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Kuo JH et al. Breast cancer in thyroid cancer survivors: An analysis of the Surveillance, Epidemiology, and End Results-9 database. *Surgery*, October 29, 2015 [Epub ahead of print].

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Some scientists have suggested that abnormal thyroid hormone levels, in particular an increased TSH level, may contribute to a risk of death from cancer. This may be due to an increase in cancer growth caused by the increased TSH level. In this study, the investigators compare the death rate from non-thyroid cancers between people who had subclinical hypothyroidism and people who had normal thyroid function.

Tseng FY et al. Subclinical hypothyroidism is associated with increased risk for cancer mortality in adult Taiwanese—a 10 years population-based cohort. *PLoS One* 2015;10:e0122955.

**HYPERTHYROIDISM.....6**  
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In women with hyperthyroidism, the American Thyroid

Association guidelines recommend using PTU in the 1st half of pregnancy if drug treatment is needed due to a greater frequency of birth defects with MMI. While 2 recent studies confirm this increased risk with MMI, 4 other recent studies suggest there is no increased risk with either drug. The present article analyzes these recent 6 studies to explain the different results found in an attempt to determine if there is actually an increased risk of birth defects with antithyroid drugs.

Laurberg P and Andersen SL. Antithyroid drug use in pregnancy and birth defects: why some studies find clear associations, and some studies report none. *Thyroid*. September 17, 2015 [Epub ahead of print].

**GRAVES' DISEASE.....8**  
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Many patients choose antithyroid drug treatment at initial diagnosis of Graves' disease then continue this in hopes for a remission of the Graves' disease, which occurs in ~25% of patients. Frequently, patients will then elect a more permanent option such as thyroid surgery or RAI if they relapse. This study compared outcomes in patients who had received either RAI or chronic ATD therapy.

Villagelin D et al. Outcomes in Relapsed Graves' Disease Patients following Radioiodine or Prolonged Low Dose of Methimazole Treatment. *Thyroid*. Vol 25 (12), 2015 [Epub ahead of print].

**THYROID NODULES.....10**  
**Laser ablation therapy is effective for shrinking benign thyroid nodules but has significant complications**

Laser ablation therapy for benign thyroid nodules is a relatively new, non-surgical procedure. This study aimed to determine if laser ablation for benign thyroid nodules was effective, well tolerated and if complications occurred.

Pacella CM et al Outcomes and risk factors for complications of laser ablation for thyroid nodules. a multicenter study on 1531 patients. *J Clin Endocrinol Metab*. August 14, 2015 [Epub ahead of print].

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[www.thyroid.org](http://www.thyroid.org)

**Editor**

Alan P. Farwell, MD, FACE  
Boston Medical Center  
Boston University School of Medicine  
88 East Newton St., Boston, MA 02115  
American Thyroid Association  
e-mail: [thyroid@thyroid.org](mailto:thyroid@thyroid.org)  
[www.thyroid.org/patients/ct/index.html](http://www.thyroid.org/patients/ct/index.html)

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**Executive Director**

Barbara R. Smith, CAE  
American Thyroid Association  
6066 Leesburg Pike, Suite 550  
Falls Church, VA 22041  
Telephone: 703-998-8890  
Fax: 703-998-8893  
Email: [thyroid@thyroid.org](mailto:thyroid@thyroid.org)

**Designed by**

Karen Durland, [kdurland@gmail.com](mailto:kdurland@gmail.com)

**Clinical Thyroidology for the Public**

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CLINICAL **THYROIDOLOGY** FOR THE **PUBLIC**

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## EDITOR'S COMMENTS

Happy New Year and welcome to another year and another issue of *Clinical Thyroidology for the Public*. In this journal, we will bring to you the most up-to-date, cutting edge thyroid research. We will be providing summaries of research studies that were discussed in a recent issue of *Clinical Thyroidology*, a publication of the American Thyroid Association for physicians. These summaries are present in lay language to allow the rapid dissemination of thyroid research to the widest possible audience. This means that you are getting the latest information on thyroid research and treatment almost as soon as your physicians. As always, we are happy to entertain any suggestions to improve *Clinical Thyroidology for the Public* so let us know what you want to see.

We also provide even faster updates of late-breaking thyroid news through **Twitter** at [@thyroidfriends](https://twitter.com/thyroidfriends) and on **Facebook**. Our goal is to provide patients with the tools to be the most informed thyroid patient in the waiting room.

