

PSORIATIC ARTHRITIS NEWS AND VIEWS

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PSORIATIC ARTHRITIS MEDICAL NEWS

IN FIGHT VS. CHOLESTEROL, CLOSING IN ON A SUPERPILL GROTON, Conn. (The Boston Globe)

The way we think about heart disease and cholesterol, and the drugs that can control them, got a powerful jolt last week.

New research showed that drugs that sharply lower levels of LDL, or bad cholesterol, might benefit millions more people than are taking them now.

However, largely out of sight, researchers have been nearing a breakthrough on the next frontier in fighting heart disease -- a drug that raises good cholesterol.

Called HDL, for high-density lipoprotein, good cholesterol helps the body eliminate bad cholesterol and can clear out clogged arteries.

"We're very encouraged that if we can raise HDL, we will be able to deter cardiovascular disease," said H. Bryan Brewer Jr., a researcher at the National Institutes of Health.

Pressing on after many of the world's other big drug companies had given up, Pfizer Inc. has spent \$1 billion since the early 1990s trying to develop a medicine to raise good cholesterol. The company is in late-stage clinical trials, as thousands of patients test its new drug. If all goes smoothly, it could win marketing approval from the Food and Drug Administration in three years.

Pfizer makes the world's best-selling prescription cholesterol drug, Lipitor. In what could be a marketing and medical coup, the company hopes to combine its two drugs into one super pill that would simultaneously lower bad cholesterol and raise the good.

"There is a lot of excitement, because people are starting to hear that Pfizer has this compound that it considers one of its top drugs for the future,"

said Margaret Brousseau, an assistant professor at Tufts School of Medicine who has worked on early clinical trials for the drug. "There certainly is a need" for a drug that raises good cholesterol.

Although Pfizer appears to have the lead in this research, competition is beginning to heat up. A Japanese company, Japan Tobacco Inc., is targeting the same protein as Pfizer's drug and has completed initial clinical trials.

Avant Immunotherapeutics Inc., of Needham, Mass., is working on a vaccine to raise good cholesterol.

Niacin, a vitamin that raises good cholesterol, though slightly, is marketed by Nos Pharmaceuticals Inc. Nos has time-released versions of the vitamin that it says are the only FDA-approved products to enhance HDL.

Pfizer's advantage is that its compound appears to raise good cholesterol by

a larger percentage, Brousseau said. "They're furthest along," she said. "There isn't really an agent currently available that raises HDL significantly."

Americans are familiar with the dangers of bad cholesterol, thanks to hundreds of millions of dollars of advertising for such drugs as Lipitor. That drug reduces the amount of low-density lipoprotein, or LDL, in the bloodstream. LDL contributes to the buildup of plaque in arteries, which can cause heart disease.

A major study released last week suggested that Lipitor is so effective that millions more Americans than previously thought would benefit by taking the drug.

In the 1980s, medical researchers at Columbia University found a key clue about good cholesterol. They discovered that some Japanese families with a deficiency in a specific protein called CETP had high levels of good cholesterol in their bloodstreams and were less likely to suffer from heart disease. If companies could find a drug to suppress that protein, theoretically they could raise good cholesterol by artificial means.

At Pfizer, the search for a drug to raise good cholesterol began more than a decade ago at the company's sprawling laboratory campus on the east bank of the Thames River in Groton. Pfizer researchers screened hundreds of compounds and found several candidates. But most were either too toxic or not powerful enough. One early version was so weak that a patient would have to swallow a football-sized pill to benefit.

Stumped, Pfizer was preparing to pull the plug on its project. Other companies had already quit.

"I never told the team to stop, but I certainly questioned how much longer we could afford to continue," said Thomas Beyer, Pfizer's vice president of cardiovascular metabolic disease discovery. "No matter how compelling the science is, if you can't transfer that to a pill, you're wasting your time." But before giving up for good, Pfizer assigned chemist Roger Ruggieri, then 31, to investigate avenues that had initially seemed less promising. Ruggieri methodically swapped atoms on the target molecule, mixing batches of chemicals, and then running tests to measure the new molecules' effect on CETP. The work was similar to a game of Battleship, where a player shoots blindly in a grid pattern, hoping to hit something that will guide a tighter search.

