New Guidelines Support Physical Therapy's Role in Management of Osteoporosis

The recommendations are focused on the ways PTs can help to affect the decline of bone mineral density.

Review

Date: Friday, April 1, 2022

In this review: Physical Therapist Management of Patients With Suspected or Confirmed Osteoporosis: A Clinical Practice Guideline From the Academy of Geriatric Physical Therapy.

The Message

For individuals with osteoporosis, counteracting the decline of bone mineral density, or BMD, can play a key role in maintaining health and lowering the risk of injury. A newly adopted set of guidelines sheds light on the ways physical therapists can help to address BMD loss through exercise. The guidelines also acknowledge that challenges remain, because effecting change in BMD takes time — anywhere from six months to four years or more. The guidelines, identified by APTA Geriatrics with the support of APTA, and endorsed by the association, include exercise recommendations for premenopausal and postmenopausal women. They do not include specific recommendations for men due to a lack of sufficient evidence.

The Study

Aware of the existence of other clinical practice guidelines for treatment of osteoporosis, the academy's guideline development group began its work by looking at relevant CPGs that include exercise recommendations — and that consider effects on BMD. The group narrowed down a pool of 35 CPGs to one guideline with recommendations that could be adopted as a resource for PTs: "Management of Osteoporosis and Prevention of Fragility Fractures," from the Scottish Intercollegiate Guidelines Network, or SIGN.

The SIGN CPG covers multiple areas in the management of osteoporosis, but the academy's development team limited its analysis to only those recommendations related to exercise and BMD, focusing on the evidence supporting each. That evidence, consisting of eight systematic reviews, was strong enough to earn the selected SIGN recommendations grade B ratings, based on what the development team termed "moderate evidence."

Findings

The full CPG from the Geriatric Academy is available at apta.org, accompanied by a CPG+ resource. Here's a snapshot of the recommendations, all of which are based on long-duration exercise (six months to four years or more).

Hip and Femoral Neck — Postmenopausal Women

The CPG recommends that PTs advise static weight-bearing exercises, such as single leg standing, and "adequately dosed progressive-resistance training alone or in combination with impact exercise training such as jogging, walking, or aerobics." The overall dose range in the studies supporting this recommendation averaged 50 to 60 minutes, three times a week, for 40-54 weeks.

Lumbar Spine — Postmenopausal Women

Moderate evidence supported long-duration exercise that includes walking, tai chi, progressive-resistance training, and "different combinations of exercise types."

Femoral Neck — Premenopausal Women

For premenopausal women, PTs should recommend long-duration exercise programs that include high-impact exercise such as jogging and progressive-resistance exercise such as weight training.

Lumbar Spine — Premenopausal Women

Similar to the recommendations related to the femoral neck for premenopausal women, the guidance for lumbar spine suggests long-duration resistance exercise and high-impact exercise.

Exercise Recommendations for Men

The development group found insufficient evidence for exercise to counteract BMD decline in men — an area that authors say needs more exploration.

More From the CPG

Authors acknowledge that exercise can have a positive effect on falls risk and other related issues, but they point out that their focus was solely on BMD decline. And that's where things get a bit tricky — at least in terms of typical health care in the United States.

"The challenge specific to BMD is the long duration needed to improve bone health parameters, paired with the clinical need to document BMD changes that we as physical therapists do not measure," authors write. "The lack of head-to-head comparisons of interventions and outcomes increases the complexity in decision-making for clinicians and for patients to realize progress." That lack of adequate research isn't surprising, they believe, given that studies would have to focus on long-duration interventions across large sample sizes.

In terms of actual clinical implementation, the time needed to affect BMD decline could prove to be an obstacle in the U.S., "where physical therapist care is not commonly sustained for a year or more." The solution may be found in patient-sustained exercise programs accompanied by routine interactions with a PT, they write, adding that "A new model for physical therapy management of patients with osteoporosis could involve concluding and then resuming multiple short episodes of care over an extended time period."

Authors also point out that any long-duration management program will turn on the patient's ability to participate, which can be affected by social determinants of health. They recommend that as PTs design exercise programs for patients with osteoporosis, they consider patient economic stability, education level, access to health care, the patient's built environment, and social and community supports.

Back to top

Thank you, David Bertone

Your membership supports the advancement of physical therapy. If you have questions about your membership, please contact us any time.

Resource Details

Date: April 1, 2022
Contact: news@apta.org
Content Type: Review

Symptoms & Conditions

Osteoporosis

3030 Potomac Ave., Suite 100
Alexandria, VA 22305-3085

Do you need help?

Contact Us

Related APTA Sites

APTA Career Center

APTA Centennial

APTA Learning Center

APTA Store

ChoosePT.com

Guide to Physical Therapist Practice

PTJ

ABPTRFE

ABPTS

ACAPT
CAPTE
Foundation for Physical Therapy Research
Physical Therapy Outcomes Registry
PTPAC
Related Organizations

Find your chapter or section

800-999-2782

For Advertisers, Exhibitors, and Sponsors | For Media

About APTA | Jobs at APTA