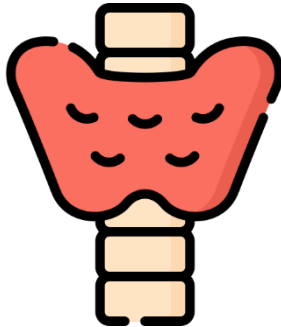




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Thyroid Tumors



What is the thyroid gland and what is its function?

It is one of the endocrine glands. It is located in the middle of the neck-front, below the cartilage of the thyroid gland (Adam's apple). It consists two lobes on both sides of the trachea, linked by a central part called (Isthmus). It weighs about 15 - 20 g. in normal adults' cases. The thyroid gland produces the thyroxin hormone, that regulates the body's metabolism rate, as it controls heart rate, blood pressure, body temperature and weight

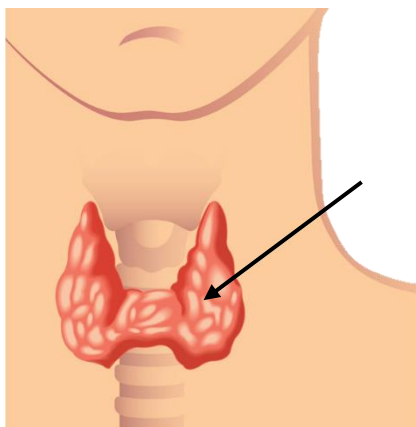
Thyroid

What are thyroid tumors and what are the possibilities to develop?

Thyroid nodes are tumors (lumps) located within the thyroid gland, and they might be mono-tumor or multi-tumors. They



are common and may affect 5-10% among females, and 1-5% from males. This ratio may reach 60% if the thyroid gland was examined by ultrasound for those over 60 years old but they almost are benign tumors.

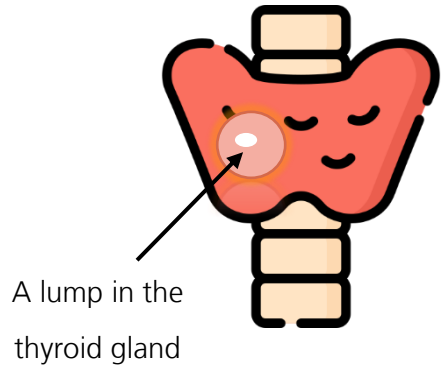


What are the types of thyroid tumors?

There two major types regardless function levels:

First Type: Benign tumor

Second Type: Malignant tumor

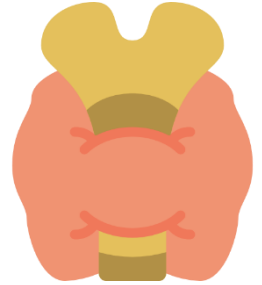


Note:

Thyroid tumors considered the second cancerous tumors that affect ladies in KSA according to national registration statistics

What are the symptoms of thyroid tumors?

- Swelling on the neck which might cause dysphagia and dyspnea for leading to a pressure the esophagus or the trachea respectively. Thyroid gland tumors grow relatively slowly.



- Voice changes such as persistent hoarseness or roughness in some Thyroid cancer cases



What are the symptoms of thyroid tumors?

- The spread of the cancerous tumor to the lymph nodes in the neck, and to a lesser extent, to the bones, lungs or brain.

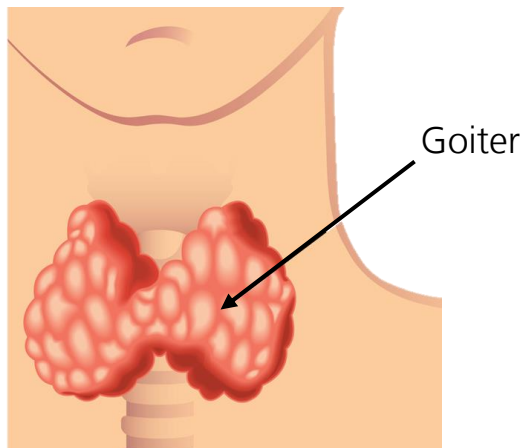


Note:

Some people may have no symptoms, and the tumor is discovered coincidentally, especially in the early stages, with both benign and malignant parts.

Is the goiter necessarily associated with thyroid dysfunction?

No, there may be a comprehensive or nodular enlargement of the thyroid gland, but it may perform its function normally, or it may be with hyperactivity or lethargy.



How to assess and diagnose thyroid tumors?

Thyroid tumors can be assessed through the following:

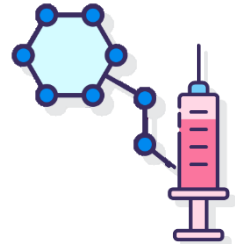
➤ Medical history



➤ Clinical examination



➤ Thyroid stimulation hormone **TSH**
level with or without thyroid
hormone **FREE T3** and **T4**

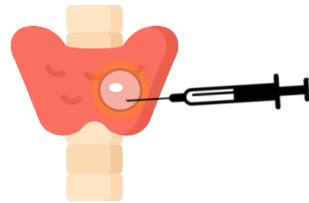


How to assess and diagnose thyroid tumors?

- Ultrasound to know the quality, size, and characteristics of nodal masses in the thyroid gland and to evaluate the adjacent lymph nodes



- Taking a sample by FNA, either with or without the ultrasound, for those suspected nodes to diagnose the nodes and know the type of cells and determine whether they are benign or malignant.

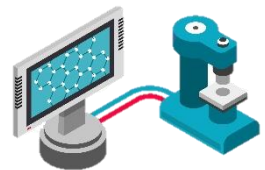


How to assess and diagnose thyroid tumors?

- CT scan for some cases



- Nuclear scanning for some cases



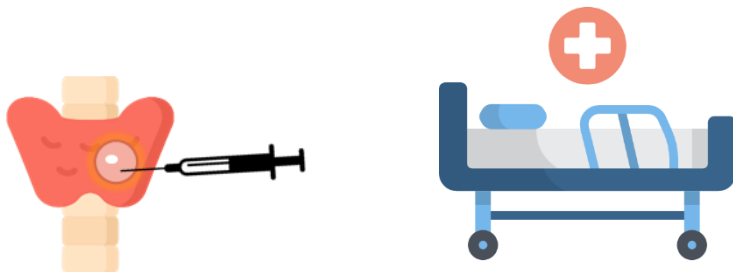
Note:

Sometimes it is difficult to know the type of the tumor before the surgical procedure.

What should I do if I have thyroid benign tumor?

There are different shapes of thyroid tumors such as: unilateral multi-nodal swelling, or massive enlargement ([goiter](#)). It functionally divided into active, normal, or inactive.

[Benign tumors](#) usually do not require surgical intervention except in specific cases, and it is enough to have periodic follow-up with clinical examination and sonography of the thyroid gland with analyzes of the thyroid hormone level if those lumps are small in size with the possibility of re-taking the sample by [FNA](#) again whenever the attending physician finds it necessary



What should I do if I have thyroid benign tumor?

If tumors are large in size or cause symptoms such as difficulty of breathing, swallowing, or hyperactivity, then they cannot be treated with medications, so surgical intervention is required to remove the tumors and the thyroid hormone is compensated by 100% if the removal of the entire thyroid gland or partial compensation in case one lobe of the thyroid gland was removed



Sources and references

All pictures used are from

<https://www.diagnosisdiet.com/full-article/foods-that-cause-flaticon.com> and hypothyroidism

Review and audit:

The content of this booklet has been reviewed by consultants of the General Surgery department at King Fahad University Hospital

Health Awareness Unit

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