

Fracture Liaison Service (FLS)

SCNergy, Winter 2023

Did you know that fractures from osteoporosis are more common than heart attacks, stroke, and breast cancer combined? These osteoporosis related fractures are called 'fragility fractures' and can cause pain, disability, loss of independence and even death. Unfortunately, people do not experience symptoms of osteoporosis until they break/fracture a bone.

Often referred to as a "silent thief", osteoporosis affects one in three women and one in five men.

In Alberta, over 20,000 potential osteoporosis-related fragility fractures are identified each year.

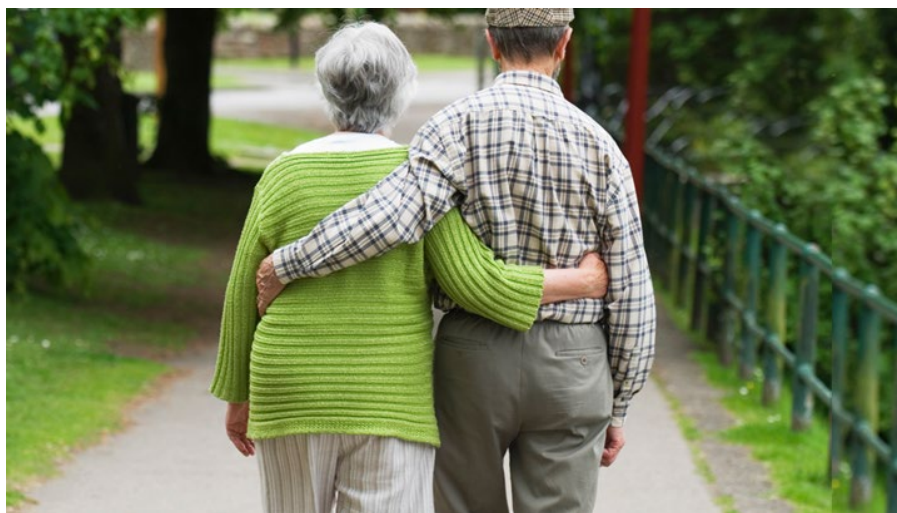
Last year, 3,286 of these were hip fractures.

Unfortunately, a large 'care gap' exists for post-fracture care, as less than 20% of patients who have suffered a fracture as a result of early-stage osteoporosis are made

aware that they have this treatable disease and offered treatment options. There is reason for optimism however, as evidence indicates that when people are treated for osteoporosis, they can reduce their risk of another fracture by up to 60%.

In response to closing this 'care gap' the [Bone & Joint Health Strategic Clinical Network \(SCN\)](#), in partnership with the [Alberta Bone and Joint Health Institute](#), led the development of Alberta's Fracture Liaison Service (FLS) program for secondary fracture prevention.

The first FLS program began at the Misericordia Community Hospital in 2015, and quickly spread geographically to all five zones in Alberta (11 sites) by 2021. The initial focus of FLS was with patients 50 years of age or older who had experienced a fragility hip fracture due to the high risk of future/secondary fragility fractures. Tele-FLS was introduced in 2022 with FLS now reaching all hip fracture patients across the province, including Albertans in smaller or remote areas.



Who benefits from the FLS program, and how does it work?

Anyone 50 years of age or older, who has fractured their hip from a low energy trauma, such as a fall from standing height or less will be seen by the FLS team. It may be surprising to know that men make up one quarter of the 30,000 hip fractures caused by osteoporosis in Canada.

Having a FLS program ensures that all people are investigated for osteoporosis and provided treatment options. An FLS nurse completes a bone health history and falls risk assessment for you. The FLS team then develops a personalized treatment plan with the patient and/or support person, including providing information about osteoporosis and fall prevention. The FLS team will contact the patient regularly and keep their family doctor updated, sometimes up to one year following a fracture to see how they are managing and to make changes in their treatment if necessary.

FLS evaluation (seven years later)

The FLS was part of research conducted in Alberta through the the Partnership for Research and Innovation in the Health System (PRIHS 1): Strategies Targeting Osteoporosis to Prevent recurrent Fracture ([STOP Fracture Study](#)) which demonstrated interventions and follow-up markedly increase appropriate osteoporosis therapy for patients following a hip fracture.

This research validated the FLS program as not only cost-effective, but also since inception outcomes continue to dramatically improve as the number of patients who are started on and remain on osteoporosis treatment continue to climb (i.e., prior to FLS the percentage of patients who were on osteoporosis medication was 19.1%, and now 63.3% are). Subsequent fracture rates have declined following the launch of the FLS, leading to improvements in the quality of life for these patients, decreased hospitalizations, and potential system cost savings (i.e., average cost of care for each hip fracture patient in Alberta is \$38,000-\$62,000).

The FLS team have presented at both national and international conferences and have received an [AHS President's Excellence Award in 2018](#) for their improvements to quality care and patient outcomes.

Alberta FLS sites meet Osteoporosis Canada's (OC) essential elements of FLSs, and are featured alongside other Canadian FLSs on the OC FLS Registry and on the International Osteoporosis Foundation's Capture the Fracture map of best practice.

Looking to the future

The FLS team hopes to make further improvements to bone health and prevention of future fragility fractures and/or delay the progression of osteoporosis by assessing and following more people who experience other fragility fractures such as the spine, wrist and shoulder who may also be at moderate to high risk for repeat fractures.

Improving your bone health can involve a range of options from lifestyle changes such as having a diet rich in calcium and vitamin D, engaging in weight-bearing exercises, taking appropriate medications, and reducing your risk of falls.

How good is your bone health? To learn more about your bone health and know your risk – take the quiz - <https://osteoporosis.ca/risk/>. For more information, email: bonejoint.scn@ahs.ca