

Total Disc Replacement: Synthes® Prodisc-C



Overview

This surgical procedure replaces a damaged or diseased disc in the cervical spine with an artificial disc that restores the natural alignment of the spine. Unlike fusion surgery, which causes the vertebrae above and below the problem disc to grow together into a single bone, the artificial disc preserves spine motion at that level.

Preparation

After anesthesia is administered and the patient is positioned, the surgeon creates a small incision in the neck to access the cervical spine.

Clearing the Vertebrae

A tool and guide known as a vertebral body retainer is screwed into the vertebrae. This tool will hold the vertebrae apart and provide a guiding channel for other tools. The surgeon carefully removes the problem disc material and prepares the surfaces of the vertebrae for the artificial disc.

Preparing for the Implant

A drill or chisel is used to create notches, known as keel cuts, in the vertebrae.

Inserting the Implant

The upper and lower sections of the implant are placed together and positioned between the vertebrae.

Securing the Implant

The vertebral body retainer is removed and the spine is returned to normal posture. The implant restores the spine to its proper height and alignment. The spine will be able to move in all directions, which may protect the upper and lower levels of the spine from breaking down.

End of Procedure and Aftercare

The incision is closed and bandaged. The patient will return home after an overnight stay in the hospital. The surgeon will determine the length of the hospital stay and will guide the post-operative recovery. Physical therapy may be needed.