

Osteoporosis and the Total Joint Patient

Osteoporosis is an epidemic condition affecting large numbers of patients including many who are either considering total joint replacement, or who have already undergone total joint replacement.

The significance of osteoporosis to the total joint replacement patient is great. Osteoporosis can impact the security of implant fixation, and plays a critical role in facilitating periprosthetic fractures in total joint replacement patients who sustain postoperative trauma.

Although there is no direct correlation between osteoporosis and osteoarthritis, early diagnosis and treatment of osteoporosis for all patients can have a beneficial effect in improving bone density and theoretically improving boney support for prostheses in those osteoarthritis patients who will ultimately undergo total joint replacement.

Bisphosphonate medications are fast becoming the mainstay of treatment for osteoporosis. As bisphosphonate treatment for osteoporosis continues in widespread use, care will have to be taken to monitor long term effects of these agents on bone physiology and function, in addition to their effect on bone density. Although many bisphosphonates do not retard fracture healing, they can retard fracture remodeling. If this same remodeling process turns out to be important to maintenance of bone ingrowth fixation of implants there may be some long term issues develop with their use with regards to total joint replacement. More research will be necessary to evaluate this and many other questions regarding treatment of osteoporosis and its interplay with total joint replacement.