



SECOND JOINT MEETING OF THE

# European Calcified Tissue Society AND THE International Bone and Mineral Society

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**25-29 June:** ECTS-IBMS Media Room, Secretariat 1  
Palexpo Congress Centre, Geneva, Switzerland

## LITHIUM SHOWS PROMISE AS A POTENTIAL OSTEOPOROSIS TREATMENT

Geneva, Switzerland (27 June 2005)—Lithium, a drug commonly used to treat bipolar disorder (manic-depression), has been shown to inhibit bone resorption, which is bone loss due to the action of osteoclasts (cells that break down bone), potentially pointing to a treatment for osteoporosis. A recent case-control study led by Peter Vestergaard, M.D., Ph.D., indicates that low to moderate doses of lithium also may reduce the risk of fracture. He presented his findings today at the [Second Joint Meeting of the European Calcified Tissue Society and the International Bone and Mineral Society](#).

Earlier studies only focused on lithium's effect on bone mineral density and indicated that, upon use of more than one defined daily dose (DDD), or more than 100 percent of the recommended dose per day, bone mineral density decreased. However, these studies also showed that patients taking dosages at or below 100 percent DDD had no decrease in bone mineral density.

Dr. Vestergaard's study examined fracture risk of individuals who took less than the recommended dose per day. His team studied 124,655 patients who had sustained fracture during the year 2000. For each case, three controls (n=373,965) matched on age and gender randomly were selected from the background population. Adjustments were made for use of other psychotropic drugs, such as neuroleptics, antidepressants and anxiolytics/sedatives. In addition, adjustments were made for psychiatric disease and other confounders such as alcoholism and previous fracture.

Results indicated a 26-percent decreased risk of any fracture with low daily doses of lithium (25 percent to 29 percent of DDD). For those taking moderate daily doses (more than 60 percent of DDD), significant reduction in fracture risk was seen or 33 percent for any fracture, 43 percent for Colles' fracture, and 68 percent for spine fracture.

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“We concluded that low to moderate doses of lithium may be beneficial, while doses of more than 100 percent DDD may be detrimental,” says Dr. Vestergaard. “Lithium may, perhaps, strengthen the skeleton and become a viable treatment to help prevent fractures,” he adds.

For more information about Dr. Vestergaard’s study, please visit [www.ects-ibms-2005.org](http://www.ects-ibms-2005.org).

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[The European Calcified Tissue Society \(ECTS\)](#) is the major organization in Europe for researchers and clinicians working in the field of calcified tissues. [The International Bone and Mineral Society \(IBMS\)](#) is the international society working to promote the generation and dissemination of knowledge about bone and mineral metabolism.

The [ECTS-IBMS Second Joint Meeting](#), held in Geneva, Switzerland, 25-29 June 2005, brings together some 3,000 researchers, clinicians, physicians and other allied health professionals, will offer participants the opportunity to enhance their knowledge of bone biology, bone diseases and their correlation to mineral metabolism.

State-of-the-art research on bone and mineralized tissue, along with diagnostic and therapeutic aspects of metabolic bone diseases will be presented through symposia, workshops, training courses, lectures, posters and Meet the Professor sessions. Topics covered at the meeting include: osteoporosis assessment, treatment, genetics and physiology; clinical disorders other than osteoporosis; stem cells and bone cells; nutrition and bone; metabolic bone disease; bone imaging and assessment; and bone development.

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