

Intro: Here is NBC medical correspondent Dr. Ian Smith

Dr. Ian Smith: A year-and-a-half after a car accident Edna Ortiz wasn't sure if she'd be able to resume even the smallest of chores around the house. A dislodged disc in her back caused intense pain.

Edna Ortiz: It felt like I was at beginning stages of labor and it was just continuous and it wouldn't stop.

Dr. Ian Smith: But Ortiz enrolled in a clinical trial and 3 weeks ago underwent a new kind of surgery called disc replacement. Her damaged disc was replaced with an artificial one, made of cobalt and polyethylene. Dr. Frank Cammisa is Ortiz's surgeon, and is encouraged by the early results of the trial.

Dr. Frank Cammisa: I definitely think that it's a step forward that can eliminate a patient's pain but provide motion and stability without sacrificing the normal range of motion of the lumbar spine.

Dr. Ian Smith: The traditional approach to treating this kind of back problem has been a spinal fusion, in which hardware is literally screwed into the spinal column to fuse the bones, but in disc replacement surgery, doctors approach the spine from the front. The old, degenerated disc is first removed, the two metal plates of the implant are fastened to adjacent bones in the back, then a hard plastic ball is inserted between them.

Dr. Frank Cammisa: You can see that we can do inflexion and extension, lateral bending and there's an element of rotation as well.

Dr. Ian Smith: Two different implant devices are being tested but it will be at least a couple years before there's enough information to present to the FDA. If approved, doctors believe patients stand to gain much more than they would have from the old lumbar fusion operation. There would be shorter surgery, less blood loss, faster recovery time, and greater spine flexibility, but it's too soon to tell what the side effects may be.

Dr. Tindel: There should be a significant amount of caution with disc replacement surgery. It's really in its infancy at this point and we know very little about some of the problems that may happen down the road.

Dr. Ian Smith: For Edna Ortiz the results so far have been life-changing. Three weeks after surgery she could now chase her children around the playground, without suffering excruciating pain. Dr. Ian Smith, NBC News, New York.

Outro: And you can read more about disc replacement surgery in Ian's column on the internet at Newsweek.msnbc.com.