Also check out our friends in the **Alliance for Thyroid Patient Education**. The Alliance member groups consist of: the *American Thyroid Association*, *Bite Me Cancer*, the *Graves' Disease and Thyroid Foundation*, the *Light of Life Foundation*, *ThyCa: Thyroid Cancer Survivors Association*, *Thyroid Cancer Canada* and *Thyroid Federation International*.

January is [Thyroid Awareness Month](#).

**In this issue, the studies ask the following questions:**

1. Do women with thyroid cancer have an increased risk of developing breast cancer?
2. Does subclinical hypothyroidism increase the risk of dying of non-thyroid cancers?
3. What is the best treatment for hyperthyroidism in pregnancy?
4. What is the best treatment for relapsed/recurrent Graves' disease?
5. Is there a role for laser ablation therapy in the management of benign thyroid nodules?

We welcome your feedback and suggestions. Let us know what you want to see in this publication. I hope you find these summaries interesting and informative.

— Alan P. Farwell, MD, FACE



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**THYROID CANCER****Women with thyroid cancer have a higher risk of breast cancer****BACKGROUND**

As more people are being diagnosed with thyroid cancer, and survival rates are generally excellent, there are more survivors of thyroid cancer. These survivors have been shown to have increased risk for secondary cancers with a risk of 16% at 25 years post-diagnosis. Previous studies done in patient populations from a small number of institutions showed an increased risk for breast cancer in women with a history of thyroid cancer. The cause for this is unclear, but genetic changes, radiation exposure, and hormonal factors have been considered. This study expands these observations by using the national SEER database, which represents about 10% of the US population, to see if the risk noted previously was applicable to the general population. It was also done to further explain the elevated risk for breast cancer in female survivors of thyroid cancer.

**THE FULL ARTICLE TITLE**

Kuo JH et al. Breast cancer in thyroid cancer survivors: An analysis of the Surveillance, Epidemiology, and End Results-9 database. *Surgery*, October 29, 2015 (Epub ahead of print)

**SUMMARY OF THE STUDY**

The study included women over the age of 18 enrolled in the SEER database between 1973 and 2011. A total of 707,678 women with breast cancer and 53,853 women with thyroid cancer were found in this database. Of the women with thyroid cancer, 1750 women had breast cancer after the diagnosis of thyroid cancer. The 10 year risk for breast cancer after thyroid cancer was calculated and compared to the 10 year risk in the general population. Also, information about the tumor histology, lymph node involvement, the use of radioactive iodine and traditional radiation treatment was available since 1990.

The 10 year risk for developing breast cancer was higher in the patients with a history of thyroid cancer. At age 40-49, the risk for breast cancer in patients with thyroid cancer was 5.6% compared with 1.5% in the general population. For 50-59 year old women, the risk was 12.8% vs. 2.4% in the general population. For 60-69 year-old women, the risk was 7.4% vs. 3.6% in the general population. Women in their 70's had a risk for 11.1% vs. 3.8% in the general population. Breast cancer developed on average 5 years after the thyroid cancer diagnosis. Patients who developed breast cancer after thyroid cancer were more likely to have follicular thyroid cancers than patients with thyroid cancer who did not develop breast cancer. More thyroid cancer survivors have estrogen receptor/progesterone receptor positive cancers and more mixed ductal and lobular invasive breast cancer types than the general population who develops breast cancer. Patients with thyroid cancer who develop breast cancer were younger than the average patient who develops breast cancer (age 58 vs. 61).

**WHAT ARE THE IMPLICATIONS OF THIS STUDY?**

This study confirms that women who have thyroid cancer are at increased risk for breast cancer, and the cancer is histologically different than the general. The cause of this increased risk was not able to be determined by this study and may be related to a genetic predisposition to cancer itself or environmental factors. These data indicate that women who survive thyroid cancer should have more frequent mammographic screening and breast exams to evaluate for breast cancer than the general population of women.