Ruggieri said he saw the task as scut work and not promising. "I was not looking fondly on this assignment, but I was just out of grad school and postdoc, so I tried very hard and very much wanted to get in and make something happen," he said.

The breakthrough came in August 1994, a year after Ruggieri started working on the project. One morning a protein test showed that introducing a new atom dramatically boosted the molecule's potency.

The numbers were so good that at first, no one at Pfizer believed them.

"It was such a profound change in activity that we immediately thought it had to be wrong," Ruggeri said. "We got new material, and we redid the test very carefully, and it happened again. It was incredibly elating." A team leader returned from his summer vacation to find a copy of the latest test results taped to his computer terminal. He thought it was a joke.

Even after the positive test results on the compound, called torcetrapib, were proven, the researchers had to figure out a way to deliver the experimental drug into the bloodstream. Biologist Ronald Clark found the right medium by experimenting with olive oil. Next came tests in mice and monkeys. Pfizer went public with its discovery in 1997, when it filed a patent for the new compound.

"It wasn't until 1999 that we finally tested it in man," Clark said.

Early clinical trials for torcetrapib show that Pfizer's new treatment raises good cholesterol between 16 percent and 91 percent, the company said. Part of the gamble for Pfizer is whether the trials will definitively prove that using its drug to raise good cholesterol will reduce the incidence of heart attacks and disease. So far, the approach holds promise.

"Both the animal studies and the epidemiological studies suggest that raising good cholesterol will be effective," said Brewer, the NIH researcher. One potential downside is the possibility that raising good cholesterol too much could worsen buildup in arteries, he said. Finding the right balance is key, Brewer added.

At Pfizer, Beyer said the research remains risky despite its promise. The company is testing the drug in double-blind phase III clinical trials -- which compare the drug's effectiveness against a placebo. A phase III trial, if successful, is the last step before a company submits an application for a drug's approval to the FDA. "This is still a billion-dollar gamble," Beyer said. Copyright 2004 the Boston Globe.

WOMEN USE MORE MEDICATIONS THAN THOUGHT

By Kathleen Doheny HealthDay Reporter (HealthDayNews)

Women take more medications and herbal supplements than experts think, new research finds, and they're not likely to tell their doctors about everything that's in their medicine closet.

Such omissions could jeopardize their health and increase the chances of adverse drug interactions or drug ineffectiveness, says study author Timothy Tracy, a professor of experimental and clinical pharmacology at the University of Minnesota College of Pharmacy. His report appears in the Feb. 24 issue of the American Journal of Obstetrics and Gynecology.

In a sample of 567 women from five rural clinics who went to see their gynecologist, 92 percent took prescription medications and 96.5 percent used over-the-counter medicines. In addition, 59.1 percent used herbal supplements.

Among the most common prescription drugs taken by the women were antibiotics, birth control pills, antidepressants and blood pressure medicine.

Over-the-counter drugs most often taken included painkillers, vitamins and antacids.

Peppermint, cranberry, aloe, herbal tea, ginseng, echinacea and St. John's wort were most commonly cited as herbals taken.

Drug interactions between prescription drugs, over-the-counter medicines and herbal remedies can be dangerous. St. John's wort, for instance, can interfere with the effectiveness of birth control pills.

When it came to telling their doctors about their complete medical regimen, however, the women fell short.

"One of the things that surprised us the most is the number of medications they didn't tell their gynecologist about," Tracy says. "They tended to talk about medications either prescribed by that doctor or for diseases treated by that doctor."

For instance, they might not tell a gynecologist about blood pressure drugs, which were prescribed by their internist, but would mention birth control pills.

