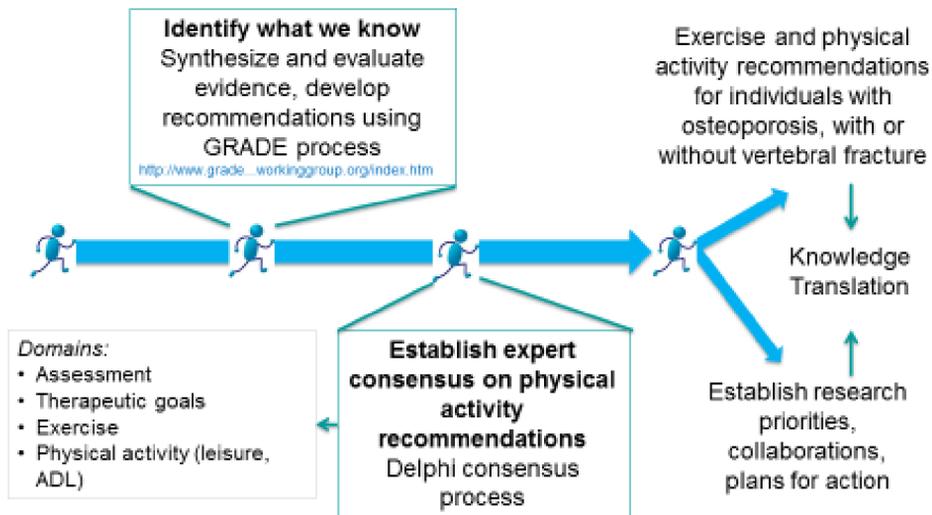


Too Fit To Fracture: Exercise and Physical Activity Recommendations for Fall and Fracture Prevention

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What is Too Fit To Fracture?



Key features:

- International expert panel and contributors, endorsement from Osteoporosis Australia, USA National Osteoporosis Foundation, Finnish Osteoporosis Association, Osteoporosis Canada
- Patient-centred outcomes and representation
- Grading of Recommendations, Assessment, Development and Evaluation for evidence-based recommendations
- Delphi consensus to address patients' FAQ about the safety of physical activities e.g., How much can I lift? Can I still golf? Is it safe for me to do yoga? Is it safe to bend or twist?
- Ontario-wide knowledge translation initiative underway

Evidence-based Exercise Recommendations

Recommendations for older adults with osteoporosis or osteoporotic vertebral fracture:

- We strongly recommend that individuals with osteoporosis engage in a multicomponent exercise program that includes resistance training in combination with balance training.
- We recommend that individuals with osteoporosis do not engage in aerobic training to the exclusion of resistance or balance training.

Consensus on Physical Activity Recommendations

Recommendations for all individuals with osteoporosis:

- Strength training $\geq 2x/wk$
- Balance training **daily**
- Exercises for back extensor muscle endurance **daily**
- Moderate-to-vigorous* aerobic physical activity, 150min/wk, bouts ≥ 10 min
- Spine sparing strategies like hip hinge and step-to-turn can \downarrow spine loads \rightarrow teach how **to** move, rather than how **not** to move
- Moderate risk with strong desire or history of activity may be able to continue with modification and "spine sparing"

Restrictions = disincentive to activity. Not all bending and twisting is bad - Patient should modify activities that apply **rapid, repetitive, weighted or end-range flexion** (forward bending) or **twisting** torque to the spine.

Instead of "Don't bend or twist, don't lift", teach "spine sparing":

- Hinge at hips
- Avoid lifting from, lowering to floor
- Hold weight close to body, not overhead
- Step to turn
- Support trunk when flexing



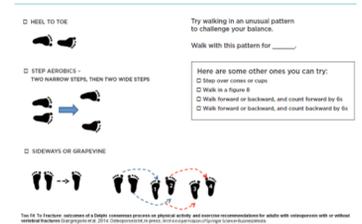
Considerations for individuals at **high** risk of fracture:

- *Aim for moderate intensity – risks of vigorous aerobic physical activity may outweigh benefits.
- Spine loads in supine < standing < seated – consider for activity positioning.
- Supine lying "unloads" the spine, promotes extension, pain relief
- Physical therapist guidance on exercise, activity modification, safe movement, use of assistive aids.
- Risks of sports, exercise machines or classes may outweigh benefits, especially if pain, kyphosis, balance impairment. Choose class taught by instructor with osteoporosis training e.g., Bone Fit

ARM LENGTHENER



WALKING IN A PATTERN



Knowledge Translation

What can a doc do in < 2 minutes? Use our tools!

- **Provide evidence-based recommendations:** balance and posture exercises daily, strength exercises ≥ 2 week, moderate to vigorous* physical activity daily
- **Refer** to community programs/services, BoneFit physio or kin
- **Recommend** spine sparing strategies, supine lying, getting up every 30 min

Too Fit To Fracture landing page: videos on safe movement, webcast, free physical activity booklet, one pager for patients: <http://www.osteoporosis.ca/osteoporosis-and-you/too-fit-to-fracture/> www.bonefit.ca to locate Bone Fit Trained physio, kin, exercise instructor.

Available in November! Videos of cases with exercise demos

Too Fit to Fall or Fracture

Strength Training (more examples) At least 2 days/week



What are spine sparing strategies?

