

NIKKEN RESEARCH INSTITUTE



WHITE PAPER

**MAGNETS IN WELLNESS AND HEALTHCARE:
REVIEW OF NIH/NCCAM WEB SITE**

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1. Introduction

The use of magnetic energy for therapeutic purposes is more widely accepted in the Western world today than it has ever been. Although not yet considered a mainstream approach, the application of magnets in addressing certain medical conditions is the subject of a research report by the National Center for Complementary and Alternative Medicine (NCCAM), a part of NIH, the National Institutes of Health.

The NIH traces its roots to 1887 when it began as a one-room laboratory created within the Marine Hospital Service. Today, the National Institutes of Health operates as a department of the U.S. Department of Health and Human Services. Its mission is to act as the steward of medical and behavioral research for the United States. The NIH is charged with the responsibility of pursuing fundamental knowledge regarding the nature and behavior of living systems, and application of that knowledge to extend healthy life and reduce the burdens of illness and disability.

As agents of the primary federal institution for conducting and supporting medical research, scientists working at the NIH investigate methods for preventing disease as well as investigating its causes. In turn, it is hoped that increased understanding of both will point the way to a cure. The NIH has grown considerably since its humble beginnings. Today it is composed of 27 Institutes and Centers.

One of the newest Centers within the NIH is the National Center for Complementary and Alternative Medicine. Established in 1998, NCCAM has been funded by Congress with more than \$120 million in appropriations. NCCAM is the federal government's lead agency for scientific research in complementary and alternative medicine — defined as a group of various medical and health care systems, practices, and products not presently considered part of conventional practice. Within the context of rigorous science, NCCAM is committed to exploring healing arts found outside the disciplines in traditional Western medicine.

2. Purpose of NCCAM

The mission of the NCCAM also includes the education of medical professionals in both complementary and alternative approaches. Lastly, this organization has taken on the task of disseminating authoritative information regarding new and old non-traditional methods of healing and treatment.

In line with its duty of informing the public, NCCAM has set up a comprehensive Web site that deals with a myriad of topics pertaining to complementary and alternative technologies. This Web site includes information in the general area of energy medicine. It covers such diverse sources as light therapy, qi gong and acupuncture. The page offering such background information is located at:

<http://nccam.nih.gov/health/backgrounds/energymed.htm>

More specific to an interest in magnetic energy, NCCAM has carefully constructed an extensive research report on the use of magnets and their effects. It is located at:

<http://nccam.nih.gov/health/magnet/magnet.htm>

This research report provides an overview of the use of magnets for pain, summarizes current scientific knowledge regarding their efficacy and points to additional sources of information. Following a listing of key points found within the site, the report employs a question and answer format to define magnetic energy, explore the history of its use and define terminology used in connection with the topic.

The report is careful to delineate the distinction between complementary and alternative medicine (CAM) and conventional medicine. It states that conventional medicine is an art practiced by holders of MD (physician), or DO (doctor of osteopathy) degrees and by allied professionals, including physical therapists, psychologists and registered nurses. NCCAM further differentiates between the use of the terms “complementary” and “alternative”. Its definition is that complementary medicine is employed “together with” conventional medicine, while alternative medicine is used “in place of” or “instead of” conventional medical practice.

3. CAM use in America: facts and figures

The Center estimates that 36% of the U.S. population is currently using some form of CAM. The vast majority are seeking ways to ameliorate pain, inflammation or insomnia. An interesting fact is that nearly 26% of those involved with CAM therapies have done so at the urging of their physician or conventional healthcare professional.

As one of the most-practiced forms of energy medicine, magnetic therapy is estimated to command nearly \$500 million per year in product sales and treatment fees, and is the second most used CAM after chiropractic. Some of the theories related to how magnets might work are elucidated on the NCCAM Web site. These include the hypotheses that magnetic energy alters cell function, acts as a conductor within the blood vessel and helps to flush out toxins.

4. Studies related to CAM

Rather than merely provide speculation regarding these possible mechanisms of action, NCCAM is funding clinical studies that investigate magnetic energy. Some of these studies include research in:

- Static magnets, for fibromyalgia pain and quality of life
- Pulsed electromagnets, for migraine headache
- Static magnets, for their effect on networks of blood vessels involved in healing
- Transcranial magnetic stimulation (TMS), for Parkinson's disease
- Electromagnets, for their effect on injured nerve and muscle cells.

In collaboration with the National Library of Medicine, NCCAM has developed a database offering citations to and brief summaries of articles devoted to CAM in scientifically based, peer-reviewed journals. Some of those citations and summaries are included within the NCCAM report as examples of the types of articles representing the present state of the art in magnetic energy research.

The report neither endorses nor rejects the use of magnetic energy. Their citation choices include studies indicating the efficacy of magnetic therapy as well as some that showed no difference in results between patients receiving magnetic energy and those receiving the sham control. The study summaries are divided by category, between studies investigating static magnets or electromagnets, and include the application of magnets employed to treat various pain and disease symptoms.