

# DSEN Abstract

## Selective serotonin reuptake inhibitors (SSRI) and risks of fracture

### Summary

In our analysis using data from a population-based cohort, SSRI/SNRI use was associated with increased risk of fragility fracture. After controlling for multiple risk factors, the adjusted hazard ratio for current SSRI/SNRI use was elevated (HR, 1.68; 95 % CI, 1.32–2.14).

### Key messages

Our results suggest an independent association between SSRI/SNRI use and subsequent fragility fracture. Given the high prevalence of antidepressants use, and the impact of fractures on the health, our findings may have a significant clinical impact.

### What is the issue?

- Some antidepressants, such as selective serotonin reuptake inhibitors (SSRIs) and serotonin and noradrenaline reuptake inhibitors (SNRIs) may increase the risk of fractures.
- The rationale is that these drugs can increase the risk of falls and decrease bone mineral density

### Objective

- To evaluate whether antidepressant medication use is associated with fracture risk.

### How was the study conducted?

- We used 10-year data from the Canadian Multicentre Osteoporosis Study (CaMos).
- Occurrence of fractures was assessed annually and drug exposure at 3 time points during the study period.
- Time to event analysis was used to assess the association between SSRI/SNRI use and time to first fragility fracture.

### What did the study find?

- Among 6,645 selected participants, 978 experienced at least one fragility fracture.
- Current use of either SSRI/SNRI was associated with an increased risk of fragility fracture (HR, 1.68; 95 % CI, 1.32–2.14)
- The results also suggest a dose-effect relationship: participants taking higher doses of SSRI/SNRI at baseline had a significantly higher risk of fracture

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