While the survey sample included only rural women, Tracy says previous research has found usage patterns are similar in urban women.

The lack of communication surprised Tracy. "You would think that when you go to a provider and they say, what medications are you taking, women would tell all the medications."

The sheer number of prescription drugs used by the patients surprised Tracy, too. In the youngest bracket, women under age 38, 26 percent took four or more prescription medicines in the past year. In the 38-to-55 bracket, 45 percent took four or more, and in the 56 and older bracket, 57 percent took four or more prescription drugs.

The study results don't surprise Michael Cohen, president of the Institute for Safe Medication Practices. "What this study shows is patients often don't understand what the doctor is saying," Cohen says. "When he asks, are you taking

any medications, they think any obstetrical medications [if the gynecologist is asking]."

Women, he adds, "need to understand there can be adverse interactions from medications prescribed by their physicians." It's crucial that each doctor know about all the medicines, both prescription and nonprescription, as well as herbal remedies, that a patient is taking.

Tracy says doctors may have to question patients more closely to get the answers they need. Ideally, he says, they should ask specifically about prescription medicines, over-the-counter drugs and herbal supplements, rather than simply asking the patient what medicines she is taking.

SOURCES: Michael Cohen, R.Ph., Sc.D., president, Institute for Safe Medication Practices, Huntingdon Valley, Pa.; Timothy Tracy, Ph.D., professor, experimental and clinical pharmacology, University of Minnesota College of Pharmacy and the University of Minnesota Center of Excellence in Women's Health, Minneapolis; Feb. 24, 2004, American Journal of Obstetrics and Gynecology
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WHAT IS COMPLEMENTARY AND ALTERNATIVE MEDICINE (CAM)?

There are many terms used to describe approaches to health care that are outside the realm of conventional medicine as practiced in the United States.

This

fact sheet explains how the National Center for Complementary and Alternative Medicine (NCCAM), a component of the National Institutes of Health, defines some of the key terms used in the field of complementary and alternative medicine (CAM). A dictionary of terms can be found at the end of this fact sheet.

Complementary and alternative medicine, as defined by NCCAM, is a group of diverse medical and health care systems, practices, and products that are not presently considered to be part of conventional medicine.^{1,2} While some scientific evidence exists regarding some CAM therapies, for most there are key questions that are yet to be answered through well-designed scientific studies — questions such as whether they are safe and whether they work for the diseases or medical conditions for which they are used. The list of what is considered CAM, changes continually, as those therapies that are proven safe and effective become adopted into conventional health care and as new approaches to health care emerge.

ARE COMPLEMENTARY MEDICINE AND ALTERNATIVE MEDICINE DIFFERENT FROM EACH OTHER?

Yes, they are different. Complementary medicine is used together with conventional medicine. An example of a complementary therapy is using aromatherapy to help lessen a patient's discomfort following surgery.

Alternative medicine is used in place of conventional medicine. An example of an alternative therapy is using a special diet to treat cancer instead of undergoing surgery, radiation, or chemotherapy that has been recommended by a conventional doctor.

WHAT IS INTEGRATIVE MEDICINE?

Integrative medicine, as defined by NCCAM, combines mainstream medical therapies and CAM therapies for which there is some high-quality scientific evidence of safety and effectiveness.

WHAT ARE THE MAJOR TYPES OF COMPLEMENTARY AND ALTERNATIVE MEDICINE? NCCAM classifies CAM therapies into five categories, or domains:

Alternative Medical Systems

Alternative medical systems are built upon complete systems of theory and practice. Often, these systems have evolved apart from and earlier than the conventional medical approach used in the United States. Examples of alternative

medical systems that have developed in Western cultures include homeopathic medicine and naturopathic medicine. Examples of systems that have developed in non-Western cultures include traditional Chinese medicine and Ayurveda.

