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News

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*****Medical researcher warns
the elderly about chlor-
promazine and summer heat.

DALLAS--Tranquilizers, summer heat and the elderly do not mix well. Dr. James Lipton, associate professor of physiology and neurology at The University of Texas Health Science Center at Dallas, cautions older people to avoid extreme heat, especially if they are taking the tranquilizer chlorpromazine.

"Chlorpromazine is a tranquilizer commonly prescribed for the elderly if they are 'just not feeling well' or during a time of bereavement. It's one of the safest and most effective tranquilizers. But they are often not warned that it may interfere with their response to temperature. They should be warned of this," says Lipton. Chlorpromazine is sold as Chlorpromazine HCl, Chlorpromazine Hydrochloride and Thorazine.

The human body responds to heat in two ways: the blood rushes from the body "core" to the surface and sweating begins. These are involuntary physiological responses. There is also the behavioral response, such as taking clothes off or turning on the air conditioner.

Lipton has found in his research that the physiological responses slow down with age. In addition, the sensation of feeling hot (or cold) is less acute so the elderly person is slower to respond by taking clothes off, moving to the shade or turning on a fan. Compounding the problem for some, chlorpromazine and certain other less commonly used drugs, such as morphine, interfere with the body's own "thermostat," slowing the sweating response and interfering with the sensation of being too hot. Since older people take more medications than any other population group, they especially need to be alert for side-effects.

Sixty to 70 percent of all heatstroke victims are over age 60, and 80 percent of heatstroke deaths occur in people over 60. Their core temperatures (temperatures measured rectally) go up higher than those of young people, and their sweating responses begin later.

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first add heat and the elderly

There are no statistics on chlorpromazine involvement in heatstroke, but individual cases are known. And Lipton's work with "elderly" squirrel monkeys and rabbits shows there are changes in the brain with age that makes them more sensitive to drugs taken by elderly people. They are also less sensitive to pyrogens (substances in the body that cause fever).

Lipton warns that older people should avoid both extreme heat and extreme cold and they "have to do it intellectually because they can't feel the temperature." They should follow the usual rules for dealing with summer heat: drink more water than usual, avoid alcoholic drinks and avoid over-exertion. And they should do these things whether or not they feel hot. They may need reminders by family members.

The neurophysiologist is beginning the third year of a study on the effects of aging on central temperature controls for the National Institute on Aging. He has studied temperature regulation in animals and humans for the last 12 years.

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