

Homeopathy: Is It Medicine?

Homeopathy is regaining some of its earlier popularity. Is there anything to it? Does it work?

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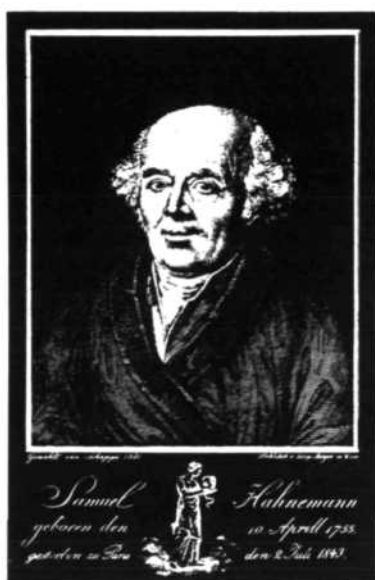
DURING THE PAST few years, increasing numbers of homeopathic remedies have been offered for sale in health-food stores and elsewhere. Their promoters suggest that they are safe, effective, natural remedies that have no side effects. This report summarizes the year-long investigation of homeopathy I conducted on behalf of *Consumer Reports* magazine.

Homeopathy's Roots

Homeopathy dates back to the late 1700s, when Samuel Hahnemann (1755-1843), a German physician, began formulating its basic principles. Hahnemann was justifiably distressed about bloodletting, leeching, purging, and other medical procedures of his day that did far more harm than good. He was also critical of medications like calomel (mercurous chloride), which was given in doses that caused mercury poisoning. He then developed his "law of similars"—that the symptoms of disease can be cured by substances that produce similar symptoms in healthy people. The word *homeopathy* is derived from the Greek words *homeo* (similar) and *pathos* (suffering or disease).

Although ideas like this had been espoused by Hippocrates in the fourth century B.C., and by Paracelsus, a fifteenth-century physician, Hahnemann was the first to use them in a systematic way. He and his early followers conducted "provings," in which they administered herbs, minerals, and other substances to healthy people, including themselves, and kept detailed records of what they observed. Later these records were compiled into lengthy refer-

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ence books called *materia medica*, which are used to match a patient's symptoms with a "corresponding" drug.

Hahnemann believed that diseases represent a disturbance in the body's ability to heal itself and that only a small stimulus is needed to begin the healing process. In line with this—and to avoid toxic side-effects—he experimented to see how little medication could be given and still cause a healing response. At first he used small doses of accepted medications. But later he used enormous dilutions and concluded that the smaller the dose, the more powerful the effect—a principle he called the "law of infinitesimals."

That, of course, is just the opposite of what pharmacologists believe today. As summarized in the 1977 report of an Australian Parliament committee of inquiry: "For each [drug] property, there is a clearly defined dose-response relationship in which increasing the dose increases the effect. . . . There is not one example in the whole area of pharmacology in which simple dilution of a drug enhances the response it produces any more than diluting a dye can produce a deeper hue, or adding less sugar can make food sweeter."

Homeopathy's Remedies

Homeopathic drugs are prepared as follows: If the medicinal substance is soluble, one part is diluted in either 9 or 99 parts of a water and/or alcohol solution and shaken vigorously; if insoluble, it is finely ground and pulverized in similar proportions with powdered lactose (milk sugar). One part of the diluted medicine is diluted, and the process is repeated until the desired concentration is reached. Dilutions of 1 to 10 are designated by the Roman numeral X ($1X = 1/10$, $2X = 1/100$, $3X = 1/1,000$, $6X = 1/1,000,000$).

Similarly, dilutions of 1 to 100 are designated by the Roman numeral C (1C = 1/100, 2C = 1/10,000, 3C = 1/1,000,000, and so on). Most remedies today range from 6X to 30X.

According to the laws of chemistry, there is a limit to the dilution that can be made without losing the original substance altogether. This limit, called "Avogadro's number" (6.023×10^{23}), corresponds to homeopathic potencies of 12C or 24X (1 part in 10^{24}). Hahnemann himself realized there is virtually no chance that even one molecule of original substance would remain after extreme dilutions. But he believed that the vigorous shaking or pulverizing with each step of dilution leaves behind a spiritlike essence that cures by reviving the body's "vital force." Hahnemann's theories have never been accepted by scientifically oriented physicians, who charge that homeopathic remedies are placebos (inert substances).

Because homeopathic remedies were actually less dangerous than those of nineteenth-century medical orthodoxy, many medical practitioners began using them. At the turn of the century, homeopathy had some 14,000 practitioners and 22 schools in the United States alone. But as medical science and medical education advanced, homeopathy declined sharply, particularly in America, where its schools either closed or converted to modern methods. The last pure U.S. homeopathic school closed during the 1920s, but Hahnemann Medical College in Philadelphia continued to offer homeopathic courses on an elective basis until the late 1940s. A few graduates from other modern medical and osteopathic schools later became homeopaths by taking courses here or abroad or by training with a practicing homeopath.