Mind-Body Interventions

Mind-body medicine uses a variety of techniques designed to enhance the mind's capacity to affect bodily function and symptoms. Some techniques that were considered CAM in the past have become mainstream (for example, patient support groups and cognitive-behavioral therapy). Other mind-body techniques are still considered CAM, including meditation, prayer, mental healing, and therapies that use creative outlets such as art, music, or dance.

Biologically Based Therapies

Biologically based therapies in CAM use substances found in nature, such as herbs, foods, and vitamins. Some examples include dietary supplements, herbal products, and the use of other so-called "natural" but as yet scientifically unproven therapies (for example, using shark cartilage to treat cancer).

Manipulative and Body-Based Methods

Manipulative and body-based methods in CAM are based on manipulation and/or movement of one or more parts of the body. Some examples include chiropractic or osteopathic manipulation, and massage.

Energy Therapies

Energy therapies involve the use of energy fields. They are of two types:

Biofield therapies are intended to affect energy fields that purportedly surround and penetrate the human body. The existence of such fields has not yet been scientifically proven. Some forms of energy therapy manipulate biofields by

applying pressure and/or manipulating the body by placing the hands in, or through, these fields. Examples include qi gong, Reiki, and Therapeutic Touch.

Bioelectromagnetic-based therapies involve the unconventional use of electromagnetic fields, such as pulsed fields, magnetic fields, or alternating current or direct current fields.

WHAT IS NCCAM'S ROLE IN THE FIELD OF COMPLIMENTARY AND ALTERNATIVE MEDICINE?

NCCAM is the Federal Government's lead agency for scientific research on complementary and alternative medicine. NCCAM's mission is to explore complementary and alternative healing practices in the context of rigorous science, to train CAM researchers, and to inform the public and health professionals about the results of CAM research studies.

Notes:

1. Conventional medicine is medicine as practiced by holders of M.D. (medical

doctor) or D.O. (doctor of osteopathy) degrees and by their allied health professionals, such as physical therapists, psychologists, and registered nurses.

Other terms for conventional medicine include allopathy; Western, mainstream, orthodox, and regular medicine; and biomedicine. Some conventional medical practitioners are also practitioners of CAM.

2. Other terms for complementary and alternative medicine include unconventional, non-conventional, unproven, and irregular medicine or health care.

3. Some uses of dietary supplements have been incorporated into conventional medicine. For example, scientists have found that folic acid prevents certain birth defects, and a regimen of vitamins and zinc can slow the progression of an eye disease called age-related macular degeneration (AMD).

DICTIONARY OF TERMS

Aromatherapy ("ah-roam-uh-THER-ah-py"): Aromatherapy involves the use of essential oils (extracts or essences) from flowers, herbs, and trees to promote health and well-being.

Ayurveda ("ah-yur-VAY-dah") is a CAM alternative medical system that has been practiced primarily in the Indian subcontinent for 5,000 years. Ayurveda includes diet and herbal remedies and emphasizes the use of body, mind, and spirit in disease prevention and treatment.

Chiropractic ("ki-roh-PRAC-tic") is a CAM alternative medical system. It focuses on the relationship between bodily structure (primarily that of the spine) and function, and how that relationship affects the preservation and restoration of health. Chiropractors use manipulative therapy as an integral treatment tool.

Dietary supplements: Congress defined the term "dietary supplement" in the Dietary Supplement Health and Education Act (DSHEA) of 1994. A dietary supplement is a product (other than tobacco) taken by mouth that contains a "dietary ingredient" intended to supplement the diet. Dietary ingredients may include vitamins, minerals, herbs or other botanicals, amino acids, and substances such as enzymes, organ tissues, and metabolites. Dietary supplements come in many forms, including extracts, concentrates, tablets, capsules, gel caps, liquids, and powders. They have special requirements for labeling. Under DSHEA, dietary supplements are considered foods, not drugs.

Electromagnetic fields: Electromagnetic fields (EMFs, also called electric and magnetic fields) are invisible lines of force that surround all electrical devices. The Earth also produces EMFs; electric fields are produced when there is thunderstorm activity, and magnetic fields are believed to be produced by electric currents flowing at the Earth's core.

