Anatomy of the spine

The spine is composed of alternating vertebrae and discs. This system allows for a high degree of flexibility and stability during movements and activities. In the healthy spine, the discs act as a cushion and spacer between the vertebrae. This prevents painful bone-on-bone rubbing and creates a foramen, or hole, through which the nerve roots from the spinal cord can pass.

In the unhealthy spine, discs may be damaged or compressed. This can be caused by trauma, arthritis, or genetics. Limited motion, painful bone-on-bone rubbing, and nerve irritation can all result from significantly damaged or compressed discs. As a consequence, movement can become limited or painful. Spinal fusion is a surgical technique that binds the unhealthy vertebrae together, prevents painful bone-on-bone rubbing, and restores the foramen through which the nerve passes.
UNDERSTANDING SPINAL FUSION

Additional support for the fusion

Your specialist may wish to further support your spinal fusion with either a plate or a cage.

» **Plate and screws**: The plate will be long enough to cover the fused vertebrae. Your specialist will affix the plate with screws above and below the fused disc. The length of the plate and number of screws are based upon several factors, including the number of vertebrae being fused.

» **Screws and rods**: Your surgeon will place the screws in the vertebrae to be fused. These will be connected by rods.

» **Cage**: A cage placed between the two vertebrae can help support the fusion. Your specialist will place the cage between the two vertebrae that are going to be fused and back it with an artificial bone product to facilitate the fusion process.

After the procedure

After your surgery, your length of stay will range from overnight to seven days, depending on your procedure and baseline health. Once you are feeling better, you will be allowed to go home. Depending on the location of the fusion and the procedures performed, recovery from a spinal fusion may take anywhere from three to six months. Your specialist will be able to discuss the details of the surgery and recovery with you as it approaches.

As the surgical date approaches you will be provided more information outlining what to expect before and after surgery, as well as the risks involved. If you have questions, please contact your specialist, the physician assistant or the patient coordinator.