FACT SHEET: WHAT IS CERVICAL DISC DEGENERATION?

Cervical disc degeneration is a common condition of the cervical spine that can cause pain or numbness in the neck, shoulders, arms and hands. This condition occurs when a disc has been damaged from an injury or has deteriorated from the natural aging process. While often associated with aging, cervical disc degeneration can also affect young people.

In fact, according to the National Institutes of Health, neck pain affects up to 15 percent of the U.S. population.

Cervical disc degeneration occurs when one or more of the discs between the vertebrae of the cervical spine has deteriorated or been damaged. The cervical spine is made up of the top seven vertebrae of the spine. Because spinal discs act like shock absorbers between the vertebrae, they help the neck to stay flexible and enable movement in all directions. Over time, though, the discs begin to age and shrink which means there is less cushion and flexibility between the bones in the neck. Age or injury to the discs can also result in tears in a disc's outer wall, causing a ruptured or herniated disc. These conditions can cause pain in the neck, shoulders, arms and hands and can also lead to numbness and weakness in the arm or hands.

Treatment plans may include:

- Over-the-counter pain relievers and rest
- Pain medications or steroid shots
- Physical therapy
- Surgical procedures

Two of the most common surgical procedures are spinal fusion or artificial disc replacement:

- <u>Anterior Cervical Disc Fusion</u> is a surgical procedure where the damaged spinal disc is removed to reduce spinal cord and/or nerve pressure. Following disc removal, the cervical vertebrae on either side of the disc space are joined together in a process called spinal fusion.
- <u>Artificial Cervical Disc Replacement</u> is a surgical procedure that involves removing the damaged spinal disc to relieve symptoms of pain, weakness, numbness and tingling. Following the removal of the cervical disc and any bony materials compressing or pinching the spinal cord and/or nerves, an artificial disc is implanted in its place. This implant is designed to restore proper spacing between the vertebrae, relieve pressure on the spinal cord or nerves, and preserve motion at the treated level.

One of the main differences between spinal fusion and artificial disc replacement surgery is the latter provides a greater range of motion. To meet the needs of most normal day-to-day activities, the spine and its vertebrae must be free to move in multiple directions: backward and forward, side to side, up and down, and rotate right and left. Spinal fusion does not preserve the previous range of motion associated with a natural disc.

For patients with cervical disc degeneration, spine surgeons may choose to use the $M6-C^{M}$ artificial cervical disc to replace the patient's damaged disc with one that is designed to

closely mimic their natural disc, enabling the patient to regain motion and return to their normal activities.