



# Thyroid functions

**What are the commonest conditions that can affect the thyroid gland?**

Under activity (Hypothyroidism) or over activity (Hyperthyroidism)

**Which tests can be used to diagnose the abovementioned conditions?**

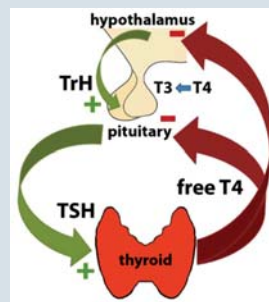
When your doctor requests a thyroid function test to confirm or exclude one of the abovementioned conditions, a free T4 and a (TSH) thyroid stimulating hormone are usually performed by the laboratory.

TSH is produced by the hypophysis (or pituitary gland) in the brain and stimulates the thyroid to secrete the thyroid hormones (T3 and T4).

A primary overactive thyroid gland (primary hyperthyroidism) is diagnosed when during an investigation an increased free T4 (fT4) is found in combination with a reduced or suppressed TSH.

A primary underactive thyroid (primary hypothyroidism) is usually diagnosed when during an investigation a reduced free T4 (fT4) and an increased TSH is found.

Secondary causes (impairment of the hypophysis itself, rather than the thyroid gland) can also occur, but are less common than primary causes (impairment of the thyroid gland).



**Which therapy is usually prescribed for the treatment of hyperthyroidism?**

In cases with a diagnosis of hypothyroidism, the patient is usually placed on thyroid replacement therapy. This therapy will in most cases consist of Eltroxin® (T4) or Diotroxin® (T3 and T4 in combination).

**What important information should I, as a patient, be aware of if I receive thyroid replacement therapy?**

The following is of utmost importance in patients that are followed up by their doctor after commencing thyroid replacement therapy:

- It is important to inform the staff at the PathCare depot which of these medications and at which specific dosages you are taking.
- If you are referred to the laboratory for a thyroid function blood test the dosage for that specific day must be taken AFTER your blood has been drawn to prevent influences of the medication on the results which could complicate interpretation of the results by your doctor

**Why is it important for me to take my medication as prescribed?**

It is of utmost importance to take thyroid replacement therapy strictly as prescribed for the following reasons:

- The level of TSH is used by your doctor determine whether the thyroid replacement therapy is effective or not.
- If you do not take the dosage regularly on a daily basis, it could appear that your dosage is too low which could force your doctor to adapt the dosage.
- If your dosage as prescribed was sufficient but you did not take it strictly as prescribed, a change in the dosage could result that you are placed on a dosage which is not ideal for your specific clinical situation.
- Suboptimal dosing could result in you experiencing the symptoms of an overactive or underactive thyroid gland.

It simplifies your doctor's task significantly to adapt your dosage and therefore to determine the ideal replacement therapy and dosage for your specific clinical situation when your medication is taken regularly as prescribed.

**What are the symptoms of an underactive thyroid gland?**

- Fatigue
- Apathy
- Weight gain
- Hair loss
- Cold intolerance

**What are the symptoms of an overactive thyroid gland?**

- Hot flushes
- Increased heart rate
- Heat intolerance
- Weight loss



# Tiroïedfunksies

## Wat is die algemeenste toestande wat die skildklier kan aantast?

Onderaktiwiteit (hipotireose) of ooraktiwiteit (hipertireose).

## Watter toetse kan gedoen word om bogenoemde toestande te diagnoseer?

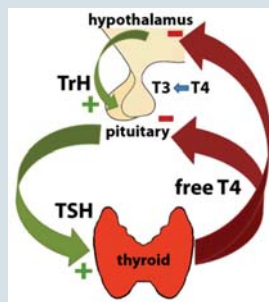
Wanneer u dokter 'n tiroïedfunksietoets aanvra om een van bogenoemde toestande te bevestig of uit te skakel, word 'n vry T4 en (TSH) Tiroïedstimulerende hormoon gewoonlik deur die laboratorium gedoen.

(TSH) word deur die hipofise (of pituitêre klier) in die brein geproduseer en stimuleer die tiroïed om die tiroïedhormone (T3 en T4) af te skei.

'n Primêr ooraktiewe skildklier (primêre hipertireose) word gediagnoseer wanneer 'n verhoogde vry T4 (vT4) in kombinasie met 'n verlaagde of onderdrukte TSH tydens ondersoek gevind word.

'n Primêr onderaktiewe skildklier (primêre hipotireose) word gewoonlik gediagnoseer wanneer 'n verlaagde vry T4 (vT4) en 'n verhoogde TSH tydens ondersoek gevind word.

Sekondêre oorsake (aantasting van die hipofise self, eerder as in die skildklier) kan ook voorkom, maar is minder algemeen as primêre oorsake (aantasting van die tiroïedklier).



## Watter terapie word gewoonlik vir die behandeling van hipotireose voorgeskryf?

In gevalle waar hipotireose gediagnoseer word, word die pasiënt gewoonlik met tiroïedvervangings terapie behandel. Hierdie terapie sal in die meeste gevalle Eltroxin® (T4) of Diotroxin® (T3 en T4 in kombinasie) behels.

## Is daar enige belangrike inligting waarvan ek as pasiënt bewus moet wees as ek tiroïedvervangings terapie ontvang?

Die volgende is van die uiterste belang in pasiënte wat deur hulle dokter opgevolg word nadat hulle met tiroïedvervangings terapie begin het:

- Dit is belangrik om die personeel by die PathCare-depot in te lig watter van hierdie middels en watter spesifieke dosering daarvan deur u geneem word.
- As u vir 'n tiroïedfunksiebloedtoets na die laboratorium verwys word, moet daardie spesifieke dag se dosering geneem word NADAT die bloed getrek is, om te verhoed dat die middel 'n invloed op die resultate het wat interpretasie van die resultate deur u dokter kan bemoeilik.

## Hoekom is dit belangrik vir my om my medikasie soos voorgeskryf te neem?

Dit is van uiterste belang om streng volgens die voorgeskryfde dosis die tiroïed-vervangings terapie te neem vir die volgende redes:

- Die TSH-vlak word deur u dokter gebruik om te bepaal of die tiroïed-vervangings terapie effektief is of nie.
- Indien u nie die dosis op 'n daaglikse basis gereeld neem nie, kan dit voorkom asof die dosering wat vir u voorgeskryf is dalk te laag is wat u dokter kan noodsaak om die dosis aan te pas.
- Indien die dosering voldoende was soos voorgeskryf maar u as pasiënt nie die dosering streng volgens voorskrif geneem het nie, kan 'n aanpassing van die dosering veroorsaak dat u 'n dosis aanbeveel word wat nie ideaal vir u spesifieke kliniese situasie is nie.
- Suboptimale dosering kan daartoe lei dat u die simptome van 'n ooraktiewe of onderaktiewe skildklier ervaar.

Dit vergemaklik u dokter se taak aansienlik om doseringsaanpassings te maak en sodoende die ideale vervangings terapie en -dosering vir u spesifieke kliniese situasie te bepaal indien die middel deur u as pasiënt absoluut gereeld volgens voorskrif geneem word.

## Wat is die simptome van 'n onderaktiewe skildklier?

- Moegheid
- Lusteloosheid
- Gewigstoename
- Haarverlies
- Koue-onverdraagsaamheid

## Wat is die simptome van 'n ooraktiewe skildklier?

- Warmgloede
- Vinnige polsspoed
- Hitte-onverdraagsaamheid
- Gewigsverlies