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EMBARGOED FOR RELEASE UNTIL 5:10 PM ON FRIDAY, NOVEMBER 11

Contact: Shari Leventhal: 202-416-0658, sleventhal@asn-online.org (before Nov. 8)
November 8: ASN Management Office, Pennsylvania Convention Center, Room 304, (215) 418-2061
Wednesday, Nov. 9–Sunday, Nov. 13: ASN Press Room, Pennsylvania Convention Center, Room 303B, (215) 418-2058 (Press Room), 202-236-8142 (after hours)

HIGHER NIGHTTIME BLOOD PRESSURE LINKED TO LOWER COGNITIVE FUNCTION

Philadelphia, PA (November 3, 2005) — Higher levels of blood pressure at night—especially loss of the normal nighttime "dip" in blood pressure—are linked to lower scores on tests of cognitive functioning, according to a paper presented at the American Society of Nephrology's 38th Annual Meeting and Scientific Exposition in Philadelphia, Pennsylvania.

The results add to previous studies suggesting that information from 24-hour blood pressure monitoring is a better indicator of the risks of organ damage caused by hypertension than blood pressure readings made in the doctor's office.

Led by Dr. Gary L. Schwartz of Mayo Clinic College of Medicine in Rochester, Minnesota, the researchers compared 24-hour blood pressure recordings with the results of standard cognitive tests in 389 patients most of whom had hypertension.

The patients wore an ambulatory blood pressure monitor, which measures and records blood pressure over a 24-hour period while patients carry out their usual daily activities, including sleep. Past research has shown that one-time measurements of blood pressure in the doctor's office don't fully capture the health risks associated with disturbances of blood pressure.

Scores on the cognitive tests were significantly lower for patients with higher nighttime blood pressure levels. This included tests of specific cognitive functions such as attention, processing speed, and others.

Normally, blood pressure drops by about ten to twenty percent when a person lies down at night, compared with daytime levels. In the new study, patients who didn't have this normal nighttime "dip" in blood pressure also scored lower on the cognitive tests.

Cognitive scores were unrelated to the patient's daytime blood pressure levels on 24-hour monitoring, or to their blood pressure levels measured in the doctor's office.

Through the sustained effects of high blood pressure over time, hypertension can damage virtually every organ in the body—including the brain. High blood pressure has been linked to reduced cognitive functioning, even in young adults. The average age of the patients in the new study was 63 years.

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Previous studies have shown a higher risk of damaging complications from hypertension in patients with higher blood pressure levels—including "non-dippers," who lack the normal nighttime decrease. The new results show that higher nighttime blood pressure is also related to reductions in specific areas of cognitive functioning. Dr. Schwartz said: "These studies suggest that we may have to pay more attention to blood pressure levels and patterns throughout the day and night in order to protect our patients from the harmful effects of high blood pressure."

The study abstract, "Nighttime Blood Pressure Level and Diurnal Rhythm Are Associated with Cognitive Dysfunction," (F-FC095) will be presented during a Free Communications session on the topic of "Novel Developments in Clinical Hypertension" on Friday, November 11 at 4:10 pm in Room 109 of the Pennsylvania Convention Center.

The ASN is a not-for-profit organization of 9,000 physicians and scientists dedicated to the study of nephrology and committed to providing a forum for the promulgation of information regarding the latest research and clinical findings on kidney diseases. ASN's Renal Week 2005, the largest nephrology meeting of its kind, will provide a forum for more than 12,000 nephrologists to discuss the latest findings in renal research and engage in educational sessions relating advances in the care of patients with kidney and related disorders from November 8-13 at the Pennsylvania Convention Center in Philadelphia, PA.

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