

Health & SCIENCE

Study finds aerobic exercise reduces aging pain

Stretch more and you hurt less. A study of older people finds flexibility training reduces the pain that comes with aging.

"One seems to go with the other," said researcher Abby C. King of Stanford University Medical School. "And seniors say pain is the single most important thing that affects quality of life."

King and her colleagues studied residents of the Sunnyvale, Calif., area. The 67 women and 36 men had an average age of 70. Half took part in moderate-intensity aerobics such as walking and low-impact aerobic dance, plus strength-training exercises using elastic bands.

The other group was assigned to

stretching and flexibility exercises. Both groups met about one hour twice a week in class and did similar workouts at home twice a week more.

After a year, the stretching and flexibility group reported that they were living with less pain, while the fitness and strength group was reporting a bit more pain, King said. "Those who did three or four days a week of stretching and flexibility had significant reductions," she said.

An activity that could reduce pain is important for seniors because they "are invariably dealing with chronic pain," King said. Half of the people in the study were arthritics, a proportion similar to that of the general population in the age group, she

said.

Men had proportionately greater increases than women in flexibility, but that's because men had further to go, King said. Men were less flexible at the start and apparently needed the exercises more, she said. For instance, men in the flexibility arm of the study had a 14 percent gain in a sit-and-reach test, while women improved 6 percent, she said.

Experts are not sure exactly why people get more creaky as they get older, said Stanford colleague William L. Haskell. But much of it results simply from literally not extending themselves, he said.

"It's a downward spiral effect. With lack of use, muscles and ten-

dons shorten," Haskell said. "And if you exercise less, if you become more creaky, that's an impediment to further exercise."

Differences in exercise style may contribute to this, Haskell said. Women historically have tended more toward movement exercises such as aerobic dance, while men tended toward muscle-building exercises such as weight training, he said.

Arthritis also becomes more common with age, but range-of-motion exercises often are prescribed to keep the joints moving as smoothly as possible, Haskell said.

Flexibility problems such as finding it difficult to bend to open a drawer, or to put on a pullover shirt,

might not start interfering with quality of life until 75-80 years of age, Haskell said. Just the same, seniors who want to stay active ought to start working early on flexibility, he said.

"It's very important for people in their 50s to begin to think about maintaining their flexibility so they don't approach this threshold of disability," Haskell said. "To restore function at an older age is a lot more difficult than to maintain it."

Simple stretching is still no substitute for exercise, which also ought to be done, King said. The stretching group lost strength over the year, compared with the aerobics-weights group, which gained strength, she said. "If you don't use it, you lose it,

even over one year," she said.

The study supports the idea that a comprehensive program of aerobics, strength and stretching is best, commented Russell R. Pate of the University of South Carolina, who was not involved in the research. "There's no magic bullet, no single type of exercise that provides all the benefits associated with different forms of exercise," he said.

The research highlights the need for people to work on flexibility, Pate said. Flexibility tends to be the most often ignored of the three, he said.

Regular, thorough stretching may retard the loss of flexibility over time, Pate said.

New rules to fight emissions

With little room for landfills, Japan burns most of its trash. Now, fears are increasing that the country's incinerators are spreading highly toxic dioxin emissions that may be causing health problems.

Complaints of numbness, dizziness and rashes have become common in areas with a high density of incinerators, and a citizens' group says infant mortality rates are rising in one Tokyo suburb.

Dioxin has been linked to cancer, birth defects and other health problems, and dioxin pollution has been the subject of hundreds of lawsuits in the United States.

Government studies show that 80 to 90 percent of dioxin emissions in Japan come from incinerators that burn three-fourths of the country's garbage. The rest is buried in landfills.

Japanese media reports say dioxin levels in the breast milk of women living around the plants are

higher than among women in other industrial nations.

Japanese researchers have linked ingestion of dioxins through breast milk to low levels of thyroid hormones in infants. Some are investigating the possibility that this may affect children's ability to learn.

In the Tokyo suburb of Tokorozawa, a city with 48 incinerators, residents are worried that dioxin may be behind a recent rise in the infant mortality rate.

Michio Tanahashi, a geophysicist who campaigns against dioxin emissions, discovered from government statistics that Tokorozawa's infant mortality rate in the past nine years has been as much as 70 percent higher than the average for the rest of the state.

