



What are spinal discs?

Spinal discs are shock absorbers between the bones in the spine (vertebrae). They also allow the spine to bend and twist.

What is degenerative disc disease?

Degenerative disc disease is the gradual wear and tear on spinal discs. It is a normal part of aging that does not cause problems for most people. In some cases, though, it can cause severe back pain.

When should back surgery be considered?

Most back problems respond to nonsurgical treatments, such as anti-inflammatory medication, ice, heat, gentle massage, and physical therapy. When these treatments do not work, back surgery may offer relief in some cases.

What are some of the different types of back surgery for degenerative disc disease?

Fusion

Spinal fusion surgery creates a solid union between two or more vertebrae, which can make the spine more stable. Fusion may also be used when a degenerated or injured disc causes painful motion between vertebrae. Fusion has been studied and used extensively and its risks and side effects are known.

Artificial Discs

Artificial discs are implanted in the spine to replace damaged discs. It is not yet clear what role they might play as an option for back surgery as they are still being studied.

How effective is spinal fusion?

The success of this surgery is mixed. About two out of three patients showed improvement in symptoms over the long term. Some doctors believe that spinal fusion can cause additional wear on vertebrae and may increase the rate of degeneration of other discs.

How effective is artificial disc placement?

There are no long-term studies on the effectiveness of total disc replacement using an artificial disc. The goal of total disc replacement is to preserve motion and reduce the rate of disc disease in nearby discs. Reliable studies of at least five years are needed to observe the long-term effects of this surgery. At this time, most studies have been no more than two years.

What are the safety concerns with these surgeries?

With any spinal surgery, there is the risk of infection, bleeding, and nerve injury, and there is the potential that the surgery will fail to relieve the pain.

Additional risks for **fusion surgery** may include:

- Allergic reactions to the metal implants
- Failure of the vertebrae to fuse or stay together
- Temporary pain at the site where bone is taken for the surgery, usually the hip

Additional risks for **disc replacement** with artificial discs may include:

- Allergic reactions to the plastic or metal of the artificial disc
- Damage to nearby blood vessels or nerves if the disc moves out of place
- Wear or cracking of the vertebrae to which the disc is attached
- Unintentional fusion, which may decrease movement

Why do we need long-term studies to determine the potential risks with artificial discs?

What is not known about artificial discs is whether, over the long term, any shifting or loosening of the disc could cause damage to surrounding tissues including the vertebrae, spinal cord, nearby blood vessels or nerves. It is also unknown whether any plastic or metal particles are released into the body, how long the device will hold up and whether there are other problems with having this foreign material in the body.

Is placement of an artificial disc covered by Regence?

No. Use of an artificial disc to replace a damaged disc has not been proven to be safe and effective, so it is considered “investigational” and is not covered. You can find more information in the Regence Medical Policy at: <http://blue.regence.com/trgmedpol/surgery/sur127.html>.

If you are thinking about having back surgery, here are additional questions to ask your doctor.

Is it possible to get better without having surgery?

What are the pros and cons of back surgery?

What is the best/worst I can expect?

What are the serious risks from back surgery?

THE BOTTOM LINE

Given enough time, non-surgical methods are a great way to treat degenerative disc disease. If you have tried these methods for at least six months without improvement, your doctor can help you make the decision whether spinal surgery is right for you. Artificial disc surgery is presently considered investigational; more time is needed to study its potential benefits and risks.

Note: Regence physicians, nurses and pharmacists developed this summary to provide you with information about potential advantages and lack of advantages of artificial disc placement. This summary was developed based upon an evaluation of information from the US Food and Drug Administration (FDA), scientific studies and input from practicing doctors and specialists.