— Julie Hallanger Johnson, MD

**ABBREVIATIONS & DEFINITIONS**

**SEER:** Surveillance, Epidemiology and End Results program, a nation-wide anonymous cancer registry generated by the National Cancer Institute that

contains information on 26% of the United States population. Website: <http://seer.cancer.gov/>



## HYPOTHYROIDISM

# Subclinical hypothyroidism is associated with increased mortality from non-thyroid cancers

### BACKGROUND

Subclinical hypothyroidism is common and can be seen in up to 20% of some patient groups. This occurs when the TSH is increased but the thyroid hormone levels are normal. Whether or not to treat subclinical hypothyroidism is controversial. Some studies suggest an increased risk of heart problems and increased cholesterol levels while other studies find no such association. Along these lines, some scientists have suggested that abnormal thyroid hormone levels, in particular an increased TSH level, may contribute to a risk of death from cancer. This may be due to an increase in cancer growth caused by the increased TSH level. In this study, the investigators compare the death rate from non-thyroid cancers between people who had subclinical hypothyroidism and people who had normal thyroid function.

### THE FULL ARTICLE TITLE

Tseng FY et al. Subclinical hypothyroidism is associated with increased risk for cancer mortality in adult Taiwanese—a 10 years population-based cohort. *PLoS One* 2015;10:e0122955.

### SUMMARY OF THE STUDY

This study was done in Taiwan, in four private nationwide health screening centers. In these centers, people go for routine health examinations at least every 3 to 4 years. A total of 124,456 individuals older than 20 years who visited these centers in 1998 to 1999 were considered to enter the study. Patients on medications for thyroid conditions and patients who had hyperthyroidism or moderate or severe hypothyroidism were omitted. The final number of participants was 115,746. Information about other medical conditions like high blood pressure, high cholesterol, obesity and diabetes as well as smoking, alcohol consumption, physical activity, income and education was gathered by researchers. The patients who entered into the study were divided into two groups; one group consisted of persons with subclinical hypothyroidism and the other with normal thyroid function. They were followed for ten years (until 2008). The number of deaths and the cause of deaths were determined and compared between the groups.

A total of 1.6% of study participants had subclinical hypothyroidism in the beginning of the study. They tend to be older and more obese. Most of them were females. They also had a higher level of blood sugar, blood pressure and cholesterol as compared to group who had normal thyroid. A total of 3669 deaths occurred within the ten year study in both groups with 1532 of these deaths due to cancer. The number of deaths from cancer was higher in the group with hypothyroidism — they had 1.51 times the risk of dying from cancer compared to the other group. The cancers observed more frequently in the subclinical hypothyroid group were bone, skin and breast cancer.

### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This study suggests that the risk of dying from cancer may be higher in patients who have subclinical hypothyroidism when compared with people with normal thyroid hormone. The finding of this study should be confirmed and followed by future research. Other factors rather than simply level of thyroid hormone may be different between people who have mild hypothyroidism and normal thyroid. Future studies should consider all the other factors that might be different between the two groups and might affect the cancer growth. Further, it is unclear if treating subclinical hypothyroidism would have any effect on the death rate for other cancers. More studies are needed to evaluate this possibility. However, this study suggests another reason to consider treating patients with subclinical hypothyroidism.

— Shirin Haddady, MD, MPH

### ATA THYROID BROCHURE LINKS

Hypothyroidism: <http://www.thyroid.org/hypothyroidism/>

Thyroid Function Tests: <http://www.thyroid.org/thyroid-function-tests/>





**HYPOTHYROIDISM**, continued

**ABBREVIATIONS & DEFINITIONS**

**Hypothyroidism:** a condition where the thyroid gland is underactive and doesn't produce enough thyroid hormone. Treatment requires taking thyroid hormone pills.

**Subclinical Hypothyroidism:** a mild form of hypothyroidism where the only abnormal hormone level is an increased TSH. There is controversy as to whether this should be treated or not.

**TSH: thyroid stimulating hormone** — produced by the pituitary gland that regulates thyroid function; also the best screening test to determine if the thyroid is functioning normally.





## HYPERTHYROIDISM

# When and how to use antithyroid drugs during the first trimester of pregnancy

### BACKGROUND:

Antithyroid drugs, such as methimazole (MMI) and propylthiouracil (PTU) have been used to treat hyperthyroidism during pregnancy. The American Thyroid Association and the Endocrine Society guidelines recommend using PTU in the 1st half of pregnancy if drug treatment is needed due to a greater frequency of birth defects with MMI. This increased risk of birth defects with MMI is very small as a Food and Drug Administration review of all pregnancies between 1969-2009 found 29 reports of birth defects associated with MMI use in the first trimester of pregnancy as compared to 9 reports of PTU-associated birth defects. Two more recent studies have found a higher rate of birth defects (2-4%) in children exposed to MMI during the first trimester of pregnancy and one of these also reported some cases of PTU-associated birth defects. However, four other recent studies have not found an association between the use of antithyroid drugs during pregnancy and the development of birth defects. The present article analyzes these recent 6 studies to explain the different results found in an attempt to determine if there is actually an increased risk of birth defects with antithyroid drugs.