Homeopathic ("home-ee-oh-PATH-ic") medicine is a CAM alternative medical system. In homeopathic medicine, there is a belief that "like cures like" meaning that small, highly diluted quantities of medicinal substances are given to

cure symptoms, when the same substances given at higher or more concentrated doses would actually cause those symptoms.

Massage ("muh-SAHJ") therapists manipulate muscle and connective tissue to enhance function of those tissues and promote relaxation and well-being.

Naturopathic ("nay-chur-o-PATH-ic") medicine is a CAM alternative medical system in which practitioners work with natural healing forces within the body, with a goal of helping the body heal from disease and attain better health. Practices may include dietary modifications, massage, exercise, acupuncture, minor surgery, and various other interventions.

Osteopathic ("ahs-tee-oh-PATH-ic") medicine is a form of conventional medicine that, in part, emphasizes diseases arising in the musculoskeletal system.

There is an underlying belief that all of the body's systems work together, and disturbances in one system may affect function elsewhere in the body. Some osteopathic physicians practice osteopathic manipulation, a full-body system of hands-on techniques to alleviate pain, restore function, and promote health and well-being.

Qi gong ("chee-GUNG") is a component of traditional Chinese medicine that combines movement, meditation, and regulation of breathing to enhance the flow of qi (an ancient term given to what is believed to be vital energy) in the body, improve blood circulation, and enhance immune function.

Reiki ("RAY-kee") is a Japanese word representing Universal Life Energy. Reiki is based on the belief that when spiritual energy is channeled through a Reiki practitioner, the patient's spirit is healed, which in turn heals the physical body.

Therapeutic Touch is derived from an ancient technique called laying-on of hands. It is based on the premise that it is the healing force of the therapist that affects the patient's recovery; healing is promoted when the body's energies are in balance; and, by passing their hands over the patient, healers can identify energy imbalances.

RESOURCES:

For more information on CAM or NCCAM, contact
NCCAM Clearinghouse
Toll-free: 1-888-644-6226
International: 301-519-3153
TTY (for deaf or hard-of-hearing callers): 1-866-464-3615

Web site: nccam.nih.gov
Address: NCCAM Clearinghouse, P.O. Box 7923, Gaithersburg, MD 20898-7923
Fax: 1-866-464-3616
Fax-on-Demand Service: 1-888-644-6226

For more information on dietary supplements, contact:
Office of Dietary Supplements
National Institutes of Health
Web site: ods.od.nih.gov

Center for Food Safety and Nutrition
U.S. Food and Drug Administration
5100 Paint Branch Parkway
College Park, MD 20740-3835
Web site: vm.cfsan.fda.gov

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BAD HABITS KILL ONE-THIRD OF AMERICANS

By Ed Edelson HealthDay Reporter

Poor eating habits, lack of exercise and smoking are to blame for more than a third of all deaths in the United States.

Tobacco continues to be the number one killer. It was responsible for 435,000 deaths -- or 18.1 percent of all fatalities -- in the year 2000, says a report in the March 10 issue of the Journal of the American Medical Association.

The study was done by researchers at the U.S. Centers for Disease Control and Prevention.

Poor diet and lack of physical activity, taken together because of their impact on heart disease, stroke and other cardiovascular conditions, was a close second, causing 400,000 deaths, or 16.6 percent of the total.

Alcohol came in a rather distant third. About 85,000 Americans drank themselves to death that year, 3.5 percent of all deaths, the report says.

In fourth place were microbial infections such as influenza and pneumonia, which caused 75,000 deaths.

Then came toxic agents such as pollutants and asbestos (55,000 deaths); motor vehicle accidents (43,000); firearms (29,000); sexual behavior that led to diseases such as AIDS (20,000); and illicit drug use (17,000).

So, many Americans would live longer if they paid attention to the longstanding advice on the value of diet and exercise, says study leader Ali H. Mokdad, chief of the CDC's Behavioral Surveillance Branch.

