

Thyroid disease overview

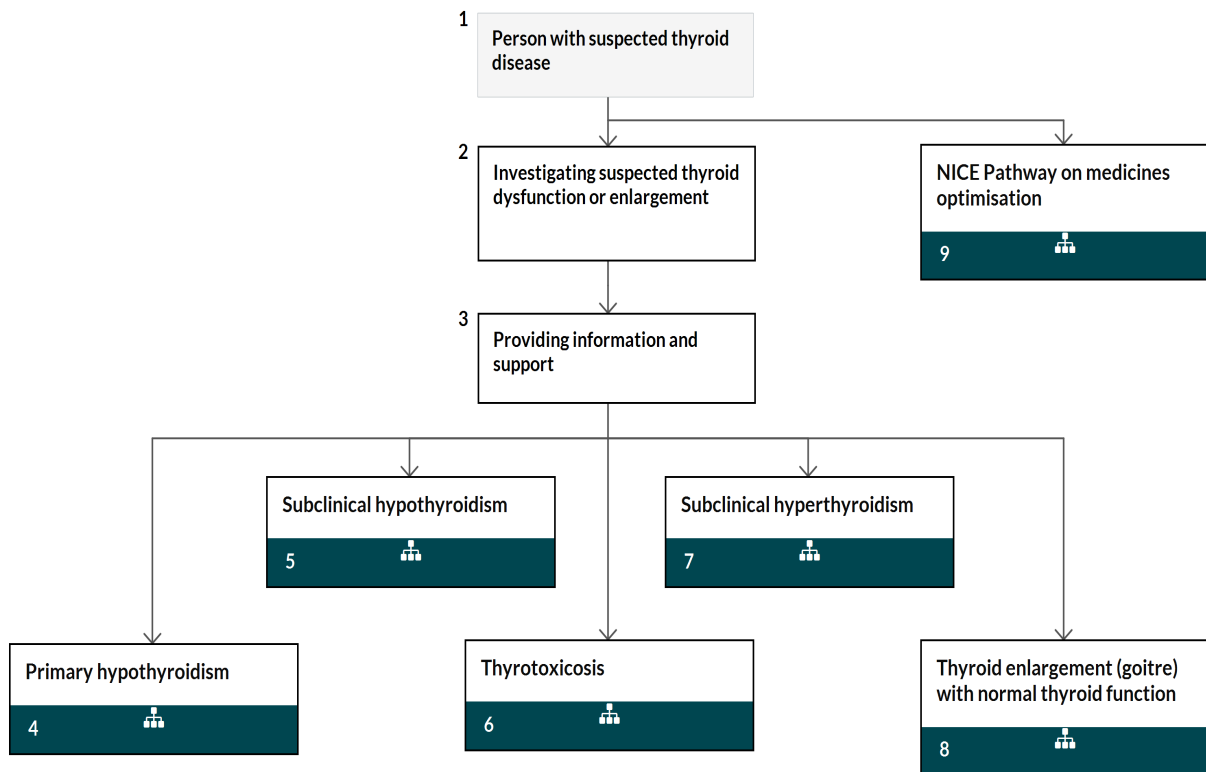
NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

<http://pathways.nice.org.uk/pathways/thyroid-disease>

NICE Pathway last updated: 19 November 2019

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Person with suspected thyroid disease

No additional information

2 Investigating suspected thyroid dysfunction or enlargement

Consider tests for thyroid dysfunction for adults, children and young people if there is a clinical suspicion of thyroid disease, but bear in mind that 1 symptom alone may not be indicative of thyroid disease.

Offer tests for thyroid dysfunction to adults, children and young people with:

- type 1 diabetes or other autoimmune diseases, **or**
- new-onset atrial fibrillation.

Consider tests for thyroid dysfunction for adults, children and young people with depression or unexplained anxiety.

Consider tests for thyroid dysfunction in children and young people with abnormal growth, or unexplained change in behaviour or school performance.

Be aware that in menopausal women symptoms of thyroid dysfunction may be mistaken for menopause.

Do not test for thyroid dysfunction during an acute illness unless you suspect the acute illness is due to thyroid dysfunction, because the acute illness may affect the test results.

Do not offer testing for thyroid dysfunction solely because an adult, child or young person has type 2 diabetes.

See the NICE guideline to find out [why we made these recommendations and how they might affect practice](#).