### THE FULL ARTICLE TITLE:

Laurberg P and Andersen SL. Antithyroid drug use in pregnancy and birth defects: why some studies find clear associations, and some studies report none. *Thyroid*. September 17, 2015 [Epub ahead of print].

### SUMMARY OF THE STUDY:

The two studies that showed an association between MMI use and birth defects included a much larger number of children exposed to MMI during the first trimester of pregnancy (1231 and 1907 children, respectively) as compared to the four studies that found no association (73, 108, 30, and 124 children, respectively). In addition, the studies that found no association looked only for certain major birth defects and not the minor ones specifically associated with antithyroid drug use in the prior studies.

The study that reported PTU-associated birth defects did not include more children as compared to the other studies (564 children versus 1399, 603, 915, 507, 52

children exposed to PTU, respectively); however, this study evaluated children over a longer period of time, up to two years of age, while the other studies evaluated children up to maximum one year of age. The PTU-associated birth defects were in general milder and diagnosed later when they resulted in complications, usually after one year of age.

One of the two studies that showed an association between MMI use and birth defects recorded the thyroid function test results of the pregnant women and found no association between abnormal thyroid test results in early pregnancy and the development of birth defects.

### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

The studies that found no association between the use of antithyroid drugs in early pregnancy and birth defects in the offspring did not include enough subjects and did not follow the children for a long enough period of time to detect these abnormalities. In summary, it appears that as many as 2-4% of children exposed to MMI in the first trimester of pregnancy may develop birth defects, some of them being severe. PTU use in early pregnancy can also result in birth defects at a much lower rate.

Because of the increased risk of birth defects with MMI as compared to PTU, the American Thyroid Association and the Endocrine Society guidelines recommend to use PTU to treat hyperthyroidism in the first trimester of pregnancy and then switch to MMI for the rest of the pregnancy. Certainly, as is the case with all medications during pregnancy, if antithyroid drugs are needed, they should be limited to the lowest effective dose possible during the first trimester of pregnancy. As previously recommended, PTU and not MMI is the preferred antithyroid drug for use in early pregnancy if needed, since it results in less frequent birth defects.

— Alina Gavrila, MD, MMSC

### ATA THYROID BROCHURE LINKS

Hyperthyroidism: <http://www.thyroid.org/hyperthyroidism/>

Thyroid and Pregnancy: <http://www.thyroid.org/thyroid-disease-pregnancy/>

**HYPERTHYROIDISM**, continued**ABBREVIATIONS & DEFINITIONS**

**Hyperthyroidism:** a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

**Antithyroid drug:** medication that blocks the thyroid from making thyroid hormone

**Methimazole:** an antithyroid medication used to treat hyperthyroidism, especially when it is caused by Graves' disease.

**Propylthiouracil (PTU):** an antithyroid medication used to treat hyperthyroidism, especially in early pregnancy.

**Newborn period:** the first month of life.

## Thyroid Awareness Monthly Campaigns

The ATA will be highlighting a distinct thyroid disorder each month and a portion of the sales for Bravelets™ will be donated to the ATA. The month of January is **Thyroid Awareness Month** and a bracelet is available through the [ATA Marketplace](#) to support thyroid cancer awareness and education related to thyroid disease.



**GRAVES' DISEASE****Comparison of treatment options for recurrent Graves' disease****BACKGROUND**

Graves' disease is the most common cause of hyperthyroidism in the United States. Graves' disease is an autoimmune disease caused by an antibody that attacks and turns on the thyroid. Several treatment options exist for Graves' disease, including surgical thyroid removal, radioactive iodine (RAI) therapy and anti-thyroid medications (ATD). Many patients choose ATD treatment at initial diagnosis then continue this in hopes for a remission of the Graves' disease, which occurs when the antibody goes away. Unfortunately, this only occurs in ~25% of patients, so Graves' disease often recurs after stopping the ATD. Frequently, patients will then elect a more permanent option such as thyroid surgery or RAI. This study sought to investigate outcomes in patients with relapsed/recurrent Graves' disease after prior treatment with ATDs. They compared outcomes in patients who had received either RAI or chronic ATD therapy.

