

# Science Times

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## Low Buzz May Give Mice Better Bones and Less Fat

By GINA KOLATA

Clinton T. Rubin knows full well that his recent results are surprising — that no one has been more taken aback than he. And he cautions that it is far too soon to leap to conclusions about humans. But still, he says, what if ... ?

And no wonder, other scientists say. Dr. Rubin, director of the Center for Biotechnology at the State University of New York at Stony Brook, is reporting that in mice, a simple treatment that does not involve drugs appears to be directing cells to turn into bone instead of fat.

All he does is put mice on a platform that buzzes at such a low frequency that some people cannot even feel it. The mice stand there for 15 minutes a day, five days a week. Afterward, they have 27 percent less fat than mice that did not stand on the platform — and correspondingly more bone.

"I was the biggest skeptic in the world," Dr. Rubin said. "And I sit here and say, 'This can't possibly be happening.' I feel like the credibility of my scientific career is sitting on a razor's edge between 'Wow, this is really cool,' and 'These people are nuts.'"



**FAT** Abdominal scans of two mice show subcutaneous fat (gray) and visceral fat (red). The vibrated mouse, right, has less of both.

The responses to his work bear out that feeling. While some scientists are enthusiastic, others are skeptical.

The mice may be less fat after standing on the platform, these researchers say, but they are not convinced of the explanation — that fat precursor cells are turning into bone.

Even so, the National Institutes of Health is sufficiently intrigued to investigate the effect in a large clinical trial in elderly people, said Joan A. McGowan, a division director at the National Institute of Arthritis and Musculoskeletal and Skin Diseases.

Dr. McGowan notes that Dr. Rubin is a respected scientist and that her

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