

Bow-wow for recovery

Although a few eyebrows were raised at the 1977 World Congress of Psychiatry when it was reported that dogs make excellent psychotherapists (SN: 10/8/77, p. 237), the medical value of owning a dog continues to escalate. People who have a dog (or another kind of pet) are more likely to survive a heart attack than are those who do not, according to a report at the recent annual meeting in Dallas, Tex., of the American Heart Association.

Because social isolation and lack of companionship have been shown to increase the likelihood of developing heart disease, Erika Friedman, a biologist at the University of Pennsylvania, collected ample social and psychological data on heart attack patients to see whether any particular factors were associated with a better health outcome. One of the factors that turned out to be statistically significant, regardless of how sick a patient was, was pet ownership. Out of 39 heart attack patients without pets, 11 died within one year of admission to the hospital. In contrast, all but three of 53 heart attack patients with pets were alive at the end of the year. Subtracting the dog owners from the group, on the assumption that the need to walk dogs might add a confusing variable to the results, made no difference. The owners of other pets — cats, birds, gerbils and even iguanas — were also more likely to be alive after one year.

Exercise prevents heart attacks

Marathon runners and Swedish skiers have been known to have more high density lipoproteins in their blood than does the general population, and such lipoproteins are known to protect against heart attacks (SN: 4/22/78, p. 244). Serious joggers have now been found to have lots of the protective lipoproteins as well, Baylor College of Medicine researchers reported at the meeting of the American Heart Association.

G. Harley Hartung and his colleagues compared 59 marathon runners and 85 serious joggers (jogging six miles or more a week) with 74 relatively sedentary men (perhaps exercising regularly, but not working up a sweat). All participants were healthy professional men or businessmen. The runners and joggers were found to have significantly higher levels of high density lipoproteins than the sedentary men had. What's more, high density lipoprotein levels were found to have no relationship to the subjects' diets.

Rotating shifts and health erosion

Rotating shift work takes a heavy toll on health, reports Donald L. Tasto, director of the Center for Research on Stress and Health at SRI International in Menlo Park, Calif.

Tasto and his co-workers studied the health and safety records and questionnaires from 1,200 nurses and 1,200 food processors who were divided about equally among four types of shift work — day, afternoon, night and rotating. Rotators were found to have more accidents, stomach problems, cramps, colds, chest pains, fatigue, menstrual problems, nervousness, wheezing and sex problems than workers on permanent shifts had.

Quickie test for male infertility

A 24-hour test for male infertility may have been found by Jane Rogers, a University of Hawaii biochemist. Rogers took sperm from 55 men known to be fertile and from 35 men suspected of being infertile and placed a sperm sample from each man in the presence of a batch of specially treated hamster eggs. Sperm from fertile donors fertilized from 15 up to 100 percent of an egg batch, but sperm from presumably infertile men fertilized less than 10 percent of the batch.

Grounding the fear of flying

The behavior modification technique of desensitization has been reported successful with at least part of the sweaty-palm, white-knuckle group of airplane travelers. Desensitization involves a step-by-step exposure of the person to progressively fearful situations connected with the phobia. In successful cases, the phobic situation gradually becomes associated with positive, relaxed feelings rather than with anxious or hysterical ones.

Researchers at the New Jersey Medical School in Newark have developed an audio-visual therapy program — using film clips and tapes — to help persons with a fear of flying. In their initial study, the investigators reported that 78 percent of 51 people who had previously refused to fly were able to fly after treatment. In addition, the subjects underwent significant attitude changes about flying and, in some cases, about other fears and phobias, as well.

But how long do the positive effects of such a therapy last? In a three-and-one-half- to five-and-one-half-year follow up of 43 of the original participants, the researchers report in the November AMERICAN JOURNAL OF PSYCHIATRY that a substantial number are still able to fly while others are not.

In the follow up, 26 subjects were classified as "behaviorally successful" — they had actually flown after the termination of treatment; seven were "attitudinally successful" — they were enthusiastic and willing to fly but for financial and other reasons could not; the rest were classified as unsuccessful. Twenty-three of the behaviorally successful are currently able to fly and are taking numerous flights, report psychiatrist Myron S. Denholtz and Ph.D.s Lawrence A. Hall and Edward Mann.

The researchers are preparing another film program to treat acrophobia, and suggest that eventually they might compile "a library of audio-visual treatment programs" for a variety of phobias.

Aging: Catecholamines lost

A University of Southern California scientist has found evidence in animal experiments that the aging process may involve a depletion of brain catecholamines. Caleb Finch reports that the catecholamine group of neurotransmitters was present in lower concentrations in brains of aging rats than in brains of younger ones.

One catecholamine, dopamine, is known to play a major role in Parkinson's disease, a condition that strikes primarily older persons. Finch speculates that aging may be "merely Parkinson's disease gone from bad to worse. Maybe if we all lived to be 150 we would develop Parkinson's disease."

A professor of biological sciences and gerontology, Finch says he disagrees with the theory that aging is due mainly to genetic impairment. He says the results of his study indicate that catecholamine deficiency, rather than gene damage, may be the most significant factor.

Sleep problems in the paralyzed

Persons paralyzed from the neck or waist down have consistent abnormalities in their sleep patterns, a Harvard University neurologist has found. In a paper presented at the recent Society for Neuroscience meeting, Lawrence W. Kneisley reports that paralyzed patients awaken from sleep about three times more often than do nonparalyzed subjects. The paralyzed men also appear to be deficient in stages of deep sleep, including dream-stage, and spend almost twice the time as others in stage 1, the lightest stage. Kneisley attributes the problems to lack of exercise and muscle activity, psychological depression and, in some cases, to the use of spasm-controlling drugs.