**THE FULL ARTICLE TITLE**

Villagelin D et al. Outcomes in Relapsed Graves' Disease Patients following Radioiodine or Prolonged Low Dose of Methimazole Treatment. *Thyroid*. Vol 25 (12), 2015 [Epub ahead of print].

**SUMMARY OF THE STUDY**

All patients had a history of Graves' disease that had been treated with an ATD. These patients later experienced a relapse/recurrence of Graves' disease and required repeat treatment. They compared outcomes in patients with relapsed Graves' disease who had either chosen repeat therapy with methimazole (an ATD) or more definitive therapy with RAI. Patients were followed for an average

of ~6 years following recurrence (relapse) of their Graves' disease. Patients who had chosen to have long term ATD therapy were more likely to have normal thyroid function (by blood tests) than those treated with RAI. Hypothyroidism was more common in those electing RAI treatment than ATDs at 60 months of follow up. Worsening of Graves' eye disease was more common in patients who had chosen RAI therapy. These investigators also examined patient quality of life using a questionnaire and found no differences in outcome with either therapy in patients with normal thyroid function. Body weight tended to be higher in patients treated with RAI compared to ATDs. The authors stated that there were no major adverse effects of methimazole during follow up and concluded that long term ATD therapy was safe and effective for the treatment of Graves' disease

**WHAT ARE THE IMPLICATIONS OF THIS STUDY?**

Chronic low dose ATD may be a viable treatment option for patients in whom Graves' disease relapses after initial ATD therapy. Treatment with long term low dose methimazole appears to be an effective and safe method for controlling hyperthyroidism due to Graves' disease. Patients treated with methimazole were more likely to have normal thyroid function than those treated with RAI. Further, chronic methimazole therapy may be preferred in patients with Graves' eye disease.

— Whitney Woodmansee MD

**ATA THYROID BROCHURE LINKS**

Hyperthyroidism: <http://www.thyroid.org/hyperthyroidism/>

**ABBREVIATIONS & DEFINITIONS**

**Hyperthyroidism:** a condition where the thyroid gland is overactive and produces too much thyroid hormone. Hyperthyroidism may be treated with antithyroid meds (Methimazole, Propylthiouracil), radioactive iodine or surgery.

**Graves' disease:** the most common cause of hyperthyroidism in the United States. It is caused by antibodies that attack the thyroid and turn it on.

**Radioactive iodine (RAI):** this plays a valuable role in diagnosing and treating thyroid problems since it is taken up only by the thyroid gland. I-131 is the destructive form used to destroy thyroid tissue in the treatment of thyroid cancer and with an overactive thyroid. I-123 is the non-destructive form that does not damage the thyroid and is used in scans to take pictures of the thyroid (Thyroid Scan) or to take pictures of the whole body to look for thyroid cancer (Whole Body Scan).





**GRAVES' DISEASE**, continued

**Methimazole**: an antithyroid medication that blocks the thyroid from making thyroid hormone. Methimazole is used to treat hyperthyroidism, especially when it is caused by Graves' disease.



## THYROID NODULES

# Laser ablation therapy is effective for shrinking benign thyroid nodules but has significant complications

### BACKGROUND

Thyroid nodules are the most common endocrine disorder. Nodules are evaluated for thyroid cancer with a biopsy and those containing cancer or suspicious for cancer are removed by surgery. Benign nodules are usually not removed unless they grow over time or cause symptoms such as difficulty swallowing or choking. Laser ablation therapy for benign thyroid nodules is a relatively new, non-surgical procedure. The method has been used previously for treatment of thyroid cysts and for the destruction of lymph nodes with thyroid cancer. This study aimed to determine if laser ablation for benign thyroid nodules was effective, well tolerated and if complications occurred.

### THE FULL ARTICLE TITLE:

Pacella CM et al Outcomes and risk factors for complications of laser ablation for thyroid nodules. a multicenter study on 1531 patients. *J Clin Endocrinol Metab.* August 14, 2015 [Epub ahead of print].

