

TerranearPMC Safety Share

Week of January 18, 2016

January is Thyroid Cancer Awareness Month

A number of years ago, I believe it was 2005, when fissile material was detected to be leaking from the Indian Point Power Plant, in New York State, causing contamination concerns to the Hudson River as well as the local communities. The thing that I remember most about this event was that nearby residents insisted on a community distribution of iodine pills, as the news – both local and national – was announcing that because radioactive iodine (I-131) was one of the contaminants, persons living near Indian Point were very susceptible to thyroid cancer. True, iodine, whether radioactive or stable forms, is known to be absorbed by the thyroid. Therefore taking iodine pills would then saturate the thyroid and thus stop absorption of radioactive iodine, which would then be eliminated without causing any biological effects. If memory serves me correctly, no government agency provided iodine to the public; yet many persons went to the local drug store and bought more than a lifetime supply as a precaution in the event that another leak would occur in the future. Meanwhile, fissile products by power plants involve a host of radioactive materials: not just iodine. Yet persons believed iodine pills was all they needed; kind of like carrying around a Cross or wearing garlic to protect oneself from vampires- I mean, just in case!

The thyroid gland is shaped like a butterfly and is located in the front of your neck. A gland is typically an organ that secretes materials into the body – no transporting duct. It makes hormones that regulate the way your body uses energy, thereby enabling your body to function normally. Thyroid cancer is an uncommon type of cancer. *Most* people who have it do very well, because the cancer is usually found early and the treatments work well. After it is treated, thyroid cancer may come back, sometimes many years after treatment. Experts don't know what causes thyroid cancer.

According to the National Cancer Institute, there are about 56,000 new cases of thyroid cancer in the US each year, and the majority of those diagnoses are papillary thyroid cancer—the most common type of thyroid cancer. Females are more likely to have thyroid cancer at a ratio of 3:1. Thyroid cancer can occur in any age group, although it is most common after age 30, and its aggressiveness increases significantly in older patients. Thyroid cancer does not always cause symptoms; often, the first sign of thyroid cancer is a thyroid nodule.

Some thyroid cancer signs and symptoms include a hoarse voice, neck pain, and enlarged lymph nodes. Although as much as 75% of the population will have thyroid nodules, the vast majority are benign. Young people usually don't have thyroid nodules, but as people age, they're more likely to develop a nodule. By the time we are 80, 90% of us will have at least one nodule.

Less than 1% of all thyroid nodules are malignant (cancerous). In younger patients, both papillary and follicular cancers (the most common types) have a more than 97% cure rate if treated appropriately. Both papillary and follicular thyroid cancers are typically treated with complete removal of the lobe of the thyroid that harbors the cancer, in addition to the removal of most or all of the other side.



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Medullary thyroid cancer is significantly less common but has a worse prognosis. Medullary cancers tend to spread to large numbers of lymph nodes very early on, and therefore require a much more aggressive operation than the more localized thyroid cancers, such as papillary and follicular thyroid cancer. This cancer requires complete thyroid removal plus a dissection to remove the lymph nodes of the front and sides of the neck.

The least common type of thyroid cancer is anaplastic thyroid cancer, which has a very poor prognosis. Anaplastic thyroid cancer tends to be found after it has spread, and it is incurable in most cases. These patients often require a tracheostomy during the treatment, and treatment is much more aggressive than for other types of thyroid cancer.

It is interesting to note that, radioactive iodine is given to patients with thyroid cancer after their cancer has been removed (which is contrary to what the New York residents were trying to avoid). If there are any normal thyroid cells or any remaining thyroid cancer cells in the patient's body (and any thyroid cancer cells retaining this ability to absorb iodine), then these cells will absorb and concentrate the radioactive "poisonous" iodine.

Thyroid cancer can cause several symptoms:

- You may get a lump or swelling in your neck. This is the most common symptom.
- You may have pain in your neck and sometimes in your ears.
- You may have trouble swallowing.
- You may have trouble breathing or have constant wheezing.
- Your voice may be hoarse.
- You may have a frequent cough that is not related to a cold.

If you have a lump in your neck that could be thyroid cancer, your doctor may do a biopsy of your thyroid gland to check for cancer cells. A biopsy is a simple procedure in which a small piece of the thyroid tissue is removed, usually with a needle, and then checked.

Sometimes the results of a biopsy are not clear. In this case, you may need surgery to remove all or part of your thyroid gland before you find out if you have thyroid cancer.

If you're diagnosed with thyroid cancer, your doctor will create a thyroid cancer treatment plan for you—one that may incorporate a combination of thyroid cancer treatments, such as radioactive iodine and thyroidectomy (removal of the thyroid gland by surgery). Persons that have had their thyroid removed (or have a thyroid that is not functioning) have the condition, *hypothyroidism* and requires thyroid hormone replacement treatment which most likely means that some form of prescription drug treatment (synthetic hormone replacement) will be necessary. While living without a thyroid can be challenging, I have found numerous websites where persons with hypothyroidism share their experiences and are able to support one another. All the input at these sites conveys incredible positive attitudes and upbeat conversations.

Faith is taking the first step even when you don't see the whole staircase - Martin Luther King, Jr.