Homeopathic remedies were given legal status by the 1938 Federal Food, Drug, and Cosmetic Act, which was shepherded through Congress by Senator Royal Copeland (D-N.Y.), a prominent homeopathic physician. One provision of this law recognized as drugs all substances included in the *Homeopathic Pharmacopeia*. Now in its ninth edition, this book lists more than 1,000 substances and the historical basis for their inclusion: not modern scientific testing, but homeopathic "provings" conducted as long as 150 years ago.

Today's Marketplace

The 1985 directory of the National Center for Homeopathy, in Washington, D.C., lists some 300 licensed practitioners, half of them physicians and the rest mostly chiropractors, naturopaths, dentists, veterinarians, and nurses. But Jay P. Borneman, of Swarthmore, Pennsylvania, whose family has been marketing homeopathic remedies since 1910, believes that several hundred more consider themselves homeopaths and that many conventional physicians utilize one or a few homeopathic remedies for specific conditions. Larger numbers of homeopaths practice in England, France, India, Germany, the Soviet Union, and several other countries where homeopathy is more popular.

Laypersons are also involved in practicing homeopathy. Some operate offices, which may not be legal. A few unaccredited schools have offered correspondence courses leading to certificates or "degrees" in homeopathy.

Consumers interested in homeopathic self-treatment can obtain guidance through lay study groups, books, and courses sponsored by the National Center for Homeopathy.

Most homeopathic practitioners still rely on *materia medica* in choosing among the thousands of remedies available. But a few utilize computerized electrical devices that they claim can help match the remedies to the patient's diseased organs. "Classical" homeopaths—who follow Hahnemann's methods closely—take an elaborate history of the patient to fit the remedy to the individual. The history typically includes standard medical questions plus many more about such things as emotions, moods, food preferences, and reactions to the weather. The remedy for symptoms on one side of the body may differ from that for identical symptoms on the other side. Classical homeopaths prescribe one substance at a time, while nonclassical homeopaths may prescribe several.

Homeopathic remedies are available from practitioners, health-food stores, and drugstores, as well as manufacturers who sell directly to the public. A few products are sold person-to-person through multilevel marketing companies. Home-remedy kits are available from several companies. Jay Borneman believes that U.S. sales of homeopathic products probably total no more than \$15 million a year, with half of these made by five companies that have been in business for 75 to 150 years.

According to FDA officials, homeopathic remedies used to be marketed on a small scale by these five companies, mainly to serve the needs of licensed practitioners. "These drugs bore little or no labeling for consumers because they were intended for use by homeopathic physicians who would make a diagnosis and either compound a prescription, dispense the product, or write a prescription to be filled at a homeopathic pharmacy," says William G. Nychis, the FDA's expert on homeopathy. "The pharmacies also sold a limited number of nonprescription homeopathic products. During the past decade, however, the homeopathic marketplace has changed drastically. New firms have entered the field and sold all sorts of products through health food stores and directly to consumers."

Jay Borneman readily admits that "there is a lot of insanity operating under the name of homeopathy in today's marketplace. Companies not committed to homeopathy's principles have been marketing products that are unproven, untested, not included in the *Homeopathic Pharmacopeia*, and combination products that have no rational or legal basis. Some are simply quack products called homeopathic for marketing purposes."

Perhaps the most blatant promotion was that of Biological Homeopathic Industries, Albuquerque, New Mexico, which in 1983 sent a 123-page catalogue to almost 200,000 physicians nationwide. Among its products were BHI Anticancer Stimulating, BHI Antivirus, BHI Stroke, and 50 other types of tablets claimed to be effective against serious diseases. In 1984, the FDA forced the company to stop distributing several of the products and to tone down its claims for the rest.

In September 1985, agents of the FDA and the Pennsylvania Health

Department seized some \$125,000 worth of drugs sold person-to-person by Probiotic, Inc., of Reading, and Homerica, Inc., a subsidiary. The products were labeled "Skin Relief," "Human Power Recharger," and "Pain Control" and did not state what they were for, what was in them, or how to use them.

At least ten other companies offer questionable homeopathic remedies for over-the-counter sale. Some product examples are: Arthritis Formula, Bleeding, Kidney Disorders, Flu, Herpes, Exhaustion, Whooping Cough, Gonorrhea, Heart Tonic, Gall-Stones, Cardio Forte, Thyro Forte, and Worms.

Homeopathy's Legal Status

In most states, homeopathy can be practiced by any physician or other practitioner whose license includes the ability to prescribe drugs. Three states—Arizona, Nevada, and Connecticut—have separate homeopathic licensing boards. The Nevada situation is notable because some of its practitioners acquired licenses as homeopaths after other states revoked their medical licenses for cancer quackery.

Arizona's licensing boards are subject to "sunset" review, which means they will be abolished unless reauthorized by the Arizona legislature. Last year, as the expiration date for the homeopathy board drew near, the state's homeopaths joined forces with health-food stores to lobby vigorously. To counter the idea that a board might not be needed because there were only a handful of homeopaths in the state, the American Institute of Homeopathy (a group of about 100 classical homeopathic physicians) urged its members to apply for licensure in Arizona "to show that there are doctors interested in practicing homeopathy today." According to the National Health Federation, a health-food-industry group that helped with the campaign, close to 2,000 supporters attended hearings and state legislators got hundreds of handwritten letters supporting homeopathic licensing. The reauthorization bill passed unanimously.

