

# Hormone and bone tests may be indicative of dialysis patients' heart health

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Bone loss may be a sign of poor heart health in patients on dialysis, according to a study appearing in an upcoming issue of the *Journal of the American Society of Nephrology (JASN)*. Monitoring bone loss in dialysis patients may therefore provide an early alert to physicians concerning cardiovascular problems.

Most patients with [chronic kidney disease](#) who are on dialysis have a buildup of calcium in the arteries around the heart. When such coronary artery calcification worsens, it can lead to heart disease, which is the leading cause of death in [dialysis patients](#).

To identify patients at high risk for progression of [coronary artery calcification](#), Hartmut Malluche, MD, FACP (University of Kentucky) and his colleagues conducted tests to analyze abnormalities in blood, bone, and heart vessels in 213 patients on dialysis over a 1-year period. "We discovered that high parathyroid hormone and the consequential bone loss are major risk factors for progression of vascular calcifications," said Dr. Malluche. "These two factors were heretofore not appreciated and were independent from traditional known risk factors." (High parathyroid hormone levels signal the bone to release calcium into the blood, which can lead to the development of thin bones.)

Dr. Malluche noted that there may be important links between the calcification levels in bones and those in blood vessels. "Studies need to be done to find out whether prevention of [bone loss](#) will reduce

progression of vascular calcifications," he said.

**More information:** The article, entitled "High Parathyroid Hormone Level and Osteoporosis Predict Progression of Coronary Artery Calcification in Patients on Dialysis," will appear online at [jasn.asnjournals.org/](http://jasn.asnjournals.org/) on April 2, 2015.

Provided by American Society of Nephrology

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