

KISS: Subclinical Hypothyroidism (SCH) in Adults

References - [BMJ2019;365;l2006](#) [JAMA2018;320;1349](#) [NICE NG 145](#)

Background:

- Definition: a raised TSH but normal free thyroxine levels.
- Occurs in up to 20% of the population & in many cases is transient.
- TSH levels vary with stress, transient disease and age with TSH increases in older adults normally.
- 2%-5% progress to overt hypothyroidism annually (more likely if thyroid peroxidase (TPO) antibodies are positive, or in those with higher TSH levels >20mIU/L).

Management:

- Confirm SCH in adults <65: Repeat TSH, FT4 and check TPO antibodies in 3 months.
- Check if the person is taking biotin supplements - this can give falsely high, or low blood thyroid readings.
- **NICE recommends the following:**
 - Consider levothyroxine for adults with SCH and TSH \geq 10mIU/L.
 - Consider a 6-month trial of levothyroxine for adults < 65 years old with SCH and TSH < 10mIU/L AND symptoms of hypothyroidism BUT if **symptoms persist when TSH normalises consider stopping the levothyroxine.**
 - When considering treatment take into account factors associated with an increased risk of progressing to overt hypothyroidism i.e. raised TPO antibodies, previous thyroid surgery or radioactive iodine.
- However, be aware that based on new research [JAMA2018;320;1349](#), there is a new **STRONG guideline recommendation [BMJ2019;365;l2006](#) NOT to offer thyroxine treatment to adults with SCH even if they are symptomatic** - evidence most strong for adults >65:
 - **This recommendation does NOT apply to the following groups:** Pregnancy, planning pregnancy or risk of unplanned pregnancy (see separate chapter Thyroid, pregnancy and fertility), patients with very severe symptoms, a TSH > 20mIU/L or young adults aged under 30.

Monitoring:

- **NICE recommends the following:**
 - Measure TSH/FT4 yearly if raised TPO antibodies or previous thyroid surgery/radioactive iodine.
 - Measure TSH/FT4 every 2-3 years for all other adults.
- However, be aware **NIHR recommendation** that in **healthy adults aged over 65, repeat thyroid testing is not needed** unless patients have risk factors for, or develop signs or symptoms of overt hypothyroidism [BMJ2019;364;1804](#).