

Calcium pills for strong bones may double women's risk of heart attack

► Trial suggests risks as well as health benefits

► Report's critics say more research needed

Nigel Hawkes Health Editor

Calcium pills taken by older women to strengthen their bones could be doubling their risk of a heart attack.

The conclusion, reached after a trial involving nearly 1,500 women in New Zealand, is surprising: previous evidence had suggested that calcium gave protection against heart disease, as well as making stronger bones and reducing the risk of fractures.

Almost 600,000 prescriptions for calcium supplements are written every year in Britain, and many more women buy them over the counter. There is good evidence that calcium pills slow the loss of bone density and reduce the risk of fractures. However, the new trial suggests that against that

must be set a greater risk of heart disease.

A team at the University of Auckland identified 1,471 women with an average age of 74. One group was allocated calcium supplements, and the other a placebo. In five years, there were 45 heart attacks in the calcium group, and 19 in the placebo group. Some women in both groups had more than one heart attack, so the actual numbers affected were 31 women in the calcium group, and 14 in the placebo group.

Therefore the risk was more than doubled. But the size of the study was such that this result reaches statistical significance only narrowly. The risk of stroke was not increased significantly.

The authors conclude in *British Medical Journal* online that the study "does not unequivocally show an adverse cardiovascular effect of calcium but suggests that this matter needs to be considered carefully before calcium supplementation can be broadly advocated". The team also checked hospital records and death certificates to iden-

tify any heart attacks or strokes they had missed. When these were added they weakened the effect — although heart attacks were still more common in the calcium group (36 versus 22), a 49 per cent increase in risk. But this result did not reach statistical significance.

The authors conclude: "Healthy older women randomised to calcium sup-

People taking calcium should not stop without medical advice'

plementation showed increased rates of myocardial infarction [heart attack]. This could outweigh any benefits on bone from calcium supplements."

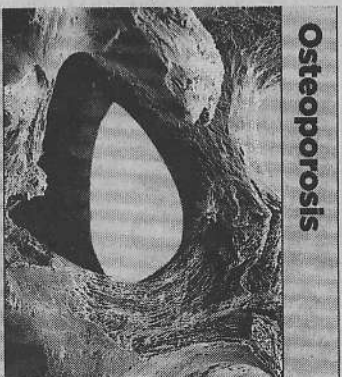
Judy O'Sullivan, of the British Heart Foundation, said: "More rigorous research is needed... as previous studies have shown calcium supplements reduce the risk of heart attacks by improving the levels of protective cholesterol, HDL. Anyone who has been advised by their doctor to take calcium

supplements to protect their bones should not stop doing so in light of this study alone without medical advice."

Pamela Mason, of the Health Supplements Information Service, which represents manufacturers, said that the study was small for what it was trying to measure, and had a high dropout rate: "Previous studies have found benefits of calcium supplementation in protecting against cardiovascular disease. It is too early to conclude that calcium supplementation has adverse effects on cardiovascular health. This is a case of more research needed."

If the extra heart risk is confirmed by further studies, women will have to balance the benefits of stronger bones against that of a heart attack. Heart problems are quite common in this age group, so added risk is meaningful.

A recent study in *The Lancet* gathered all the evidence on bone density and fracture risk, and found that calcium, or calcium plus vitamin D, reduced fracture risk by 12 per cent in people aged 50 or over, and reduced bone loss in the hip by 46 per cent.



Osteoporosis

● Three million people in Britain have osteoporosis. It affects mainly women over the age of menopause, though men and younger women may also suffer

● Every year there are more than 230,000 fractures as a result of it

● The most serious are a broken hip, fractured neck or femur. About 10 per cent of those admitted to hospital with such a fracture die within 30 days of admission

● Osteoporosis can be treated with calcium and/or vitamin D supplements, a range of hormone treatments or drugs such as bisphosphonates

● Genetics, diet and exercise can all influence the risk of developing it