



Tulane University

SCHOOL OF MEDICINE

Radiofrequency Ablation:

A Minimally-Invasive Alternative to Thyroid Surgery

The thyroid is a small gland in the neck that partially wraps around the trachea or windpipe. The gland is responsible for secreting hormones that control our metabolism, the thyroid can have a huge impact on weight gain, fatigue, heart rate, sleep and numerous other health facets. Despite the importance of the thyroid, many people will never give this gland much thought.

However, there is an incredibly common thyroid condition - thyroid nodules. These nodules are more prevalent in women than men and most often affect older individuals, but anyone of any age can develop thyroid nodules. Many people with small nodules never realize the problem is present unless the nodules are caught on scans ordered by their physicians or if they have issues with metabolism.

For others, though, thyroid nodules are large enough to be visible as lumps or swelling in the lower neck and may even be painful or interfere with swallowing. Also, thyroid nodules can disrupt hormone production and lead to a metabolic condition called hyperthyroidism, characterized by frequent perspiration, elevated heart rate and palpitations, irritability, tremors and weight loss. For decades, surgery has been the traditional treatment for symptomatic thyroid nodules, but this approach is beginning to change with the recent approval of thyroid radiofrequency ablation (RFA) treatment by the Food and Drug Administration (FDA).

Expert Care

By any standards, Dr. Emad Kandil is an expert in thyroid treatment. Dr. Kandil serves as the chief of endocrine and oncological surgery at Tulane, and he is a passionate advocate of RFA for thyroid nodules. Dr. Kandil has trained in RFA outside of the United States, where the approach has been used for years in nodule treatment before FDA approval here at home. He underwent extensive education and training in both Italy and South Korea to master RFA techniques, and today, he has the largest experience in the country using this novel technology and heads the only thyroid RFA training center in the nation at the Tulane University School of Medicine. Many physicians from all across the country have traveled to New Orleans to train with and observe Dr. Kandil in order to learn how to perform this procedure.

When surgeons talk about “minimally-invasive” surgery, they are usually referring to an alternative to “open” surgery. For example, a minimally-invasive gallbladder removal would use small incisions or ports to introduce a camera and instruments into the patient’s body rather than a large, open abdominal incision. Minimally-invasive surgery can lower the risk of complications and reduce healing time, but - as in the previous example - often still leaves patients with temporary postoperative pain, time off work and scarring. This is not the case with radiofrequency ablation of thyroid nodules.

Dr. Kandil explains that RFA uses radio waves to heat up and destroy nodular tissue. There is no need for incisions of any type, no general anesthesia and patients are back to work immediately. Also, RFA treatment leaves no lasting scars and has a very tiny risk of complications, when compared to traditional surgery. RFA treatment can be delivered on an outpatient basis without general anesthesia, and patients report the procedure to be virtually painless. Dr. Kandil states, “RFA truly changes the game for patients’ thyroid nodule treatment choices. The procedure only takes a few minutes, and RFA is much less costly

than thyroid surgery. We’ve also seen great success with RFA. Currently, there are over 100,000 thyroid surgeries performed annually in the USA, and we want to let people know this alternative is available to avoid surgical intervention in many of these patients.”

"It was definitely worth the trip to receive treatment."

- James Arnold, Ft. Walton Beach, FL

Patient Experiences

Multiple patients confirm Dr. Kandil’s assertions about the convenience and effectiveness of thyroid nodule RFA. Regine Boucard’s nodule was found on imaging performed for a suspected neck injury. She wanted it removed but was too busy to go through the trouble of conventional surgery. Instead, she turned to Dr. Kandil and credits him for an easy, simple experience. “It was incredible,” she says. “I felt nothing during the procedure. Afterward, I simply held an ice pack to my neck for a few hours, and then I was fully recovered. There were only tiny needle marks that disappeared within about a week but no scar. My nodule decreased in size by 80%, and I enthusiastically recommend the procedure.”

FA procedures can be performed in minutes and can prevent the need for thyroid surgery in many patients.

Another patient of Dr. Kandil, James Arnold, agrees. A veteran living in Ft. Walton Beach, FL, Mr. Arnold was referred to Dr. Kandil after a blood test showed evidence of hyperthyroidism, which is an overactive gland due to a nodule that secretes too much hormones. His endocrinologist in Florida, Dr. Cruz, discovered an overactive thyroid nodule. He was initially placed on medications to medically treat his disease but was not controlling his hyperactive nodule. He, too, had his nodule shrink by 80% after a single RFA treatment from Dr. Kandil. But the difference here is that his nodule is not overactive anymore and he is completely cured from this disease. Mr. Arnold relates that the process was painless and quick, “It was definitely worth the trip to receive treatment from Dr. Kandil. I give him all the credit for an excellent outcome and a great experience.”

Radiofrequency ablation for thyroid nodules is virtually guaranteed to grow in popularity as word spreads about this safe, convenient and cost-effective alternative to surgery. Unlike surgery, RFA is truly minimally-invasive and allows patients to receive definitive treatment for thyroid nodules, with almost no disruption to their lives, no scarring and no pain.

If you or loved ones are interested in exploring this option, you can reach out to Tulane Thyroid Center to schedule an appointment to discuss your options.

RFA for thyroid nodules was FDA approved earlier this year, and Tulane offered the first approved training course in the country.