



Practice Tips

Counseling patients on bone mineral density results

A helpful tool

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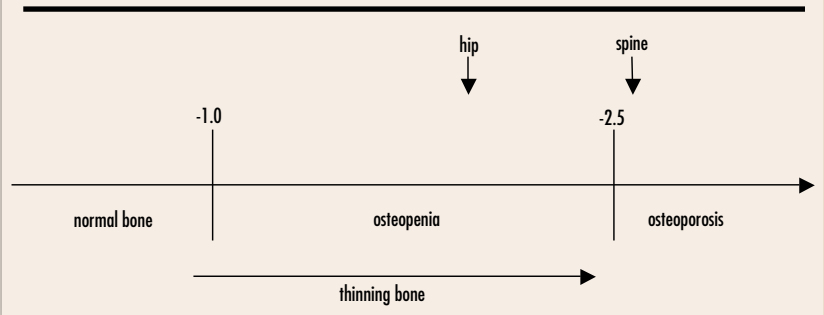
Family physicians are spending more time counseling patients about osteoporosis and are ordering more bone mineral density (BMD) tests. Family physicians are often uncertain, however, about how to treat osteoporosis and osteopenia.¹ I have developed a simple diagram that helps patients understand their BMD results and helps family physicians counsel patients about treatments. This method has not been reported in the literature. MEDLINE and PubMed searches were performed using “bone mineral density” and “counsel” as key words. No similar method was reported.

The diagram displays patients' bone density along a spectrum from normal bone to osteoporotic bone. Once patients understand their bone status, discussions focus on treatment options and prevention of further deterioration.

First, draw a horizontal line and explain to patients that the line represents a spectrum of the density of bone, with the left side being normal bone (Figure 1). Explain that as one progresses toward the right side of the spectrum, the bone is becoming thinner, and that once bones become a certain thinness, the condition of the bone is termed osteopenia. Then, mark off 2 points on the spectrum—each about an inch from the end of the line. Explain that the first point defines osteopenia (-1.0 on Figure 1); and the second point, to the right of the first, defines osteoporosis (-2.5 on Figure 1). A brief explanation of osteoporosis (pointing to the right of -2.5) and its association with increased fracture risk is useful. Explain to patients that BMD tests define their hip and spine densities on this spectrum. Indicate with arrows on the original line at what points their hip and spine measurements lie according to their T-scores. With this method, patients can then see for themselves the condition of their bone density on a spectrum from normal to very fragile.

Because recommendations for treatment of osteopenia are less clear, having a better understanding of the degree of osteopenia might aid patients in their treatment decisions. For example, patients might choose to treat severe osteopenia with bisphosphonates, but treat a milder case

Figure 1. Tool for discussing bone mineral density test results with patients



with exercise and calcium supplements.² Patients can also compare their bone density over time to see if it is shifting substantially to the right side of the spectrum.

To further counsel patients on treatment options, list possible treatments on the same sheet of paper as the diagram. Treatments can include adequate amounts of calcium and vitamin D, exercise, and commonly used pharmacologic options, such as bisphosphonates, selective estrogen receptor modulators, and hormone replacement therapy. At the end of appointments, give the discussion sheets to patients so they can further digest the information and consider their options.

This method of presenting BMD results provides a concise way of informing patients about their bone health and encourages discussions about prevention and treatments. Medical students and residents have found this simple method to be useful both for increasing their own understanding of BMD T-scores and for counseling their patients. 🌿

References

- Jaglal SB, Carroll J, Hawker G, McIsaac WJ, Jaakkimainen L, Cadarette SM, et al. How are family physicians managing osteoporosis? Qualitative study of their experiences and educational needs. *Can Fam Physician* 2003;49:462-8.
- Brown J, Josse R. 2002 clinical practice guidelines for the diagnosis and management of osteoporosis in Canada. *CMAJ* 2002;167(10 Suppl):S1-34.

We encourage readers to share some of their practice experience: the neat little tricks that solve difficult clinical situations. Tips can be sent by mail to **Dr Diane Kelsall**, Scientific Editor, *Canadian Family Physician*, 2630 Skymark Ave, Mississauga, ON L4W 5A4; by fax 905 629-0893; or by e-mail mabbott@cfpc.ca.

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