# DEGENERATIVE SPONDYLOLISTHESIS

This booklet is designed to inform you about lumbar degenerative spondylolisthesis. It is not meant to replace any personal conversations that you might wish to have with your physician or other member of your healthcare team.

Not all the information here will apply to your individual treatment or its outcome. The information is intended to answer some of your questions and serve as a stimulus for you to ask appropriate questions about spinal alignment and spine surgery.













## **About the Spine**

The human spine is comprised of the cervical (neck) spine, the thoracic (chest) spine, the lumbar (lower back) spine, and sacral bones. The entire spine is made up of 24 bones, called vertebrae.

These vertebrae are connected by several joints, which allow you to bend, twist, and carry loads. The main joint between two vertebrae is called an intervertebral disc. The disc is comprised of two parts, a tough and fibrous outer layer (annulus fibrosis) and a soft, gelatinous center (nucleus



pulposus). These two parts work in conjunction to allow the spine to move, and also provide shock absorption.



## What is Degenerative Spondylolisthesis?

Degenerative spondylolisthesis is a condition where the intervertebral disc degenerates resulting in a loss of disc height and instability, causing one vertebra to slip forward over another vertebra below it. The word spondylolisthesis is comprised of two parts: *spondylo* meaning spine, and *listhesis* meaning slippage. This condition can cause impingement of the spinal nerves and/or fatigue of the back muscles, and may result in lower back and/or leg pain.

Degenerative spondylolisthesis most commonly occurs in the lower back (lumbar spine) and is graded on a numerical scale from 1 to 4, with 1 being the least severe. It is also more common in people over age 50, and women are two times as likely as men to be diagnosed.



Advanced degenerative disc disease (DDD) may lead to degenerative spondylolisthesis when the spinal bones, discs, joints, and ligaments degenerate and become less able to maintain the alignment of the spinal column.

DDD is defined simply as the wear and tear of intervertebral discs. This wear and tear may result from normal aging or may be due to longstanding trauma. DDD typically begins with a decrease in the water content of the nucelus pulposus and tears in the annulus fibrosus. A progression of DDD may result in spondylolisthesis as well as other conditions (e.g., spinal stenosis and scoliosis).

Degenerative spondylolisthesis may also be caused by other factors such as stress fractures, birth defects (congenital abnormalities), and in rare cases, a tumor or trauma.



## What are the Symptoms?

Symptoms of degenerative spondylolisthesis may include:

- Lower back and/or leg pain
- Sciatica, an aching pain in the hips, buttocks, and lower back that radiates (spreads) into the back of the thighs and legs
- A shuffling gait when walking
- Weakness in the lower extremities
- Abnormal posture

If you feel that you are experiencing any of these symptoms, you should consult a physician for an accurate diagnosis.



## What are the Treatment Options?

If spondylolisthesis is established as a diagnosis, your doctor may recommend one or more of the following treatment plans based on your specific condition:

- Physical therapy and strengthening exercises
- Rest and a restriction of physical activity
- Injections (corticosteroids) to help reduce the pain and swelling
- Medications and analgesics to reduce pain and swelling (typical medications include non-steroidal anti-inflammatory drugs, or NSAIDs)

## **Surgical Solutions**

If your symptoms do not improve with other methods, your physician may suggest spinal surgery. Surgical solutions for advanced DDD with resultant spondylolisthesis may include the following:

- Decompression surgery, such as laminectomy
- Anterior Lumbar Interbody Fusion (ALIF)
- Decompression with fusion surgery
- Posterior Lumbar Interbody Fusion (PLIF)
- NuVasive<sup>®</sup> MAS<sup>®</sup> PLIF
- Transforaminal Lumbar Interbody Fusion (TLIF)
- NuVasive MAS TLIF
- NuVasive XLIF® eXtreme Lateral Interbody Fusion



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### RESOURCES

For more information about degenerative spondylolisthesis please visit:

### www.nuvasive.com

If you would like to learn more about patient support and education for chronic back and leg pain sufferers and their loved ones, please visit:

#### www.thebetterwayback.org

If you have any questions about degenerative spondylolisthesis or spine surgery in general, please call or see your physician, who is the only one qualified to diagnose and treat your spinal condition. This patient information brochure is not a replacement for professional medical advice. **AN INTRODUCTION TO** 

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