"Americans just haven't changed their behavior enough," he says.

Many are trying, Mokdad says. He cites a 1999 report showing that more than 75 percent of Americans were trying to lose weight. "But only 20 percent were doing it," he adds.

U.S. health officials, including CDC Director Dr. Julie Gerberding, discussed the new findings Tuesday at a news conference in Washington, D.C., where they unveiled a public service ad campaign to get Americans to pay attention to the dangers of inactivity and obesity, the Associated Press reports.

The overall mortality picture hasn't changed much during the past decade, says Dr. J. Michael McGinnis, senior vice president of the Robert Wood Johnson Foundation. He did a comparable study in 1990, and is co-author of an editorial accompanying the Mokdad report.

But some trends have changed, he says.

The two most noticeable changes are that "the impact of diet and lack of physical activity has increased as a source of preventable mortality, and it appears that there has been a slight decline in the contribution of sexual behavior, a change triggered by AIDS," McGinnis says.

It's vital that Americans improve their diet and exercise habits, but "these things don't turn on a dime," he says. "It's like turning a battleship."

Yet tobacco use is a prime example of how such changes can occur, McGinnis says. When the U.S. Surgeon General issued the 1964 landmark report on tobacco and its health risks, 64 percent of Americans smoked. Now 23 percent do -- still too many, but a remarkable reduction, he says.

The problem, McGinnis says, is that poor dietary habits are built into the American way of life, and "systematically, over the last 50 years, we have engineered physical activity out of our environment."

"It is vitally important that we deal with these things as cultural, not individual, choices," he says.

The CDC itself offers a model of how a large organization can promote a healthy lifestyle, Mokdad says. The food service vendor at its Atlanta headquarters offers a large variety of fruits, vegetables and other healthful choices. Employees are given time during the workday to exercise, and there is a free health club available to them. Smoking is banned in all buildings and soon will be forbidden on the entire campus.

"Corporations are starting to realize that such measures can save money," Mokdad says. "The money that goes into prevention reduces medical costs."

SOURCES: Ali H. Mokdad, chief, U.S. Centers for Disease Control and Prevention's Behavioral Surveillance Branch, Atlanta; J. Michael McGinnis, M.D., senior vice president, Robert Wood Johnson Foundation, Princeton, N.J.; March 10, 2004, Journal of the American Medical Association Copyright © 2004 ScoutNews, LLC.

TINY MARKERS MAY POINT TO ARTHRITIS PROGRESSION By Steven Reinberg HealthDay Reporter

A study may help doctors determine who needs aggressive treatment for the rheumatoid form of the disease.

Finding biomedical markers that indicate progressive arthritis is key to determining which patients need aggressive therapy and which ones don't, says a

new study.

"We still are very poor at profiling who needs aggressive therapy and who is going to have progressive disease and who is not," says Dr. Eric L. Matteson, a professor of medicine at the Mayo Clinic College of Medicine.

To try to find markers that might indicate progressive arthritis, Matteson's group studied 111 patients who had early-stage rheumatoid arthritis, according to their report in the January issue of *Arthritis and Rheumatism*.

All the patients were started on hydroxychloroquine, a mild treatment, and progressed to more dramatic treatment with methotrexate or other drugs, depending on how their symptoms improved, Matteson notes.

The researchers took blood tests and X-rays and looked at clinical symptoms to find markers that might indicate the odds for disease progression.

The patients were followed for two years. Matteson's team found 52 percent of the patients had their symptoms controlled by methotrexate and NSAIDs and did not need more aggressive therapy. In addition, 48 percent of the patients did not develop progressive disease.

Matteson says that clinical markers, such as functional status, the number of joints involved, joint pain and swelling were not helpful in determining disease progression.

The things that predicted progression were positive rheumatoid factor -- an antibody found in a blood test -- and some genetic variations, particularly one called HLA-DRB1*04, he says.

