PATIENT INFORMATION SHEET:
THYROID NODULES

You have been referred to the Endocrinology Clinic because your doctor has detected a nodule on your thyroid gland. Your thyroid gland is in your neck and a thyroid nodule is a “lump” on your thyroid. Doctors usually find thyroid nodules when they examine patients but sometimes patients find their own thyroid nodule when they see it in a mirror or feel it in their neck. Thyroid nodules are also frequently found by surprise when an ultrasound, CT scan, or MRI scan of the neck area is performed.

Thyroid nodules are a common problem. Approximately one out of every twenty adults in the United States will have a thyroid nodule that can be felt by a doctor. When adult patients without known thyroid disease have ultrasound tests of their neck for other reasons, a thyroid nodule will be found in approximately one third of them. Thyroid nodules are thyroid tumors. Fortunately, the great majority of these tumors are benign. Only one out of every fifteen thyroid nodules turns out to be thyroid cancer. However, because of the small possibility of thyroid cancer, a thyroid nodule should be evaluated by an endocrinologist—a gland specialist. In the great majority of patients, the most important test to perform is a fine needle aspiration biopsy of the nodule. The fine needle biopsy is a fairly simple test that is performed as an outpatient procedure in our clinic. Many of the thyroid nodules found by surprise on ultrasounds, CT scans, or MRI scans are so small that they do not require a biopsy.

The fine needle biopsy is performed by placing a small needle on a syringe and then placing the needle into the thyroid gland. Suction is then applied to the syringe and the needle is gently moved around within the thyroid. Since the tissue samples obtained from this procedure are very small, the procedure is usually repeated at least two or three times so that an adequate sample of thyroid tissue can be obtained. Surprisingly, there is usually only a small amount of discomfort associated with the procedure, and local anesthesia is rarely necessary.

The risk associated with this procedure is very small. Whenever a needle is placed into the body, there is a small risk of bleeding and a small risk of infection. Also, it is possible that a structure other than the thyroid might be punctured with the needle. This is a very rare occurrence, and when it does happen there is usually no associated injury because the needle that is used for the biopsy is very small—much smaller than the needle that is used to draw blood from your arm.

Although the needle biopsy test is a very good test, it is not a perfect test. In approximately 75 percent of cases, a clear diagnosis of either a benign tumor or a malignant tumor is obtained from the biopsy procedure. In the remaining 25 percent of cases, a clear diagnosis is not obtained and other tests or a repeat biopsy may be required.

The treatment options available for thyroid nodules are actually quite simple. The nodule can either be surgically removed or it can be left alone. Obviously, the higher the probability of cancer in your nodule, the more likely that surgical removal of the nodule will be recommended. When a needle biopsy clearly indicates thyroid cancer, surgical removal is strongly recommended.
recommended. When the needle biopsy reveals a clearly benign thyroid nodule, surgery is usually not recommended unless the nodule is very large or unless the nodule is causing symptoms. Patients with benign nodule results are seen back in approximately 6-9 months to see if the nodule has changed in size.

It should again be emphasized that the great majority of thyroid nodules turn out to be benign. Even when thyroid nodules turn out to be malignant, in most cases the thyroid cancer can be cured completely with the proper treatment. Unlike most cancers such as breast cancer and lung cancer, thyroid cancer is usually not an aggressive cancer. It usually does not spread quickly to other parts of the body. Because thyroid cancer is usually not aggressive, there is usually no reason to rush a patient with an unclear diagnosis off to surgery. Usually, time can be taken to follow the size of the nodule over a 6-12 month period to see whether or not it increases in size. Repeat biopsies are also sometimes helpful in patients whose first fine needle biopsy is non-diagnostic.

In summary, thyroid nodules are very common in the general population and the great majority of these nodules are benign. The best test to determine whether or not a nodule is malignant is the fine needle biopsy of the thyroid gland. When a needle biopsy indicates cancer, thyroid surgery should be performed. When a biopsy result is benign, surgery is usually not indicated but regular follow-up in a thyroid clinic is still important.

If you are on coumadin, heparin, aspirin or another blood thinner, notify us immediately. It may be necessary to stop your blood thinner for a few days before the procedure. No special precautions or restrictions are required following a fine needle aspiration biopsy. You may go about your normal activities. Remember, there is always a very small risk of bleeding, bruising or infection after any procedure. Should you develop any problems or concerns, please call the clinic.

If you develop severe symptoms such as breathing difficulty following a thyroid biopsy, and you are unable to contact the clinic, it is best to go immediately to the Emergency Room.