Patients with clinical abnormalities confirmed by physical examination, tests, and x-ray are considered for the new procedure. Tests can be done prior to the procedure.

**The Procedure**

The procedure is performed under local anesthesia with sedation or brief general anesthesia with the patient in a supine position. A small needle is inserted into the disc.

Over this probe, a slightly larger sleeve is inserted to permit a 2mm incision to be made in the disc itself. Using x-ray fluoroscopy control, the micro-instruments (forceps, curettes, trephines, rasps, burrs, and cutters), the discectome (which is a hollow probe with a cutting knife inside), and the laser probe are inserted into the disc space through the sleeve. Very small pieces of the disc material are removed and suctioned. The laser shrinks the disc bulge further. The procedure takes about 20 minutes for each level, on average. X-ray exposure is minimal.

The amount of disc removed varies. The supporting structure of the disc is not affected. Upon completion, the needle is removed and a small Band-Aid is applied over the probe incision.

**Postoperative Course**

The patient may feel relief from pain immediately following the procedure. This is an outpatient procedure. Walking and exercising are usually encouraged on the same day. Some patients experience muscle spasms that can generally be relieved with mild analgesics. Pain in the area of the operation is usually minimal and requires little or no medication. From the day of discharge, a daily exercise program is recommended and there is a re-evaluation several days later. Little, if any, postoperative medication is required for most patients. Normal activities can usually be resumed at the doctor's discretion within a few days up to three weeks.

**Advantages**

The primary advantage of this procedure is that there is no interference with the muscles, bones, joints or manipulation of the nerves in the neck area. Since insertion of the probe through the muscle is the only wound, there is no scarring in or around the nerves postoperatively. Additionally, it is an outpatient procedure. Unfortunately, patients who have large free fragments of disc in the spinal canal, as determined by the x-ray, cannot benefit from this procedure. However, the laser can shrink the bulging disc further for disc decompression.

It is essential to understand that all patients are not relieved of their pain with this procedure. Approximately 90 percent of patients will experience pain relief. Patients who do not obtain relief within three to six weeks may be considered for micro-cervical disc removal and fusion, depending on the circumstances. There does not appear to be any detrimental effect from performing percutaneous cervical discectomy before micro-cervical procedure to remove bony discs and bony fusion.

**Summary**

Percutaneous cervical discectomy with laser thermodiskoplasty requires no hospitalization, and usually leads to earlier return to work and earlier return to previous daily activities. Rare patient complications include mild cervical muscle spasms and transient pain. A small percentage of patients do not get relief of symptoms. Patients who initially have obtained good results usually remain pain free.

If you have any questions concerning this procedure, please feel free to discuss the percutaneous cervical endoscopic discectomy procedure with us further.

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**Percutaneous Endoscopic (Arthroscopic) Cervical Discectomy**

Microdecompressive Cervical Discectomy with Laser Thermodiskoplasty

**Neck Surgery Without Stitches (Band-aid Surgery)**

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Ache may also be a major complaint. For many, the only treatment is surgical removal of part of the herniated disc; a major traumatic operation that requires anesthesia, the dissection of muscle and removal of bone and bone fusion. Often, the increased stress from this procedure on adjacent levels can cause a second herniation. Now there is a new and less traumatic procedure for some disc patients known as percutaneous micro-decompression cervical discectomy with laser thermodiskoplasty, an outpatient procedure.

**What is Percutaneous Cervical Endoscopic Discectomy with Laser Thermodiskoplasty?**

Percutaneous Microdecompressive Endoscopic Cervical Discectomy with Laser Thermodiskoplasty, is a new procedure to shrink and remove a herniated disc. Using local or brief general anesthesia with the help of x-rays for guidance, specially designed microinstruments, a discoscope and a laser probe are inserted into the disc space. A portion of the offending disc is removed with suction and then vaporization with a laser shrinks the disc further, in place of open surgery.

Percutaneous cervical discectomy is different from standard cervical disc surgery because there is no muscle dissection, bone removal, bone fusion, or incision, except for a puncture wound to accommodate the micro-instruments that are inserted into the herniated disc. Therefore, most complications that occur with conventional surgery are eliminated with this procedure.

**Who Should Consider This Procedure?**

Percutaneous cervical discectomy is specifically designed for patients with uncomplicated, herniated discs accompanied by the following:

1. Pain radiating from the neck downward to the arm
2. Symptoms including severe headache, tingling, numbness, and findings of muscle weakness, and sensory loss
3. A positive CT or MRI scan for disc herniation
4. No improvement of symptoms after six to eight weeks of conservative therapy
5. Positive electromyogram study is helpful

The procedure is not designed for:

1. Evidence of acute or progressive degenerative spinal cord diseases or neurologic or vascular pathologies mimicking a herniated disc
2. Evidence of advanced spondylosis (significant bony spurs) with disc space narrowing, diffuse annular bulging and other spine irregularities
3. Evidence of significant spinal stenosis
4. Evidence of a large extruded disc or a free fragment or leakage of disc material
5. Existence of other pathologies or conditions such as fractures, tumors, pregnancy or active infections

Other surgical procedures, including micro-surgery, micro-discectomy, and fusion, are used for those patients who cannot have the percutaneous procedure. Only pa-