

How Common Are High Cortisol Levels in Apparently Healthy People with Osteoporosis?

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The summary below is from the full report titled “Subclinical Hypercortisolism among Outpatients Referred for Osteoporosis.” It is in the 16 October 2007 issue of *Annals of Internal Medicine* (volume 147, pages 541-548). The authors are I. Chiodini, M.L. Mascia, S. Muscarella, C. Battista, S. Minisola, M. Arosio, S.A. Santini, G. Guglielmi, V. Carnevale, and A. Scillitani.

What is the problem and what is known about it so far?

Osteoporosis is a condition in which bones become less dense and fractures occur more easily. Osteoporosis is most often caused by gradual bone thinning that occurs with age. However, other diseases may cause osteoporosis. Cortisol is a hormone that helps the body withstand stress. Diseases that increase cortisol levels in the blood typically cause many symptoms and signs, including osteoporosis. Researchers have found that some apparently healthy people have high blood cortisol levels. Osteoporosis could be a sign of high cortisol levels in these people.

Why did the researchers do this particular study?

To see how often apparently healthy people with osteoporosis have high cortisol levels.

Who was studied?

219 people referred to 2 medical centers for osteoporosis testing. Most participants were women.

How was the study done?

The researchers tested the participants for osteoporosis. They then tested their blood to see who had high blood cortisol levels. They compared participants who had osteoporosis with those who did not to see whether the participants with osteoporosis were more likely to have high cortisol levels.

What did the researchers find?

Seven apparently healthy people with osteoporosis had high cortisol levels. None of the people without osteoporosis had high levels. All 7 people with high levels had tumors that increased the levels. Among people with osteoporosis and fractures, the frequency of high cortisol levels was about 1 in 10.

What were the limitations of the study?

The researchers could not fully explain whether high cortisol levels caused the osteoporosis.

What are the implications of the study?

High blood cortisol levels in apparently healthy people with osteoporosis may be more common than is usually recognized. More research is needed to see whether high cortisol levels are a cause of osteoporosis in a significant number of apparently healthy people with the condition.

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