"The death rate for new-born babies shot up in direct relation to the increase in waste incinerators in the area," said activist Hatsue Shitaba.

Under mounting pressure, the central government announced this

week it will impose limits on dioxin emission levels from waste incinerators. But critics say the new rule will have little effect because no punishment is provided for offenders.

"It's a positive step, but there's no way of knowing if they will be able to enforce the measures," said Shitaba.

Still, many protesters say that government intervention can go only so far in reducing the danger of dioxin emissions.

"Japanese people have to become aware of the urgency of the problem," said Yoko Tomiyama of the Japan Consumers Association. "It's essential that individuals learn once again how to re-use products instead of just throwing them away."

Earlier this month, the health ministry said 72 of the 1,150 incinerators that replied to its survey were emitting more than the recommended limit for dioxins.

Ring implant surgery offers new vision

Tiny, transparent rings implanted into the cornea may be the newest hope for nearsighted adults fed up with glasses and contacts.

The plastic rings, which are slightly thicker than a contact lens, would be an alternative to permanent vision correction procedures such as radial keratotomy and laser treatments.

The rings are designed to be permanent but can be removed if cheaper procedures are developed or if wearers don't like them.

Doctors at Emory University in Atlanta and nine other health centers across the country are completing tests on the rings before they go to the Food and Drug Administration for approval.

If approved, they're expected to help people who have mild nearsightedness—about 20 million adults.

"It's certainly an extremely intriguing alternative," said Dr. Roger Steinert of Harvard University. "These are quite successful, but they are not perfect."

Doctors implant two crescent shapes to form a ring around the cornea, a clear window that covers the pupil and iris. Emory doctors

have implanted them in about 42 of the 45 patients in the study.

Clemmie Perry, an IRS equal-opportunity counselor, wanted to get rid of her glasses, which often give her headaches because she constantly put them on and off to study reports.

"After a while, taking them on and off gives me such a headache, I just have to keep them on," said Perry, 49, of College Park, Ga.

She chose the rings over irreversible surgery.

Some 30,000 people have sought the laser surgery called photorefractive keratotomy, in which a blast of light helps to reshape the cornea. About 250,000 people a year get radial keratotomy, in which a doctor makes several incisions in the cornea to flatten it.

Patients typically pay \$1,500 to \$2,000 per eye for laser surgery, while radial keratotomy costs \$1,000 to \$1,500 an eye. KeraVision Inc. of Fremont, Calif., which makes the rings, said the cost of the rings would be comparable to radial keratotomy.

"I wasn't sure about the lasers," said Ms. Perry. "I was really comforted in the fact that these could be taken out if they didn't work."

The rings took 10 years to develop. They are made of a type of plastic that is used in lens implants in cataract surgery.

Here's how it works:

Patients get anesthetic eye drops to numb the eye, but are awake during the procedure. The doctor clamps the lids open, mops off the eye and uses a machine to mark with ink the spots for the rings.

Using a tiny spatula, the doctor inserts the crescents into pockets cut into the cornea. The procedure takes about 30 minutes.

Dr. H. Dwight Cavanagh, vice chairman of ophthalmology at the University of Texas Southwestern Medical Center, said the rings likely won't replace laser surgery.

"I tell my patients that there aren't any bad devices here," said Cavanagh. "It's just knowing the good and bad things about each device and making a choice."

"There's always going to be a better, faster, lighter and cheaper way to correct vision," said Steinert. "But it's like buying a computer. You have to decide what you can live with or wait for something better to come along."

Depression brain problem found

Brain scans of people with depression or manic-depression found that a tiny area of the brain was shrunken, suggesting a place to look for biological roots of the disorders.

The area, which lies about three inches behind the bridge of the nose, was found to be 39 percent smaller than usual in manic-depressive patients and 48 percent smaller than normal in patients with depression.

Both sets of patients in the study had inherited tendencies toward the illnesses, revealed because each had a parent or sibling who was also affected.

Scientists don't know yet whether the shrinkage is a cause or an effect of the disorders, said researcher Dr. Wayne Drevets of the University of Pittsburgh Medical Center.

