

Heart failure linked to thinner bones and fractures

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Heart failure is associated with a 30 percent increase in major fractures and also identifies a high-risk population that may benefit from increased screening and treatment for osteoporosis, according to a recent study accepted for publication in The Endocrine Society's *Journal of Clinical Endocrinology & Metabolism (JCEM)*.

Osteoporosis and heart failure are common, chronic and costly conditions that share common etiologic factors like older age, post-menopausal status and diabetes. Previous studies have suggested that heart failure may predispose a patient to fractures not only because it increases incidence of falling, but because both heart failure itself and its medical treatments can lead to loss of bone mass.

"Our study demonstrates for the first time that heart failure and thinning of bones go hand in hand," said Sumit Majumdar, MD, of the University of Alberta in Edmonton, Canada, and lead author of the study.

"Understanding the mechanism between heart failure and [osteoporosis](#) might lead to new treatments for both conditions."

In this study, researchers conducted a population cohort study consisting of 45,509 adults undergoing bone mineral density testing for the first time and followed them for up to ten years. Of the 45,509 adults included in the study, 1,841 had recent-onset heart failure. After adjusting for traditional osteoporosis risk factors, researchers found that heart failure was associated with a 30 percent increase in major fractures.

"Part of screening for osteoporosis should involve looking at chest x-rays of patients with heart failure," said Majumdar. "[Heart failure](#) patients get a lot of x-rays and they often incidentally show many [fractures](#) of the spine that would automatically provide an indication of severe osteoporosis and need for treatment."

More information: The article, "Heart Failure is a Clinically and Densitometrically Independent Risk Factor for Osteoporotic Fractures," appears in the April 2012 issue of *JCEM*.

Provided by The Endocrine Society

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