

Antihypertensive drugs may protect against Alzheimer's disease

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Researchers at Mount Sinai School of Medicine have found that the drug carvedilol, currently prescribed for the treatment of hypertension, may lessen the degenerative impact of Alzheimer's disease and promote healthy memory functions. The new findings are published in two studies in the current issues of *Neurobiology of Aging* and the *Journal of Alzheimer's Disease*.

"These studies are certainly very exciting, and suggest for the first time that certain antihypertensive drugs already available to the public may independently influence [memory](#) functions while reducing degenerative pathological features of the [Alzheimer's disease](#) brain," said study author Giulio Maria Pasinetti, MD, PhD, Saunders Family Professor of Neurology and Director of the Center of Excellence for Novel Approaches to Neurotherapeutics at Mount Sinai School of Medicine.

Dr. Pasinetti's team found for the first time that carvedilol, a blood pressure lowering agent, is capable of exerting activities that significantly reduce Alzheimer's disease-type brain and memory degeneration. This benefit was achieved without blood pressure lowering activity in mice genetically modified to develop Alzheimer's disease brain degeneration and memory impairment. These data were published in *Neurobiology of Aging*.

In a second study published in the *Journal of Alzheimer's Disease*, the research team led by Dr. Pasinetti assessed how mice learned new tasks and information and recall of past information chemically stored in the

brain. They found that carvedilol treatment was capable of promoting memory function, based on assessments of learning new tasks and information and recall of past information, which is already chemically stored in the [brain](#).

In the study, one group of mice received carvedilol treatment and the other group did not. The scientists conducted behavioral and learning tests with each group of mice, and determined that it took the mice in the carvedilol significantly less time to remember tasks than the other group.

"Ongoing clinical research is in progress to test the benefits of carvedilol, which may prove to be an effective agent in the treatment of symptoms of Alzheimer's disease," said Dr. Pasinetti. "We look forward to further studying this drug in the human population."

Provided by The Mount Sinai Hospital

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