



Novel Coronavirus (COVID-19) and the Thyroid

Frequently Asked Questions (FAQs)

Over the past days and weeks, the American Thyroid Association and its members have heard many important concerns raised by both patients and their providers about how the novel coronavirus (COVID-19) pandemic might impact people living with thyroid conditions. Here, we address the most frequently asked questions thus far.

HASHIMOTO'S THYROIDITIS AND HYPOTHYROIDISM

Are people with autoimmune thyroid disease, such as Hashimoto's thyroiditis or Graves' disease, at more risk for acquiring COVID-19 or having a more serious COVID-19 infection?

The U.S. Centers for Disease Control (CDC) advises that people who are immunocompromised are at higher-risk of severe illness from COVID-19. Immunocompromised people have a weaker immune system and have a harder time fighting infections. However, the immune system is complex, and having autoimmune thyroid disease does not mean that a person is immunocompromised or will be unable to fight off a viral infection.

Thus far, there is no indication that patients with autoimmune thyroid disease are at greater risk of getting COVID-19 or of being more severely affected should they acquire the COVID-19 infection.

Everyone should continue to practice the recommended hand hygiene and social distancing recommendations to avoid COVID-19 infection.

Are there any shortages of levothyroxine?

Levothyroxine is one of the most widely used medications in the United States, and there are many brand and generic types available.

At this time, there are no identified shortages of any types of these thyroid hormone replacement medications. However, in order to maintain social distancing and limit exposure to COVID-19, patients should consider obtaining a 90-day supply of prescriptions, or receiving their thyroid medications through a mail-order service instead of picking them up at the local pharmacy.

HYPERTHYROIDISM

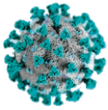
How do patients taking methimazole for hyperthyroidism tell the difference between a COVID-19 infection or side effects of methimazole?

Many patients with Graves' disease and other types of hyperthyroidism are treated with the medication known as methimazole (or a similar medication called propyl-

thiouracil [PTU]). A rare side effect of these antithyroid medications is a condition called agranulocytosis (occurring in 0.2-0.5% of people taking the medication), in which the number of the immune cells that fight infection decrease. Patients may have symptoms such as fever or sore throat. If these occur, patients are often told to stop the methimazole and go to a laboratory to have blood testing done.

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As fever and signs of illness can also overlap with the symptoms of COVID-19 infection, many patients who happen to also be taking methimazole may be concerned that they have become infected with COVID-19. Should they quarantine at home if they have some of these symptoms?

Because agranulocytosis with fever can represent a serious infection, the possibility should not be ignored. Agranulocytosis is less common in patients who have been taking methimazole for a long time or when the dose of the medication is low (e.g. 15 mg in one study), but it can still occur. If a fever or other symptoms of an infection start while taking methimazole, it is best to contact your endocrinologist or other provider to determine how best to be evaluated.

Patients should always seek medical attention for symptoms that seem urgent or life-threatening. Any patient with new fever, cough, or other typical symptoms of COVID-19 infection should seek medical attention immediately, regardless of methimazole use.

How can methimazole be given to patients with critical illness?

Methimazole is an oral medication, and stopping these medications can lead to worsening of hyperthyroidism. During a critical respiratory illness, especially when a

ventilator (breathing machine) is required, a patient may not be able to take medications by mouth. When treatment of hyperthyroidism is necessary, different routes for giving methimazole may be used. Providers taking care of patients with critical illnesses will be able to determine the best approach for making sure that a patient with hyperthyroidism continues to receive treatment as needed.

The placement of a naso-gastric tube or a Dobhoff tube allows the same methimazole pill to be delivered to the gut (digestive system) in a patient who is unable to swallow.

If the enteric route (through the stomach) is not available, these medications can be prepared for intravenous (IV) use:

- IV methimazole has been given by adding 500mg of methimazole powder to 0.9% sodium chloride solution to a final volume of 50mL and administering the correct dose as a slow IV push over 2 minutes.
- PTU is relatively insoluble. An IV formulation used in one report was made by dissolving tablets in isotonic saline with an alkaline pH (pH 9.25).

Enema or suppository formulations have also been used and require specific preparation.

THYROID NODULES AND THYROID CANCER

Is it safe to delay a biopsy of my thyroid nodule?

Most thyroid nodules are benign (not cancerous), but some nodules of a certain size that also have suspicious features on ultrasound may be advised to undergo a biopsy. Even if the thyroid nodule is found to be cancerous, there is usually little risk in delaying surgery to have it removed. Thus, it would also be generally safe to delay biopsy of the nodule unless your clinician strongly advises that it be done urgently.

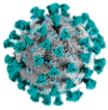
Are people with thyroid cancer at greater risk for COVID-19 infection because they are immunocompromised?

The U.S. Centers for Disease Control (CDC) generally states that people who are undergoing cancer treatment meet the definition of being immunocompromised.

However, unlike many other types of cancer, the majority of thyroid cancer patients are not receiving chemotherapy or other treatment that would deplete the immune system

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and cause them to be immunocompromised. Having a previous diagnosis of thyroid cancer and receiving thyroid hormone medication is not a known risk factor for getting COVID-19 or being more severely affected by it.

For the rare thyroid cancer patients who are receiving chemotherapy medications for your thyroid cancer treatment, you would be considered at higher risk for severe illness due to COVID-19.

To read more about people who are at higher risk:

https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-at-higher-risk.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fspecific-groups%2Fhigh-risk-complications.html

Is it safe to delay thyroid cancer surgery because of the current COVID-19 pandemic?

The most common initial treatment for thyroid cancer is surgery to remove the thyroid tumor. Because of the current COVID-19 pandemic, many surgeries that were scheduled for thyroid cancer have had to be delayed, raising concerns about receiving timely care for thyroid cancer.

While surgery is necessary, most thyroid cancers are very slow-growing tumors, and the chance of thyroid cancer worsening if surgery is delayed by several months is extremely low. This is true even if there is spread of the thyroid cancer to local lymph nodes in the neck.

However, thyroid surgery would be essential and should be performed more urgently for patients with symptoms

due to the size of the thyroid tumor, such as difficulty breathing or swallowing, cancers that are invading other parts of the neck, or if the biopsy showed aggressive forms of thyroid cancer, including anaplastic thyroid cancer and medullary thyroid cancer.

Is it safe to delay radioactive iodine treatment because of the current COVID-19 pandemic?

Radioactive iodine (RAI) therapy is often used for thyroid cancer patients after having surgery and typically involves several visits to a doctor or healthcare facilities. These treatments are frequently being rescheduled during the current COVID-19 pandemic, causing worry about these delays for patients scheduled to receive RAI.

RAI is often used to eliminate any remaining normal (non-cancerous) thyroid tissue or to decrease the chance of recurrence even when all thyroid cancer appears to have been surgically removed. Delays of six months or even longer do not appear to negatively affect the course of thyroid cancer in patients. Therefore, the short delays expected from waiting until the current COVID-19 pandemic is over are unlikely to lower the effectiveness of the RAI treatment.

In general, treatment with RAI is more urgent for patients who have papillary or follicular thyroid cancer who have distant metastases to the lungs or other body parts, particularly if growth of the metastases have been observed. Your health care provider will advise you when it is better to delay RAI treatment or when it is better to proceed with treatment despite the current pandemic.