

A Comprehensive Program for the Osteoporotic Patient

GIVING THEM A SAFE ALTERNATIVE TO DRUGS

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It hasn't been that long since the arthritis drug Vioxx was taken off the shelves for producing adverse side effects. Merck stopped selling Vioxx in September 2004 after a clinical trial showed it [increased the risk of strokes and heart attacks in some patients](#).¹ In recent news, the drug Fosamax, used in the treatment or prevention of osteoporosis, is being put on trial in a class-action lawsuit. Approximately 800 cases have been brought into a mass lawsuit that alleges the drug [causes osteonecrosis of the jaw](#).²

As the risk of drug side effects continues to take the spotlight, consumers are increasingly looking for alternatives to drugs to manage their conditions. Osteoporosis is no exception. As primary health care professionals who prescribe drug-free therapy, we are well-positioned to expand our practice into the education and treatment of osteoporosis. Let's look at what research says about osteoporosis treatment and discuss how to combine nutrition, exercise and education into a comprehensive program that can be effectively implemented in your practice and community.

Statistics alone show the magnitude of the osteoporosis epidemic. Thirty thousand hip fractures occur each year, with [70 percent to 90 percent caused by osteoporosis](#).³ However, treatment of osteoporosis has always been suboptimal, often the result of a [lack of knowledge and/or compliance by the patient](#).⁴

Key Components of Osteoporosis Management

Nutritional supplementation is an ideal illustration of the need for a proper education program. Calcium and vitamin D supplementation has been shown to reduce rates of bone loss and fracture rates in older adults and the elderly.⁵⁻⁷ Proper nutrition is also essential for those who show up in your clinic with an osteoporotic fracture. Poor nutritional status can limit recovery and increase susceptibility to further fractures.⁸⁻⁹

Although vitamin D and calcium are perceived to be important for bone health by health professionals and patients alike, a study found that [use of these supplements was suboptimal](#).¹⁰ However, when personal knowledge of dual-energy X-ray absorptiometry (DEXA) results were known, there was a [significant increase in calcium intake](#) in postmenopausal women.¹¹ Other studies have shown that use of baseline and appropriate follow-up DEXA scans, and ongoing reinforcement of nonpharmacologic measures, can improve osteoporosis care.¹²⁻¹³

Patient perception and knowledge affects not only their compliance with nutrition, but also with

exercise. Perceived risk of osteoporosis may lead to decreased activity levels, hence resulting in [an increased risk of bone damage](#).¹⁴

All of this emphasizes the need to include ongoing education as part of a comprehensive osteoporosis management program, while understanding and accepting each patient's current view on osteoporosis. If this part of the program is not instituted, compliance with even the best osteoporosis program will always fall short.

Evidence suggests osteoporosis is easier to prevent than to treat. Two types of exercises are important for building and maintaining bone mass and density: weight-bearing exercises and resistance training. In fact, resistance training programs have been shown to increase bone mineral density and prevent further loss of bone mass.¹⁵⁻¹⁷ Apart from maintaining or improving bone health, exercise helps decrease the risk of falls. Although weight-bearing and resistance exercises can help in this area, adding balance training [will increase the effectiveness of any exercise program](#).¹⁸

Individually adapted, intense, high-impact exercise programs are important, but adherence to such programs, especially for those patients who are limited by mobility or function, may not be achievable. This had led to more popular programs such as aerobics, *tai chi* and walking. However, these options [appear to be less effective in the prevention of osteoporotic fractures](#) in the postmenopausal woman.¹⁹

Another option is vibration exercise, which can be utilized as a safe exercise alternative for patients who can't engage in conventional exercise programs. Research on the treatment of osteoporosis shows favorable outcomes including increased bone mineral density in osteoporotic, postmenopausal women over the course of three to six months.²⁰⁻²¹ In addition, there has been a significant reduction in chronic low back pain associated with treatment of osteoporosis with vibration exercise.^{21,22} Not only does vibration therapy show positive response to bones, but it's also effective in reducing risk of fractures and falls.²³⁻²⁴

Integrating the Program in Your Practice and Community

Now that we understand what the critical components of a comprehensive osteoporosis program are, the next issue is exactly how to integrate such a program into our practice, considering practices can vary in terms of space and modalities that we utilize. If you have a rehabilitation practice and plenty of space and staff, you can implement the entire program into your practice. If not, find the one component you can start with right away and basically "outsource" the rest. This involves networking with other health and fitness professionals, various support groups and organizations to provide a team approach to osteoporosis management.

Networking is an essential part of growing any component of a practice. Are there other health professionals in your area that target the osteoporotic patient? Do they only offer one component of a comprehensive program? If so, you have the ability to approach them and initiate cross-referrals. If you are limited in space, you can approach community centers and begin a simple osteoporosis exercise and education program. Having fitness professionals in the area provide these services frees up your time to provide the services you specialize in, such as nutritional counselling, specific rehabilitation exercises to address functional limitations, and of course, chiropractic care for pain relief and increased function.

Developing a comprehensive network of professionals and a great educational program allows your name to get into the community. As I've discussed previously, in order to be successful, we need to realize that some of the services offered will be "loss leaders," meaning some of the time and effort may not provide monetary returns. That's why some of these services can be outsourced, with support from various osteoporosis organizations and support groups.

Keep in mind that being in front of this wide group of people will get your name out there in terms of the services you do provide in your office. I know of chiropractic centers that have fitness facilities associated with them, but the fitness facilities are loss leaders. However, it's the cross-referrals from the facilities that keep the chiropractor busy. Setting up comprehensive programs in the community, such as an osteoporosis management program, will eventually lead to increased referrals.

Apart from community contacts, it's essential to develop relationships with diagnostic facilities and/or health care providers who are involved in this area. Research shows that DEXA results go a long way to increasing compliance with an osteoporosis program. In addition, many of these facilities may not have follow-up support locations for their patient populations. Promoting your program creates a win-win situation for everyone.

Current trends in osteoporosis management clearly suggest there is a backlash against medications commonly used to manage the condition. We are in an ideal position to provide the support and natural treatments people are seeking. By combining education, nutritional therapy and exercise solutions, in addition to seeking complementary partnerships within the community, you can become a valuable solution to the osteoporotic patient.

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