

# Study explains why popular antacids may increase chance of bone fractures

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Newly published research from the Forsyth Institute details a discovery explaining why the 100 million Americans estimated to be taking prescription and over-the-counter antacid and heartburn medications may be at an increased risk of bone fractures.

Physicians. Fractures at the hip, wrist, arm, ribs and even vertebrae - especially in individuals aged 50 and older - can permanently impair quality of life and result in an expensive drain on the American healthcare system.

The new report from Forsyth, published in the March issue of the prestigious medical research journal *PLOS Genetics*, explains that [stomach acid](#) in the gastrointestinal tract plays an important role in helping the intestines absorb and transfer calcium to the skeletal system. While the introduction of [proton pump](#) inhibitor-based antacids reduces the level of acidity in the stomach to bring relief to patients, the reduction also interrupts and even stops the gut from absorbing much needed calcium.

Provided by Forsyth Institute

The connection between [proton pump inhibitors](#) and [bone fractures](#) has been well established, with the Food and Drug Administration in 2010 requiring a warning label placed on all product packaging. Other research has indicated these medications may block the absorption of important nutrients, but until this study it was not known how or why this was happening in the body.

"The regulation of bone mass by the [gastrointestinal tract](#) represents a remarkable example of an unexpected and important relationship between these two systems that is only now becoming fully appreciated," said Dr. Ricardo Battaglini of the Forsyth Institute. "It could help us better understand and find new ways to treat common clinical conditions that currently require medications which have been linked to weakened bones, such as popular antacids."

Over-the-counter and prescription antacids are used by 100 million Americans to treat heartburn and related conditions. It is the third highest selling drug category with \$14 billion in annual sales according to the American Academy of Family

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