***Bad medicine: thyroid disease***

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Our sense of wellness is one of nature’s greatest gifts to humanity. A recent review has confirmed huge overdiagnosis of breast cancer through screening. So, over the past 20 years 80 000 women in the UK (equivalent to every person eligible for screening in Edinburgh) have been falsely diagnosed with cancer, enduring surgery and chemotherapy.[1](http://www.bmj.com/content/345/bmj.e7596#ref-1) This is the theft of wellness on the grandest of scales. Overdiagnosis is everywhere,[2](http://www.bmj.com/content/345/bmj.e7596%22%20%5Cl%20%22ref-2) and a problem still hugely underappreciated.[⇑](http://www.bmj.com/content/345/bmj.e7596#F1)

Are we overdiagnosing thyroid disease? Subclinical hypothyroidism is where thyroid hormone is normal, but the thyroid stimulating hormone is mildly raised. This is common, found in as many as 10% of the general population.[3](http://www.bmj.com/content/345/bmj.e7596#ref-3) In the past we tended to reassure, to suggest repeating tests, with the results often reverting to normal. This was not hypothyroidism, ran the logic, but natural variation, and did not need thyroid replacement.

But in recent years UK specialists have suggested the treatment of subclinical hypothyroidism in patients only with clear symptoms. In the United States they go further: the endocrinologists’ and thyroidologists’ consensus statement “favors routine screening” and “early detection and early treatment,”[3](http://www.bmj.com/content/345/bmj.e7596#ref-3) with some even suggested lowering the current threshold for diagnosis.[4](http://www.bmj.com/content/345/bmj.e7596#ref-4) I fear these expert opinion statements because they always have a whiff of conflict of interest.

The problem is that thyroid symptoms are non-specific; indeed, the very fact that we are carrying out thyroid function tests suggests patients have symptoms. Also, hypothyroidism is a disease that patients understand and can hang a lot of life’s problems on. Patients can therefore pressure doctors for treatment, and doctors can fear legal claims for failure to treat. A trial of treatment, therefore, is offered but, once started, thyroxine is almost impossible to stop. I now see many young women who will be taking drugs lifelong. But the thyroid has a sensitive and complex feedback system that has evolved over millennia for a purpose. What effect does crude medical replacement have over decades?

The epidemiology is poorly studied, but evidence suggests that subclinical hypothyroidism spontaneously corrects in 80% of patients in two years.[5](http://www.bmj.com/content/345/bmj.e7596#ref-5) Also, systematic reviews show no evidence of benefit from treatment with thyroxine (perhaps other than in pregnancy).[6](http://www.bmj.com/content/345/bmj.e7596#ref-6) [7](http://www.bmj.com/content/345/bmj.e7596#ref-7) Despite this, thyroxine prescribing has doubled in the past decade, which cannot reflect a true rise in incidence of hypothyrodism.[8](http://www.bmj.com/content/345/bmj.e7596#ref-8) [9](http://www.bmj.com/content/345/bmj.e7596#ref-9) The only conclusion is that we are overdiagnosing and overtreating thyroid disease. Again, through overdiagnosis, doctors are systematically failing in our duty to protect the well, which is the worst medicine of all.

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**Footnotes**

* Provenance and peer review: Commissioned; externally peer reviewed.
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