NICE has published clinical knowledge summaries on:

- [hyperthyroidism](#)
- [hypothyroidism](#).

These practical resources are for primary care professionals (they are not formal NICE

guidance).

Tests when thyroid dysfunction is suspected

Consider measuring TSH alone for adults when secondary thyroid dysfunction (pituitary disease) is not suspected. Then:

- If the TSH is above the reference range, measure FT4 in the same sample.
- If the TSH is below the reference range, measure FT4 and FT3 in the same sample.

Consider measuring both TSH and FT4 for:

- adults when secondary thyroid dysfunction (pituitary disease) is suspected
- children and young people.

If the TSH is below the reference range, measure FT3 in the same sample.

Consider repeating the tests for thyroid dysfunction in the recommendations above if symptoms worsen or new symptoms develop (but no sooner than 6 weeks from the most recent test).

See the NICE guideline to find out [why we made these recommendations and how they might affect practice](#).

3 Providing information and support

Ensure that information is presented to facilitate shared decision making, as recommended in [the NICE Pathway on patient experience in adult NHS services](#).

Explain to people with thyroid disease who need treatment, and their family or carers if appropriate, that:

- Thyroid disease usually responds well to treatment.
- The goal of treatment is to alleviate symptoms and align thyroid function tests within or close to the reference range.
- People may feel well even when their thyroid function tests are outside the reference range.
- Even when there are no symptoms, treatment may be advised to reduce the risk of long-term complications.
- Even when thyroid function tests are within the reference range, changes to treatment may improve symptoms for some people.
- Symptoms may lag behind treatment changes for several weeks to months.

- Day-to-day changes in unexplained symptoms are unlikely to be due to underlying thyroid disease because the body has a large reservoir of thyroxine.

Provide people with thyroid disease, and their family or carers if appropriate, with written and verbal information on:

- their underlying condition, including the role and function of the thyroid gland and what the thyroid function tests mean
- risks of over- and under-treatment
- their medicines
- need for and frequency of monitoring
- when to seek advice from a healthcare professional
- how thyroid disease and medicines may affect pregnancy and fertility.

See the recommendations on testing for coeliac disease in people with a diagnosis of autoimmune thyroid disease in [the NICE Pathway on coeliac disease](#).

NICE has written information for the public on [thyroid disease](#).

Rationale and impact

See the NICE guideline to find out [why we made these recommendations and how they might affect practice](#).

4 Primary hypothyroidism

[See Thyroid disease / Primary hypothyroidism](#)

5 Subclinical hypothyroidism

[See Thyroid disease / Subclinical hypothyroidism](#)

6 Thyrotoxicosis

[See Thyroid disease / Thyrotoxicosis](#)

7 Subclinical hyperthyroidism

[See Thyroid disease / Subclinical hyperthyroidism](#)

8 Thyroid enlargement (goitre) with normal thyroid function

[See Thyroid disease / Thyroid enlargement \(goitre\) with normal thyroid function](#)

9 NICE Pathway on medicines optimisation

[See Medicines optimisation](#)

Glossary

adults

(people aged 16 years and over)

cascading

(measuring FT4 in the same sample if TSH is above the reference range and measuring FT4 and FT3 in the same sample if TSH is below the reference range)

children and young people

(people under 16 years)

FT3

free tri-iodothyronine

FT4

free thyroxine

hyperthyroidism

(excess production and/or secretion of thyroid hormones [overactive thyroid gland])

hypothyroidism

(inadequate production and secretion of thyroid hormones [underactive thyroid gland])

menopausal women

(this includes women in perimenopause and postmenopause)

subclinical hyperthyroidism

(TSH levels below the reference range, with FT3 and FT4 within the reference range)

subclinical hypothyroidism

(TSH levels above the reference range, with FT4 within the reference range)

thyrotoxicosis

(a disorder of excess circulating thyroid hormones caused by increased production and secretion [hyperthyroidism] or by the release of stored thyroid hormones [thyroiditis])

TPOAbs

thyroid peroxidase antibodies

TRAbs

TSH receptor antibodies

TSH

thyroid-stimulating hormone

young people

(people under 16 years)

Sources

[Thyroid disease: assessment and management \(2019\) NICE guideline NG145](#)

Your responsibility**Guidelines**

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not

mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.