

BREAKING NEWS

AAOS News: Bio Dynamic Technologies Unveils New Guardian Rehabilitator for Knee Osteoarthritis

New rehabilitator helps knee osteoarthritis patients reduce pain and strengthen quadriceps/hamstrings to delay OA progression.

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Osteoarthritis sufferers now have access to the Guardian Rehabilitator, a new and non-invasive device. Guardian Rehabilitators are the only clinically proven braces to significantly delay the progression of knee OA, demonstrating notable improvements in patient leg strength, pain relief, functional improvements, and patient gait after only 90 days of brace wear. It is currently available and reimbursed by major commercial insurance companies, Medicare, Medicaid and Workers' Compensation.



According to studies published in the *Journal of Arthroplasty*¹, with Guardian Rehabilitator use during two to three hours per day over a period of 90 days, there is a 46 percent decrease in pain and inflammation as well as improvement in gait. Hamstrings strengthen by 27.7 percent and Quadriceps by 54.1 percent. All improvements were measured UNBRACED.

Developed on a foundation of 20 years of brace manufacture, Richard Nace, president of Guardian Brace and Ongoing Care Solutions (OSCI), could see the growing need for non-invasive systems to not just support but delay osteoarthritis; gain stronger, longer lasting results from Total Knee Replacements; and reduce pain. The Guardian Rehabilitator achieves these results with a patented extension assist and pneumatic air components that no other wearable rehab technology offers.

The Guardian Rehabilitator System features three innovative new products:

- Guardian OA Rehabilitator and the Sport Rehabilitator delay the progression of knee Osteoarthritis more effectively than exercise alone while reversing unbraced impact on the knee joint. They strengthen a weakened leg prior to Total Knee Replacement surgery, accelerating and improving recovery by up to 50 percent. They also significantly reduce pain. The Sport Rehabilitator can also be used for ACL and combined ligament injuries.
- The Sport EXT Rehabilitator is ideal orthotic therapy to reverse post-operative knee flexion contractures and extension deficits in gait. It is the only therapy to simultaneously strengthen the quadriceps while lengthening the hamstrings, therapy eliminating quad avoidance gait.

According to orthopedic surgeon Dr. Christine Corradino, M.D. who wore the Guardian Rehabilitator to treat her OA knee, "I was in significant pain, had an altered gait and difficulty climbing stairs." After wearing the brace for one month she reported that "I really don't have pain, have better leg extension and walk in a more normal manner. My quadriceps are stronger so I feel a big difference going upstairs and can now quickly get up from a chair." She recommends that patients use the Guardian Rehabilitator before and after TKA surgery to improve outcomes.

"Patients who use the Unloader Pneumatic Brace demonstrated statistical improvements in functional parameter tests: they had improvements in muscle strength, timed up and go tests, timed stair climbs, repeated chair rise tests and two-minute walk tests, as well as greater improvements in new Knee Society Objective Scores, higher LEFS scores, and decreased pain on the visual analog scale when compared to a matched cohort of corticosteroid injection/physical therapy," according to the *Journal of Arthroplasty* study¹.

Guardian Rehabilitators are available in New York, New Jersey, and Connecticut by physician prescription via Bio Dynamic Technologies. A representative is available at the AAOS Conference to answer questions and demonstrate Guardian.

Reference

¹ Cherian JJ, et al, Strength and Functional Improvement Using Pneumatic Brace with Extension Assist for End-Stage Knee Osteoarthritis: A prospective, Randomized trial, *J Arthroplasty* (2014)