### SUMMARY OF THE STUDY

Researchers reviewed the records of patients at 8 Italian referral centers who had this procedure from January 2004 to December 2013. The laser ablation therapy was performed by endocrinologists, interventional radiologists, or a surgeon, depending on the center. All institutions had at least 2 years of experience with laser ablation and did more than 20 procedures per year.

A needle was inserted into the target thyroid nodule under ultrasound guidance. Laser treatments were performed through the needle and the amount of energy delivered was based on the size of the nodule. Patients were evaluated immediately after the procedure, one month after the procedure and again at 12 months. Symptoms were evaluated by using a questionnaire. The nodule was evaluated by inspection. If patients had voice changes, they underwent fiberoptic laryngoscopy to see the vocal cords.

The study included 1531 patients who underwent laser ablation for 1534 nodules. A total of 83% of the nodules

were treated with a single session of laser ablation, 13% required two sessions and 3% required 3 sessions. The average reduction in nodule volume at 12 months was 72%. There were no changes in thyroid function at 12 months. Local symptoms attributed to the nodules generally improved, as did the cosmetic appearance.

There were 17 complications, 8 major and 9 minor; none were life-threatening. A total of 8 patients had voice changes immediately after the session and laryngoscopy showed the vocal-cords not working correctly. All were treated with steroids and recovered completely. The minor complications included bruising and skin burns. About 30% of patients experienced pain, often radiating to the jaw or shoulder that disappeared when the laser was turned off. Persistent moderate or severe pain was reported in about 2%; this disappeared within 3 days. A total of 12 patients (0.7%) fainted and 141 patients (3.3%) had fever that lasted up to 3 days.

According to this study, laser ablation therapy of benign nodules is effective, reproducible, and generally well tolerated and has a low risk of major complications.

### WHAT ARE THE IMPLICATIONS OF THIS STUDY?

This is an interesting technique that is not widely used in the United States. It is important that the centers reporting their data all had at least 2 years of experience with the procedure, which probably contributed to the low number of complications reported. The major complication was temporary vocal-cord paralysis in almost 1% of patients. Also 1 in 3 patients experienced pain with the procedure. Depending on the cost associated with the technique and whether it is easy for physicians to perform, this could potentially become a more common treatment option for benign thyroid nodules.

— Ronald B. Kuppersmith, MD, FACS

### ATA THYROID BROCHURE LINKS

Thyroid Nodules: <http://www.thyroid.org/thyroid-nodules/>



## THYROID NODULES, continued

### ABBREVIATIONS & DEFINITIONS

**Thyroid nodule:** an abnormal growth of thyroid cells that forms a lump within the thyroid. While most thyroid nodules are non-cancerous (Benign), ~5% are cancerous.

**Thyroid Ultrasound:** a common imaging test used to evaluate the structure of the thyroid gland. Ultrasound uses soundwaves to create a picture of the structure of the thyroid gland and accurately identify and characterize nodules within the thyroid. Ultrasound is also frequently used to guide the needle into a nodule during a thyroid nodule biopsy.

**Laser ablation therapy:** a procedure where laser treatments are performed through a needle inserted into a thyroid nodule.

**Fiberoptic laryngoscopy:** a procedure where a fiberoptic tube is inserted into the throat to see the vocal cords.



## ATA Alliance for Thyroid Patient Education

### GOAL

The goal of our organizations is to provide accurate and reliable information for patients about the diagnosis, evaluation and treatment of thyroid diseases.

We look forward to future collaborations and continuing to work together towards the improvement of thyroid education and resources for patients.

### WHO WE ARE (in alphabetical order)

- **American Thyroid Association**
- **Bite Me Cancer**
- **Graves' Disease and Thyroid Foundation**
- **Light of Life Foundation**
- **ThyCa: Thyroid Cancer Survivors' Association, Inc.**
- **Thyroid Cancer Canada**
- **Thyroid Federation International**

### AMERICAN THYROID ASSOCIATION

[www.thyroid.org](http://www.thyroid.org)

ATA Patient Resources: <http://www.thyroid.org/patients/>

Find a Thyroid Specialist: [www.thyroid.org](http://www.thyroid.org)

Phone (toll-free): 1-800-THYROID

e-mail: [thyroid@thyroid.org](mailto:thyroid@thyroid.org)

**ATA Mission:** The ATA leads in promoting thyroid health and understanding thyroid biology.

**ATA Vision:** The ATA is the leading organization focused on thyroid biology and the prevention and treatment of thyroid disorders through excellence and innovation in research, clinical care, education, and public health.

