Heart-attack victims show fatal depression

In the first six months after surviving a heart attack, people who suffer from severe, or major, depression experience three to four times the death rate of nondepressed individuals, according to a prospective study in the Oct. 20 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.

"Although the precise mechanisms remain unclear, having major depression seems to be a strong short-term risk factor for dying after a heart attack," asserts Nancy Frasure-Smith, a psychologist at the Montreal (Quebec) Heart Institute. "We don't know if long-term mortality risks also include depression."

Another new study has found that the women most likely to die in the eight to 10 years following their first heart attack display a near absence of hostility and lack any urgency to finish tasks, two possible indicators of underlying depression (SN: 10/16/93, p.244). However, suppression of a spectrum of negative emotions, including resentment and anger, might also produce the psychological symptoms noted in these women.

Between August 1991 and July 1992, Frasure-Smith's group recruited 222 people discharged from a hospital after treatment for a heart attack. Participants ranged in age from 24 to 88; men made up three-quarters of the sample.

Each volunteer granted a psychiatric interview within 15 days of leaving the hospital. Thirty-five were diagnosed with major depression, a condition characterized by loss of interest in formerly enjoyable activities, feelings of helplessness and hopelessness, and overwhelming sadness.

Six months after discharge from the hospital, six depressed people, or 17 percent of the depressed group, had died; six nondepressed adults, or 3 percent of the nondepressed group, also died in that time period.

Depressed volunteers did not have more severe heart disease or more prior heart attacks than their nondepressed counterparts, the researchers assert.

Depression may wreak its lethal effects through one or both of two possible channels, they maintain. Depressed individuals may be less willing to take medications, exercise, stop cigarette smoking, and eat healthful meals. Evidence also suggests that depression may undermine the heart's ability to pump normally and, through its chemical effects, may promote blood clots and thickening of artery walls (SN: 7/31/93, p.79).

However depression does its damage, identification and treatment of the disorder in heart-disease patients now take center stage, Frasure-Smith says.

"We don't know for sure how to treat depression in cardiac patients," she remarks. "Studies of psychotherapy and drug treatments need to be done."

Depression occurred most often among heart-attack survivors who reported having no close friends, suggesting that treatment may need to focus on shoring up social support, the Montreal psychologist says. Researchers also need to consider possible protective factors that aided survival among 83 percent of depressed patients in the study, she holds.

The findings may signal a move away from the long-standing emphasis on Type A behavior and its components, such as hostility and cynicism, as fatal contributors to heart disease, Frasure-Smith adds.

Redford B. Williams, a psychiatrist at Duke University Medical Center in Durham, N.C., agrees that depression can prove deadly after symptoms of heart disease emerge. But other studies indicate that hostility and Type A behavior help foster the initial development of heart disease, Williams argues.

In a commentary accompanying the new study, Williams and Margaret A. Chesney, a psychologist at the University of California, San Francisco, call for research into treating depressed cardiac patients with support groups and new antidepressant drugs that show no harmful effects on the heart. *—B. Bower*

Clinton unveils new 'greenhouse' policy

President Clinton this week released his long-awaited Climate Change Action Plan. The package of mostly voluntary initiatives aims to avert the threat of global warming through "American ingenuity," Clinton said, "not more bureaucracy or regulation." The plan involves roughly 50 measures for reducing an atmospheric buildup of "greenhouse" gases, principally carbon dioxide.

By the year 2000, the plan envisions reducing annual U.S. emissions of greenhouse gases by an amount equivalent to 109 million metric tons of carbon dioxide (CO_2). The key words here are *equivalent to,* since not all the measures would reduce CO_2 emissions. Fast-growing trees planted as part of new reforestation programs, for example, are slated to sop up 10 million tons of CO_2 annually. Other programs would cut releases of different greenhouse gases.

If the plan achieves its objective, it will return net U.S. emissions of greenhouse gases to 1990 levels, thereby satisfying a key near-term objective of the Convention on Climate Change. This proposed treaty, endorsed by the United States during last year's Earth Summit in Brazil (SN: 6/20/92, p.407), will go into effect once 50 nations endorse it—probably by the end of this year.

At a press briefing, Energy Secretary Hazel R. O'Leary unveiled two major new government-industry partnerships that will contribute to the projected greenhouse-gas savings. As part of a voluntary "Motor Challenge," 27 companies, eight industrial associations, and seven organizations representing state energy offices have pledged to collaborate in developing new ways to reduce the energy consumed by electric motors and the products they drive. These efforts are expected to account for 8 percent of the greenhouse-gas reductions anticipated under the new plan, O'Leary said.

Under "Climate Challenge," corporate members — electric-power companies responsible for 60 percent of the CO_2 emitted by U.S. utilities — have agreed to initiate new, customized CO_2-reduction programs. For joining the partnership, O'Leary said, "we will give these companies the flexibility to adopt the most cost-effective reductions available to them."

Clinton's new plan also calls for:

- new energy-efficiency standards for 11 household appliances, including televisions and air conditioners;
- a new labeling program to inform buyers about the rolling resistance — or energy performance — associated with different vehicle tires;
- expansion of the EPA's small but successful Green Lights program, which assists U.S. firms in switching to more energy-efficient lighting systems;
- tighter regulatory controls on the release of methane — a potent greenhouse gas — from landfills; and
- new provisions that encourage financing of energy conservation measures through home mortgages.

Environmental groups generally have supported the thrust of the Clinton plan. Many expressed disappointment, however, that the administration hadn't given the plan more teeth by making most of its programs mandatory. Moreover, notes Alden Meyer with the Union of Concerned Scientists in Washington, D.C., the plan does not commit the United States "to maintaining 1990 emission levels beyond 2000." As such, he worries, "It could be a one-shot return and then business as usual."

Industry groups, however, have applauded the administration's confidence that they will carry out the plan's mostly voluntary measures. Indeed, "business-government partnerships and initiatives, we think, are the right approach to the climate issue," maintains John Shlaes, executive director of the Washington, D.C.-based Global Climate Coalition, a mix of trade associations and private companies. *—J. Raloff*