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Screening for thyroid disorders in the elderly – a joint statement from the British Thyroid Association and the British Thyroid Foundation

There has been discussion in the media about the value of population screening for thyroid disorders in the elderly. See <http://www.bbc.co.uk/news/health-12252813>.

In a joint statement the British Thyroid Association and the British Thyroid Foundation say:

The question of whether healthy adults living in the UK would benefit from screening for thyroid disease is controversial. To be effective, the benefit from a screening programme must outweigh the harm, both physical and psychological, caused by the test, diagnostic procedures and treatment. This was addressed in the UK national guidelines on testing thyroid function published in 2006 [1]. It is rare to find unsuspected overt (full-blown) thyroid disease because most people go to their doctor with symptoms, but a substantial proportion of people tested will have evidence of mild thyroid dysfunction, with approximately ten per cent with subclinical hypothyroidism and one per cent with subclinical hyperthyroidism. There has not yet been an appropriately powered prospective, randomised, controlled, double-blinded interventional trial of either levothyroxine therapy for subclinical hypothyroidism or antithyroid therapy for subclinical hyperthyroidism in people identified through a screening programme [2].

In subclinical hypothyroidism, there is still debate as to what constitutes a normal Thyroid Stimulating Hormone (TSH) level, particularly in older people, since the reference range probably rises with healthy ageing. Although some people will progress to have overt hypothyroidism, recent study results suggest that a significant proportion of people with mild thyroid dysfunction revert to normal without treatment. Recent meta-analyses have suggested that there is an increased risk of heart problems in younger adults and in those with a TSH level above 10 mU/L in their blood, but not in those with evidence of milder thyroid failure and a TSH level below 5 mU/L [3].

If a patient has been identified through a screening programme and does not have symptoms, then it is reasonable to be cautious before recommending levothyroxine therapy, especially in those with only a slightly raised TSH level. People identified by positive screening tests do not always take their tablets regularly, particularly if their symptoms do not change or if they suffer from side effects. Treatment does appear to be justified in those who are symptomatic, pregnant or wishing to have children, aged 65 years or older, or who have evidence of heart failure [4]. However, for the vast majority of patients, adopting a 'wait and see' policy rather than intervention may avoid unnecessary treatment or the potential for harm.

Janis Hickey, BTF Director, added: 'Low levels of thyroid hormone result in a slowing down of mental and physical processes of the whole body. We encourage anyone who has symptoms such as general tiredness, feeling cold, a dry and coarse skin, dry and thinning hair, a hoarse or croaky voice, constipation, muscle weakness, weight gain, depression, memory problems, concentration difficulties, or a slow heartbeat, to consult their doctor.'

References

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2. Surks MI, Ortiz E, Daniels GH et al. Subclinical thyroid disease: scientific review and guidelines for diagnosis and management. *JAMA* 2004; 291: 228-238.
3. Rodondi N, den Elzen WP, Bauer DC et al. [Subclinical hypothyroidism and the risk of coronary heart disease and mortality](#). *JAMA* 2010; 304: 1365-74
4. Vanderpump MPJ. How should we manage patients with a raised serum thyrotrophin concentration? *Clin Endocrinol (Oxf)* 2010; 72: 436-440