

# Cancer treatment may result in bone loss

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Montreal, November 13, 2008 – A new cross-Canada study has found that breast and prostate cancer treatment can foster bone loss. In the online edition of the *Journal of Clinical Oncology*, the scientists explain how loss of bone mass might affect 46,000 people diagnosed with breast and prostate cancer each year\* and place them at increased risk for osteoporosis and fractures.

"Our study also looked at possible medications that can reverse or halt bone loss," says Dr. Fred Saad, lead author and director of urologic oncology at the Université de Montréal's Faculty of Medicine and the Centre Hospitalier de l'Université de Montréal (CHUM), who completed the exhaustive study with colleagues from McMaster University, the Université Laval, the University of Toronto and the University of British Columbia.

"Bone is a dynamic tissue which undergoes a cyclic process of breaking down and rebuilding," adds Dr. Saad. "Medications called bisphosphonates help with the rebuilding process and have been successfully used to combat osteoporosis, which is good news for cancer patients."

## Evaluating the studies

Dr. Saad and colleagues evaluated data from more than 3,500 breast and prostate cancer studies. They concluded that breast cancer patients treated with aromatase inhibitors were more likely to have bone loss and fractures compared to patients who didn't receive the therapy. Similarly, men who received androgen deprivation therapy to treat their prostate cancer had an increased risk of bone disorders. Although the numbers vary from one study to the next (from five to 45 percent), an elevated risk is consistently observed.

"Awareness of the incidence of cancer-associated bone loss raises issues for clinicians who should identify those patients who are most at risk for fractures and prescribe treatment strategies," says Dr. Saad. "This information is not only a concern

for the specialists, but also for the general practitioners who frequently encounter these patients."

## Bisphosphonate treatment reduces bone loss

Dr. Saad's group also evaluated data that included bisphosphonate treatment for cancer patients receiving chemotherapy. Prostate cancer patients who received bisphosphonate treatment and androgen deprivation therapy did show an increase in bone loss. In the same vane, there was a protective effect on bone loss for breast cancer patients who were treated with bisphosphonates.

"It is clear that the use of bisphosphonates attenuates bone loss," concludes Dr. Saad. "However, the optimal dosing and long-term impact is unclear and needs to be determined. Other measures to combat the bone loss, such as exercise, vitamin D intake, avoidance of cigarettes, may also be beneficial

Source: University of Montreal

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