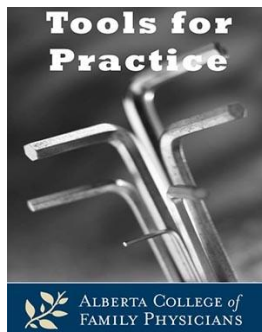


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Reviewed: April 13, 2015
Evidence Updated: Three new systematic reviews
Bottom Line: No Change
First Published: March 21, 2011



Screening for Osteoporosis – Who Should Receive Bone Mineral Density Testing?

Clinical Question: What is the most efficient way to determine which patients are at high risk of osteoporosis and require further testing [Bone Mineral Density (BMD)]?

Bottom-line: The Osteoporosis Self-Assessment Tool (OST) is simple, quick, and predicts osteoporosis as reliably as other more complicated instruments. It is a reasonable screening tool to identify those who would benefit from BMD testing.

Evidence:

- Study of 860 postmenopausal Asian women examined 11 risk factors to predict osteoporosis:¹
 - Multiple risk factors had minimal value over age and weight alone.
 - The OST based on weight and age was developed.
- Eight systematic reviews 2007-2015, with up to 108 studies and 208,738 patients evaluated over nine tools to assess the risk of osteoporosis and/or fractures:²⁻⁹
 - OST performs at least as well as others.²⁻⁹ For example:
 - OST performs moderately well identifying femoral neck osteoporosis (sensitivity 89%, specificity 41%) in postmenopausal white females.⁹
 - Tools with fewer risk factors (like OST) predict osteoporosis as well as or better than those with more risk factors.^{3,4,7-9}
 - No tool was clearly superior.^{3,4,8}
 - Unlike other tools to assess the risk of osteoporosis, OST has been validated in both sexes and a variety of races.^{6,9}
 - There were a number of methodological limitations of included studies.²⁻⁹
 - Recent reviews advocate for simple tools like OST.⁷⁻⁹

Context:

- 2010 Osteoporosis Canada guidelines recommend detailed history and focused physical examination for all patients 50-64 years, including assessment of 10 different risk factors for osteoporosis.¹⁰
- Time required to fully satisfy preventive recommendations is prohibitive.

- For example, physicians need 7.4 hours per working day for the provision of preventive services alone.¹¹
- Multiple sites offer on-line or printable tables to apply OST.¹²⁻¹⁵
- Simple application of OST: **Weight (kg) – Age (years)**.
 - If <10, increased risk of osteoporosis and BMD is warranted.
 - For example: A 55 year old woman weighing 70 kg has an OST=70-55=15,
 - She is low risk for osteoporosis and does not need a BMD.

Original Authors:

Christina Korownyk MD CCFP, G Michael Allan MD CCFP

Updated:

G Michael Allan MD CCFP

Reviewed:

Adrienne J Lindblad BSP ACPR PharmD

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