

New blood test detects potentially deadly calcium deposits

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A new test could help identify and treat individuals at risk of developing potentially deadly calcium deposits in their tissues and blood vessels, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology* (JASN). Heart disease is the number one killer of patients with chronic kidney disease (CKD), and vascular calcification is thought to play a major role.

Patients with CKD often have abnormally high blood calcium levels due to their compromised kidney function and the effects of commonly used medications. An accumulation of [excess calcium](#) can cause potentially deadly calcifications in tissues and blood vessels; however, physicians currently have no tools to determine an individual's calcification risk.

Now Andreas Pasch, MD (University Hospital and University of Bern, Inselspital, in Switzerland) and his colleagues have developed the first test capable of measuring the propensity for calcification to occur in blood. Using their new assay, the investigators found that both the blood of mice deficient in a protein that inhibits calcification and the blood of CKD patients on dialysis had a reduced ability to inhibit calcification. Blood from healthy volunteers did not.

"Our test may identify patients at risk for the development of calcification, may become an important tool for identifying and testing calcification inhibitors, and may provide the basis for treatment monitoring in patients who receive such inhibitors," said Dr. Pasch.

More information: The article, entitled "Nanoparticle-based Test Measures Overall Propensity for Calcification in Serum," will appear online on September 6, 2012, [doi: 10.1681/ASN.2012030240](https://doi.org/10.1681/ASN.2012030240)

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