Previous studies of both disorders

have found other anatomical abnormalities in the brain. Drevets and co-authors present the new work in the April 24 issue of the journal *Nature*.

The shrunken areas also showed decreased brain cell activity, probably as a result of the shrinkage, he said. It's not clear just what kinds of cells are missing to produce the shrinkage, he said.

Procter & Gamble, others plan Website on animal testing research CINCINNATI (AP) - Procter & Gamble Co. said it and other organizations will develop an Internet site for exchange of information about how to reduce the use of animals in product testing.

P&G said it would be part of a coalition that will develop a site on the World Wide Web. Other coalitions

members include the Humane Society of the United States, the Center for Alternatives for Animal Testing at the Johns Hopkins University School of Public Health, the U.S. Department of Agriculture, the Food and Drug Administration and the National Institutes of Health.

The Website will allow scientists, educators, veterinarians and others to obtain information about alternatives to animal use in product testing.

Animal-rights activists have criticized Cincinnati-based Procter & Gamble for years because of the company's continuing use of animals in product testing. The company has said it is working to reduce the number of laboratory animals it uses, but would not provide specific numbers.

Birth pill danger exaggerated

Birth control pills do not increase the risk of heart attacks, World Health Organization researchers reported Friday.

The study follows research that shows the pill does not increase the risk of a stroke although some types can increase the very small risk of a blood clot.

Neil Poulter and colleagues at University College, London University, along with researchers at twenty-one other institutions in Asia, Europe, Latin America and Africa, gathered information on 368 women aged between 20 and 44 who had heart attacks.

Women who already had some risk factors for heart attacks—such as smokers and those with high blood pressure—further increased that risk when they took the pill.

But women with no other risks do not have more heart attacks on the pill than women not taking it, they wrote in the *Lancet* medical journal.

"Very few (heart attacks) were identified among women who had no cardiovascular risk factors and who reported that their blood pressure had been checked before oral contraceptive use," they wrote.

The risk was only "substantial"—more than four cases per 100,000 women—in women over 35 who smoked.

Early versions of the pill, first made widely available in the 1960s, did cause women to have more heart attacks. But contraceptives have since been re-formulated with less oestrogen and have been shown to be much safer.

Last year the British government caused a global panic by issuing advice about the newest, third-generation pills. They were found to double the risk of a deep vein thrombosis—a blood clot in the leg veins.

Sales of the pills, formulated with the hormone progesterone in an at-

tempt to make them even safer than earlier pills, plummeted—as did the stocks of companies that make them.

But Poulter says the risks are very tiny to begin with.

"I think the key thing is perspective," said Poulter. "These risks are still small. They are still less than you would see in pregnancy."

Last week Jan Rosing and colleagues at Maastricht University in the Netherlands said they had shown contraceptive pills interfered with the body's chemical mechanism for preventing clots.

Tests on blood plasma showed women who took birth control pills had a "significantly decreased sensitivity" to activated protein C (APC), a vital anticoagulant in the blood. This could explain the effect on thrombosis.

But overall researchers say the pill is very safe and the risks are lower than those associated with pregnancy.

Red Cross Manager Sets Vision

Drew Ross was recently named Marrow Donor Services Manager for American Red Cross Pacific Northwest Regional Services.

As manager, Ross directs and coordinates regional operations for the National Marrow Donor Program and American Red Cross local Donor Center.

Ross has more than 13 years experience. He previously served as director of Marrow Program in Richmond, Va.

Ross received extensive medical



Drew Ross

and recruiting training through the United States Army; Coordinator Training and Computer Program Training, through the National Marrow Donor Program in Minneapolis, Minn. and Business Administration in Richmond, Va.

"My vision is for our donor center to be the premier center in the western United States," Ross said. "My goal is that the donors and families we work with always know they are our number one priority and our reason for being here."

PGE's Ed Bunn.
On call,
on the move
24 hours a day,
seven days
a week.

As part of Portland General Electric's Eagle Crew, Ed is always ready to roll. Power outages, broken poles from car crashes, house fires and safety inspections, —they're all in a day's work for Ed.

Ed is there—first on the scene in North, Northwest and Northeast Portland.

Portland General Electric. The power to make a difference.

Advertise For Diversity

Advertise In The Portland Observer
Call: 503-288-0033