

## Elderly patient with multilevel cervical disc disease treated with posterior instrumentation and posterolateral application of nanocrystalline hydroxyapatite (NanoBone® Bone Graft)

*Vikram Udani, MD  
San Diego, CA*

### Preoperative

Patient is an 82-year-old sedentary female, with symptoms of cervical myelopathy including unsteady gait and difficulty with fine motor control. Preoperative imaging shows severe cervical stenosis in levels C3-C6 with cord compression and myelomalacia. She has no pre-existing comorbidities other than advanced age.

### Surgical Procedure

The patient underwent posterior cervical fusion from C3-C6 with posterior instrumentation, pedicle screws, and rods. The patient had 10ml of NanoBone QD Bone Graft delivered directly into the lateral gutters. Posterolateral gutter fusion surgery is the accepted gold standard surgical approach to achieve effective spinal fusion involving the placement of bone graft in the posterolateral portion of the spine adjacent to treated cervical levels.

### Postoperative Course

At 5-months postoperatively, the patient's VAS neck pain score decreased from 4.0 to 0 and her arm/shoulder VAS pain score decreased from 6.0 to 0. The patient had an Odom rating of Excellent. Postoperative radiography demonstrates intact hardware and a solid fusion mass present in the lateral gutters. The patient's neurological status improved from preoperative, and she is able to perform light-intensity activities with a concomitant decrease in narcotics use.



Preoperative lateral MRI demonstrating severe cervical stenosis



5-month postoperative X-ray demonstrating solid fusion mass