They also found some novel markers that were promising in predicting disease progression. These are high levels of CD4 and CD28 null T-cells, which are indicators of premature aging of the immune system, Matteson notes.

In addition, Matteson's team discovered a different form of a gene of uteroglobin, a protein, appears to protect against joint damage.

"There are a lot of people who have mild disease and do well with mild therapy," Matteson says. "There are some genetic markers that are predictive of progressive disease, and maybe we should think about using these markers in clinical practice for guiding our therapy."

Right now treatment is guided by clinical presentation, Matteson says. But in the future these markers might be used to identify people who will have good and bad treatment outcomes. "If we knew early which patients were going to have more severe disease, we could treat them more aggressively at the outset."

Dr. John Klippel, president and chief executive officer of the Arthritis Foundation, says, "trying to improve our ability to predict the outcome of rheumatoid arthritis is important and the findings of this study are an important step."

Klippel says these findings add to the understanding of the basic mechanisms of arthritis. For example, the findings raise the knowledge of the influence of genetics and the aging of the immune system on arthritis.

"In addition, the understanding of the importance of uteroglobin as a protective pathway in rheumatoid arthritis has the potential for developing therapies," Klippel says.

"These findings will allow rheumatologists to be more accurate in predicting joint damage, and as a consequence it will help in making decisions about appropriate therapy," he says.

SUNLIGHT REDUCES NEED FOR PAIN MEDICATION

March - 2004 (USA TODAY)

Sunlight may be a key prescription for easing surgical pain and saving millions of dollars in hospital pharmacy costs, according to a study out today.

Surgery patients in rooms with lots of natural light took less pain medication, and their drug costs ran 21% less than for equally ill patients assigned to darker rooms, a scientist will report.

Those in the brighter rooms also had lower stress levels and said they felt less pain the day after surgery and at discharge, says Bruce Rabin, a physician and immunologist at the University of Pittsburgh. He'll present the findings at the American Psychosomatic Society meeting in Orlando.

It's thought to be the first evidence that sunlight can affect the perception of pain.

Findings will generate major attention at hospitals, predicts Dale Woodin, a health care engineering expert with the American Hospital Association in Chicago. "Whenever you can tie the environment to clinical outcomes and costs like this, it's huge," Woodin says.

Light meters showed that darker rooms at Montefiore University Hospital in Pittsburgh had 46% less natural light than those on the sunny side, says Rabin and co-author Jeffrey Walch. They randomly housed 89 spinal fusion surgery patients on one side or the other. Although the hospital light came from the sun, some bulbs on the market are advertised as duplicating natural sunlight, Rabin says.

Hospital pharmacies spent more than \$21 billion in 2002, says pharmacist Lee Vermeulen of the University of Wisconsin, whose team does yearly reports from numbers collected by IMS Health.

"It's very impressive to get savings in the 20% range," Vermeulen says. Pain medications are not among the most expensive drugs used in hospitals, he says. But heavy use of pain relief drugs often creates gastrointestinal problems and delays walking, which can cause doctors to prescribe blood thinners and other expensive drugs. Rabin and Walch haven't looked at overall drug usage yet.

There's strong evidence that people feel less pain if they're in a better

mood and under less stress, says Russell Portenoy, chair of the department of pain medicine and palliative care at Beth Israel Medical Center in New York. Bright light has been shown to improve mood, "so mood may be what's leading them

to use less pain medication," he says. Bright light triggers the release of "feel good" brain chemicals such as serotonin, some research has found.

Also, nurses and doctors may be cheered by the brightly lit rooms and treat patients differently than those in dim rooms. Such differing treatment could reduce drug use, too, Portenoy adds.

Hospital planners are aiming for more natural light, says Woodin, but it's often easier to capture sunlight with a new building than a remodeled older one.

"Even the older ones are trying to move toward more light. We really need to get away from those long, dark corridors of old-time hospitals." Copyright 2004 USA TODAY, a division of Gannett Co. Inc

Good health to all,

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