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# Magnets

Magnets have not been proven to work for any health-related purpose, yet static, or permanent, magnets are widely marketed for pain control. This fact sheet provides basic information about magnets for pain, summarizes scientific research, and suggests sources for additional information.

## Key Points

- Scientific evidence does not support the use of magnets for pain relief.
- Do not use magnets as a replacement for conventional medical treatment or as a reason to postpone seeing your health care provider about any health problem.
- Magnets may not be safe for some people, such as those who use pacemakers or insulin pumps, as magnets may interfere with the devices. Otherwise, magnets are generally considered safe when applied to the skin.
- Tell all your health care providers about any complementary health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

## About Magnets

A magnet produces a measurable force called a magnetic field. Static magnets have magnetic fields that do not change (unlike electromagnets, which generate magnetic fields only when electrical current flows through them). Magnets are usually made from metals (such as iron) or alloys (mixtures of metals, or of a metal and a nonmetal).

Magnets come in different strengths, often measured in units called gauss (G) or, alternatively, units called tesla (T; 1 T = 10,000 G). Magnets marketed for pain relief usually claim strengths of 300 to 5,000 G—many times stronger than the Earth's magnetic field (about 0.5 G) but much weaker than the magnets used for MRI machines (approximately 15,000 G or higher).

Magnets are often marketed for many different types of pain, including foot pain and back pain from conditions such as arthritis and fibromyalgia. Various products with magnets in them include shoe insoles, bracelets and other jewelry, mattress pads, and bandages.

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### Safety and Side Effects

- Magnets may not be safe for some people, such as those who use a pacemaker or an insulin pump; magnets may interfere with the functioning of the medical device. Otherwise, magnets are generally considered safe when applied to the skin.
- Reports of side effects or complications have been rare.

### What the Science Says About Magnets for Pain

Scientific evidence does not support the use of magnets for pain relief.

Preliminary studies looking at different types of pain—such as knee, hip, wrist, foot, back, and pelvic pain—have had mixed results. Some of these studies, including a 2007 clinical trial sponsored by the National Institutes of Health that looked at back pain in a small group of people, have suggested a benefit from using magnets. However, many studies have not been of high quality; they included a small number of participants, were too short, and/or were inadequately controlled. The majority of rigorous trials have found no effect on pain.

### If You Are Considering Using Magnets

- Do not use magnets or any unproven health practice to replace conventional health care or to postpone seeing a health care provider about pain or any other medical problem.
- Tell all your health care providers about any complementary or integrative health approaches you use. Give them a full picture of what you do to manage your health. This will help ensure coordinated and safe care.

### For More Information

#### NCCIH Clearinghouse

The NCCIH Clearinghouse provides information on NCCIH and complementary and integrative health approaches, including publications and searches of Federal databases of scientific and medical literature. The Clearinghouse does not provide medical advice, treatment recommendations, or referrals to practitioners.

Toll-free in the U.S.: 1-888-644-6226

TTY (for deaf and hard-of-hearing callers): 1-866-464-3615

Web site: [nccih.nih.gov](http://nccih.nih.gov)

E-mail: [info@nccih.nih.gov](mailto:info@nccih.nih.gov)

#### PubMed®

A service of the National Library of Medicine, PubMed contains publication information and (in most cases) brief summaries of articles from scientific and medical journals.

Web site: [www.ncbi.nlm.nih.gov/pubmed](http://www.ncbi.nlm.nih.gov/pubmed)

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### NIH Clinical Research Trials and You

The National Institutes of Health (NIH) has created a Web site, NIH Clinical Research Trials and You, to help people learn about clinical trials, why they matter, and how to participate. The site includes questions and answers about clinical trials, guidance on how to find clinical trials through [ClinicalTrials.gov](http://ClinicalTrials.gov) and other resources, and stories about the personal experiences of clinical trial participants. Clinical trials are necessary to find better ways to prevent, diagnose, and treat diseases.

Web site: [www.nih.gov/health/clinicaltrials/](http://www.nih.gov/health/clinicaltrials/)

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