Public protection regarding drugs is based on a framework of federal laws and regulations that require drugs to be safe, effective, and properly labeled. But the FDA has not applied this framework to homeopathic remedies. Since most homeopathic remedies contain no detectable amount of active ingredient, it is impossible to test whether they contain what their labels say. They have been presumed safe, but unlike most other drugs, they have not been proved effective against disease by scientific means, such as by double-blind testing. If the FDA were to require such proof for homeopathic drugs to remain on the market, the industry would not survive unless it could persuade Congress to change the law.

The American Association of Homeopathic Pharmacists, a group of leading homeopathic manufacturers, has proposed that homeopathic remedies remain marketable without a prescription for minor ailments that do not require complex medical diagnosis or medical monitoring. Traditional homeopathic remedies used for the treatment of serious diseases would be available by prescription only from physicians and others authorized by state laws to

prescribe drugs. The FDA is considering this proposal and hopes to issue a policy guide for homeopathic products in the near future.

In January 1986, the North Carolina Board of Medical Examiners revoked the license of George A. Guess, M.D., the state's only licensed homeopathic physician, after concluding that he was "failing to conform to the standards of acceptable and prevailing medical practice." (In May 1987, a county court judge overturned this decision, but the Board has appealed to a higher court.) Dr. Guess is a 1973 graduate of the Medical College of Virginia and was board-certified in family practice from 1976 through 1983. But in 1978 he began practicing homeopathy. During hearings held by the Board, another family practitioner testified that although Dr. Guess is intelligent and well trained in orthodox medicine, "homeopathy is not medicine. It's something else."

Most pharmacy-school educators seem to feel the same way. Last year I sent a questionnaire to the deans of all 72 U.S. pharmacy schools. Faculty members from 49 schools responded. Most said their school either doesn't mention homeopathy at all or considers it of historical interest only. Hahnemann's "law of similars" did not find a single supporter, and all but one respondent said his "law of infinitesimals" was wrong also. Almost all said that homeopathic remedies were neither potent nor effective, except possibly as placebos for mild, self-limited ailments. About half felt that homeopathic remedies should be completely removed from the marketplace.

Homeopathic Research

Probably the best review of homeopathic research is the two-part article by A. M. Scofield, Ph.D., a British biochemistry professor. In the *British Homeopathic Journal* (73:161-180 and 73:211-226, 1984), he concludes: "Despite a great deal of experimental and clinical work there is only a little scientific evidence to suggest that homeopathy is effective. This is because of bad design, execution, reporting or failure to repeat promising experimental work and not necessarily because of the inefficacy of the system which has yet to be properly tested on a large enough scale. . . . It is hardly surprising, in view of the quality of much of the experimental work as well as its philosophical framework, that this system of medicine is not accepted by the medical and scientific community at large."

Scofield cautions against dismissing homeopathy simply because its underlying philosophy does not fit accepted scientific premises. Feeling that "some of the experimental work already done suggests that homeopathy may be of value," he recommends that carefully controlled experiments be done to test homeopathy further.

One apparently well designed study was published in the British journal *Lancet* on October 18, 1986. In this study 56 hay fever patients who received a homeopathic preparation of mixed grass pollens had fewer symptoms than a comparable group of 52 patients who received a placebo. Whether this type of finding can be consistently reproduced remains to be seen.

Overview

During my lengthy investigation, I was impressed by the warmth and sincerity of the homeopathic leaders I met. But the key question is whether homeopathy is effective.

Consumer Reports concluded in its January 1987 issue: "Unless the laws of chemistry have gone awry, most homeopathic remedies are too diluted to have any physiological effect. . . . CU's medical consultants believe that any system of medicine embracing the use of such remedies involves a potential danger to patients whether the prescribers are M.D.'s, other licensed practitioners, or outright quacks. Ineffective drugs are dangerous drugs when used to treat serious or life-threatening disease. Moreover, even though homeopathic drugs are essentially nontoxic, self-medication can still be hazardous. Using them for a serious illness or undiagnosed pain instead of obtaining proper medical attention could prove harmful or even fatal."

Homeopathic leaders insist that their remedies are effective and that studies *do* support this viewpoint. They also suggest that homeopathy's popularity and long survival are evidence that it works. But the only way for homeopathy to gain acceptance by the scientific community would be to demonstrate positive results through repeated experiments designed with the help of critics and carried out with strict safeguards against experimenter bias and fraud.

If the FDA required homeopathic remedies to be proved effective in order to remain on the market, homeopathy would face extinction in the United States. But no indication exists that the agency is considering this. FDA officials regard homeopathy as relatively benign and believe that other problems should get enforcement priority. Moreover, if the FDA attacks homeopathy too vigorously, its proponents might even persuade Congress to rescue them. On the other hand, some level of enforcement is needed to prevent the homeopathic marketplace from getting completely out of hand. •