstrated a success rate of 75% in curing stomach flu. And Japanese scientists have discovered that ginger extracts inhibit gastric lesions by as much as 97%.

The Americas

The indigenous people of North and South America turned to the forest when they were under the weather. Today scientists are turning to laboratories to investigate and fine-tune Indian medical prescriptions.

In North America, Indians considered echinacea to be nothing less than a panacea. The Sioux applied a freshly scraped echinacea root as a poultice to treat the bites of rabid animals; the Cheyenne used echinacea to heal mouth ulcers; Choctaws took echinacea when they came down with a bad cough; and Delaware Indians used echinacea to treat venereal diseases.



Many of the old herbal preparations work as effectively or better than pharmaceutical drugs.

"Echinacea was used more than any other plant by Indians in the Plains states," says anthropologist Melvin Gilmore.

Today scientists know why the Indians relied on this common wildflower. In the last 30 years, more than 500 scientific studies have been conducted to determine the herb's safety and efficacy.

The most consistently proven effect of echinacea is in stimulating a process called phagocytosis, which encourages white blood cells and lymphocytes to attack invading organisms. Among other scientifically proven actions, echinacea:

- Increases the number and activity of immune system cells, including anti-tumor cells.
- Promotes T-cell activation.
- Stimulates new tissue growth for wound healing.
- Reduces inflammation in arthritis and inflammatory skin conditions.
- Induces mild antibiotic action against bacteria, viruses, fungi and other germs.
- Inhibits the enzyme hyaluronidase, to help prevent bacterial access to healthy cells.
- Slows the spread of infection to surrounding tissues and helps to flush toxins from infected areas.

In South America, Indians were equally knowledgeable about healing plants. Today scientists think that the hardy, disease-resistant plants that grow in the rain forests of the Amazon contain chemical compounds that may one day provide cures for cancer and AIDS, and perhaps extend our life spans by decades.

Pharmaceutical giants such as Merck, Abbott, Bristol-Myers Squibb, Eli Lilly, Monsanto and SmithKline Beecham have sent hundreds of "bioprospectors" to look for medicines in the jungle. Among those discovered:

Vincristine. Extracted from a species of periwinkle that grows in the rain forests of Madagascar, this drug has dramatically increased survival from childhood leukemia. Thanks to vincristine, eight out of ten children stricken with the devastating disease recover fully.

Quinine. For decades this medicine made from South American cinchona bark has been used to save millions around the world from perishing from malaria.

Curare. South American Indians dip their arrowheads in this plant-derived poison. But curare has far more valuable uses. It yields d-turbocurarine and other alkaloids used to treat multiple sclerosis and Parkinson's disease. And it's an essential ingredient of anesthesia.

In addition, researchers in Europe are testing an extract from cat's claw as a treatment for cancer and AIDS; an extract from the muira puama plant may provide a Viagra-like cure for impotence; the pau d'arco tree yields lapachol and 20 other compounds that may be useful in treating cancer, lupus, diabetes and Hodgkin's Disease; and Italian researchers have found that an extract from the chuchuhuasi tree fights tumors and reduces inflammation.



David Kingston, a Virginia chemist, has conducted more than 14,000 tests on more than 3,000 plant extracts he found in the Amazon jungles of Suriname. "It's hard to know just how many plants are out there," he concedes.

And even with our many technological resources, it's hard to know what life-extending medical secrets may have been lost through the centuries. "We are just now beginning to understand what ancient people knew all along," says Maya Bloom, a botanist in Millburn, N.J. "Many of the plants on this earth have the power to heal us and extend our lives."

Jeffrey Laign, a contributor to Life Extension magazine, travels the world in search of life-extending remedies.

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