



Michelle M. Mulder, M.D.

300 White Mountain Blvd, Suite D; Lakeside, AZ 85929

Phone (928) 367-1444

The LEEP Procedure

From your recent Pap smear and biopses, your doctor has determined that you have a disorder of the uterine cervix (the entrance to the womb). This disorder, called Cervical Intraepithelial Neoplasia (CIN), is a change in the surface cells of the cervix. The presence of CIN does not mean that you have cancer, but detection and treatment of CIN is important to avoid the possible development of cervical cancer.

CIN is a lesion of abnormal cells typically associated with the Human Papilloma Virus (HPV). When HPV is contracted, it infects the cells of the transformation zone of the cervix. The transformation zone is the area of cervical tissue where the cells actively divide and grow. As these cells grow and mature, they are pushed to the surface as new cells are produced and the older, outside cells die and are shed. When the virus infects the cell and then becomes active, abnormal cells begin to be produced in the transformation zone and one or more lesions develop.

Removal of the lesion is an effective treatment for CIN. Although HPV remains once the CIN lesion is removed, the rate of recurrence of CIN is quite low since the removal of the transformation zone eliminates the tissue most susceptible to CIN.

Your doctor has chosen to perform a Loop Electrosurgical Excision Procedure. The Loop Electrosurgical Excision Procedure of the Transformation Zone (LEEP) uses a thin wire loop electrode attached to an electrosurgical generator that emits an electrical current to cut away the infected tissue. The electrical current emitted from the loop passes through the tissue cells in the immediate area of the loop wire. As a result, these cells heat rapidly and burst (on a microscopic scale), cutting the tissue and coagulating bleeding as the wire loop is moved through the cervix.

LEEP for the management of CIN allows the physician to have the excised specimen studied by a testing laboratory (pathology). The pathologist's test is important because: 1) it ensures that the lesion was completely removed, and 2) it allows for more accurate assessment of the abnormal tissue.

Prior to arriving for the procedure, Dr. Mulder may advise you to take some *ibuprofen*, *naproxen sodium*, or other pain reliever. This will help to minimize any discomfort during or immediately after the excision procedure. Please follow your doctor's pre-procedure instructions carefully.

The procedure will take 10 to 30 minutes. You will lie on the examination table with your feet in the stirrups: A vaginal speculum will be placed and the colposcope (microscope) will be set up; just as in a routine exam. To prepare the equipment for use, a tube will be connected to the speculum to remove the small amount of smoke that will be generated by the procedure. An electro-surgical dispersive pad will be placed on your thigh. This pad is a gel-covered adhesive electrode that provides a safe return path for the electro-surgical current: The doctor will then attach the single-use, disposable loop electrode to the generator handpiece. Disposables are used to eliminate the possibility of cross-contamination. The cervix may be prepared with acetic acid and iodine solutions so that the doctor can more easily see the extent of the lesion. The doctor will then inject a local anesthetic into the cervix. The electro-surgical generator will be activated and the wire loop will be passed through the surface of the cervix. Depending on the lesion, the excision may take as little as five to ten seconds. Once the lesion has been removed, the doctor will dispose of the loop electrode and use a different electrode to stop any bleeding that occurs. A topical solution may also be used to prevent bleeding. You should be able to leave the office soon after the procedure. After the procedure, your doctor will send the excised specimen to the pathologist, where it will be examined to verify that the CIN lesion has been completely removed and properly classified.

As with any surgical procedure, complications are possible following the LEEP procedure. You may experience some pain, discomfort, or bleeding, but these symptoms are typically mild. If bleeding is more than experienced in a typical period or if significant pain persists, you should notify our office.

Dr. Mulder or Dr. Hanes will give you instructions that you should follow for the three week period immediately following the procedure. These instructions usually include:

1. Refrain from sexual intercourse
2. Do not lift heavy objects
3. Do not use tampons
4. Do not douche

Watch for any heavy vaginal discharge, strong odor, or heavy bleeding. Call our office at (281) 364-1014 if any of these complications arise.

Finally, Dr. Mulder or Dr. Hanes will request that you return in the upcoming months for follow-up Pap smears or colposcopy. This will be necessary to ensure that CIN has been completely removed from your cervix or has not recurred.

If you have any questions, call our office at (281) 364-1014.