

Effects of loneliness mimic aging process

May 1 2012, By Karene Booker

The social pain of loneliness produces changes in the body that mimic the aging process and increase the risk of heart disease, reports a recent Cornell study published in *Psychology and Aging* (27:1). Changes in cardiovascular functioning are part of normal aging, but loneliness appears to accelerate the process, say the researchers.

To investigate the effects of age and <u>loneliness</u> on <u>cardiovascular health</u>, the researchers measured cardiovascular reactivity and recovery in 91 young adults (18-30 years old) and 91 older adults (65-80 years old) who presented a speech and did mental arithmetic in a lab setting. Individual differences in perceived isolation (loneliness) were assessed before the tasks, and systolic and diastolic blood pressure measurements were taken before, during and after the tasks.

"The most striking thing we found was that the cardiovascular response of the lonely young adults to the social stressor task looked more like that of the nonlonely older adults," said lead author Anthony Ong, associate professor of human development in Cornell's College of <u>Human Ecology</u> and co-author of the study with Jeremy Rothstein '10, now at the Yale University School of Medicine Child Study Center, and Bert Uchino of the University of Utah.

As expected, they found that older adults had higher resting blood pressure, greater cardiovascular stress reactivity and longer cardiovascular recovery times compared with younger adults. Loneliness increased each of these measures but had even greater negative effects in older adults, putting them at the greatest risk. The recovery time of the



lonely older adults, on average, was so delayed, they did not return to baseline levels during the two-hour-long follow-up period.

While prior studies had found a link between loneliness and stressinduced changes in cardiovascular responses, this is the first to look at young and <u>older adults</u> in the same study and is among a select few to analyze cardiovascular recovery rate.

"I think it's helpful to distinguish the emotional pangs that are associated with acute loneliness from the more chronic feelings of distress that accompany perceived deficits in the quality of our social relationships," Ong said.

"Viewed from this perspective, acute loneliness may be seen as adaptive, signaling us to repair social connections. However, it is the persistence of loneliness over time that may set the stage for health problems in later life," Ong said. "I think one of the most important and life-affirming messages of this research is the reminder that we all desire and need meaningful social connections."

Provided by Cornell University

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