**ATA Values:** The ATA values scientific inquiry, clinical excellence, public service, education, collaboration, and collegiality.

To further our mission, vision and values the ATA sponsors "Friends of the ATA" online to advance the information provided to patients and the public such as this publication, *Clinical Thyroidology for the Public*. We welcome your support.

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ThyCa: Thyroid Cancer  
Survivors' Association, Inc.<sup>SM</sup>  
[www.thyca.org](http://www.thyca.org)







**ATA Alliance for Thyroid Patient Education**

Continued...

**BITE ME CANCER**

<http://www.bitemecancer.org>

Bite Me Cancer was formed as a nonprofit foundation in September, 2010, by Nikki Ferraro, who was 17-years old at the time. Nikki was diagnosed with a rare form of thyroid cancer in April 2010 when she was a junior at Chantilly HS in Virginia. Nikki was determined to lead a Relay for Life team just two weeks after her diagnosis. She named the team Bite Me Cancer and experienced immediate success. When Nikki decided to create a foundation a few months later, she wanted to continue the legacy of her team name and thus her foundation became the Bite Me Cancer Foundation.

e-mail: [info@bitemecancer.org](mailto:info@bitemecancer.org)

**GRAVES' DISEASE AND THYROID FOUNDATION**

[www.gdatf.org](http://www.gdatf.org)

Phone (toll-free): 1-877-NGDF-123 or 643-3123

e-mail: [Gravesdiseasefd@gmail.com](mailto:Gravesdiseasefd@gmail.com)

Founded in 1990, the Graves' Disease Foundation offers support and resources to Graves' disease patients, their families, and health care professionals. Their mission is to find the cause of and the cure for Graves' thyroid disease through research, to improve the quality of life for persons with Graves' disease and their caregivers and to educate persons with Graves' disease, their caregivers, healthcare professionals, and the general public about Graves' disease and its treatment. The web site features a monitored bulletin board.

**LIGHT OF LIFE FOUNDATION**

[www.checkyourneck.com](http://www.checkyourneck.com)

email: [info@checkyourneck.com](mailto:info@checkyourneck.com)

The Light of Life Foundation, founded in 1997, is a nonprofit organization that strives to improve the quality of life for thyroid cancer patients, educate the public and professionals about thyroid cancer, and promote research and development to improve thyroid cancer care.

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ThyCa: Thyroid Cancer  
Survivors' Association, Inc.<sup>SM</sup>  
[www.thyca.org](http://www.thyca.org)





**ATA Alliance for Thyroid Patient Education**

**Continued...**

**THYCA: THYROID CANCER SURVIVORS' ASSOCIATION, INC.**

[www.thyca.org](http://www.thyca.org)

Phone (toll-free): 877 588-7904

e-mail: [thyca@thyca.org](mailto:thyca@thyca.org)

ThyCa: Thyroid Cancer Survivors' Association, Inc., founded in 1995, is an international nonprofit organization, guided by a medical advisory council of renowned thyroid cancer specialists, offering support and information to thyroid cancer survivors, families, and health care professionals worldwide.

**THYROID CANCER CANADA**

[www.thyroidcancercanada.org](http://www.thyroidcancercanada.org)

Phone: 416-487-8267

Fax: 416-487-0601

e-mail: [info@thyroidcancercanada.org](mailto:info@thyroidcancercanada.org)

Thyroid Cancer Canada is a non-profit organization founded in 2000. The organization works towards creating an environment in which people who are dealing with thyroid cancer, especially the newly diagnosed, are met with support and information. Their goals & objectives include facilitating communication among thyroid cancer patients, providing credible information about the disease, providing emotional support, and assisting thyroid cancer patients with voicing their needs to health care professionals and those who are responsible for health care policy.

**THYROID FEDERATION INTERNATIONAL**

<http://www.thyroid-fed.org/>

e-mail: [tfi@thyroid-fed.org](mailto:tfi@thyroid-fed.org)

Thyroid Federation International (TFI) was established in Toronto in 1995. Thyroid Federation International aims to work for the benefit of those affected by thyroid disorders throughout the world by providing a network of patient support organizations.



AMERICAN  
THYROID  
ASSOCIATION  
FOUNDED 1923



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[www.thyca.org](http://www.thyca.org)

