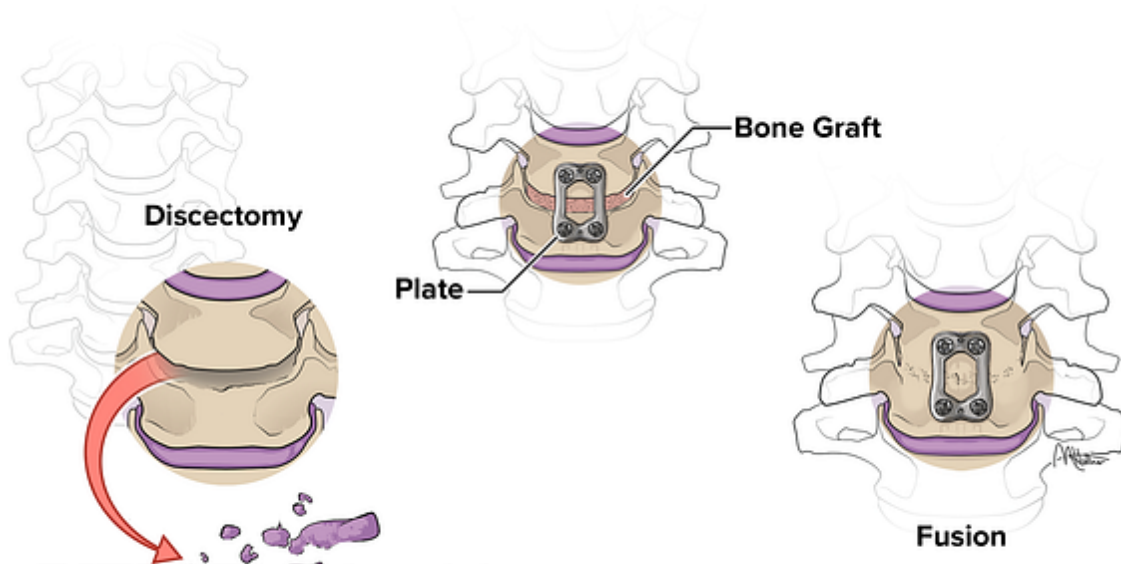


Anterior Cervical Discectomy & Fusion (ACDF), Explained

by Bishop Magehee, PA-S

Overview

An Anterior Cervical Discectomy & Fusion (or ACDF) is a surgical procedure where Dr. Baker will remove one or more of the fibrous discs that sit between the bones that make up your spine (aka your vertebrae) through an incision on or near your throat. A special bone graft is then inserted in the disc's place between the two vertebrae, allowing the two to fuse together. From here, the operation site is closed and sealed threefold: through stitches, staples, and gauze.

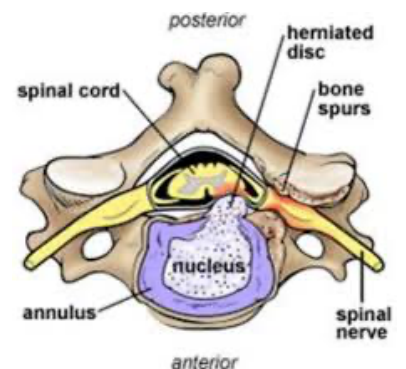


The Details

To understand what an ACDF is, we look to the meanings of each word in its name. Each half of the title tells us:

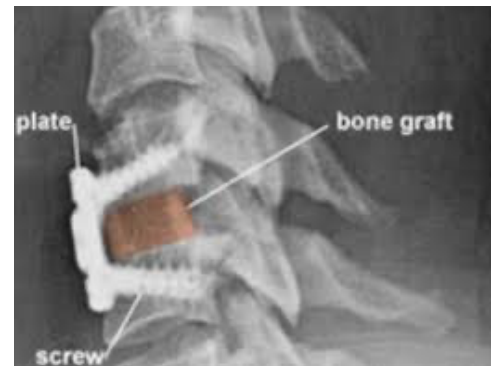
- 1) AC = *Where* the surgery happens, and
- 2) DF = *What* the surgery does

To start, the surgery is “Cervical”, meaning it pertains to the neck, and “Anterior”, meaning we approach the neck bones from the front—this is done because generally, it’s easier for Dr. Baker to operate on the spine in your neck through the throat instead of through the back, where the tough-to-move back muscles and delicate spinal cord and nerves are located.



And what about the “Discectomy & Fusion”? Let’s start with the Discectomy. When the discs in your spine become swollen for one reason or another (i.e., herniation, as pictured above), they expand into the space where your spinal cord and nerves are found, pinching them, and causing symptoms. So, as mentioned before, Dr. Baker will remove one or more of the discs in your spine using specialized surgical tools. This is done to relieve pressure on your spinal cord and treat your symptoms.

But what about the empty space left behind? This is where the “Fusion” comes into play: once the diseased disc is mostly or completely removed, Dr. Baker inserts one or more special bone grafts into the space left behind (as pictured on the right). Each graft is housed inside a metal “cage” and is made with bone or a suitable substitute—if possible, Dr. Baker will use your own bone tissue harvested from another part of your skeleton (the spine itself, if possible), as this drastically speeds up the spine’s healing process. This healing, which occurs in the weeks and months following surgery, creates a bony bridge between the two vertebral bones and fuses them together.



This fusion ensures two things:

- 1) That the spinal cord remains decompressed, and
- 2) That the two vertebrae don’t grind against each other over time, causing symptoms of their own.

To assist the body with this fusion process, Dr. Baker will implant a special metal plating over each fusion site (pictured below), anchoring it with screws into the vertebral bones themselves, to keep the fusion graft stable as your body heals. To finish the procedure, the surgical site is closed with a combination of stitches, staples, or special skin adhesive, and sealed with a sterile gauze.

