

# Young people and thyroid dysfunction

The thyroid is a butterfly-shaped gland that sits at the base of the neck, in front of the windpipe. It is the 'master controller' of metabolism<sup>1</sup>, so if a thyroid problem develops in childhood it can affect physical and mental growth, impacting on a child's social and educational development. It is especially important for parents to understand the signs, symptoms and treatments of thyroid dysfunction to avoid long-term issues for their children.<sup>2</sup>

## What are thyroid dysfunctions?

If your child's thyroid is underactive it produces too little thyroid hormone, resulting in a condition called **hypothyroidism**. People with hypothyroidism use energy more slowly and their metabolism also slows down.<sup>3</sup> However, if your child's thyroid is overactive the gland releases too much thyroid hormone into the bloodstream. This results in a condition called **hyperthyroidism**, which speeds up the metabolism.<sup>4</sup> Hypothyroidism is more common than hyperthyroidism in both children and adults.



## Hypothyroidism in the young

Children can be born without a properly working thyroid gland (congenital hypothyroidism) or develop this dysfunction in the same way as adults can: too little iodine in their diet (iodine rich foods include seafood/seafood, lamb, eggs, and products with iodized salt<sup>5</sup>),

an autoimmune disease (such as type 1 diabetes), or injury to their thyroid gland.

The signs of hypothyroidism in children depend on how old they are and when the problem starts.



- Babies may have jaundice for longer than usual, seem tired all the time/fatigued, be constipated and have feeding problems<sup>2</sup>
- In older children growth of bones and teeth may be stunted<sup>2</sup>
- In school children learning problems may occur and puberty can be delayed<sup>6</sup>
- Hypothyroidism in older female teenagers can lead to frequent, heavy menstruation which can cause anaemia (abnormally low levels of healthy red blood cells)<sup>7</sup>

Blood tests and an x-ray of the hand and wrist (knee in infants) are used to check if a child has hypothyroidism and how severe the condition is. The x-ray establishes how the child is growing and if the so-called bone age is delayed.

The aim of treatment is to replace the missing thyroid hormone in the body. As with adults, levothyroxine, a synthetically produced thyroid hormone is recommended, but the dose will be tailored to match the weight and individual need of the child.<sup>2</sup>

### **Hyperthyroidism in the young**

Graves' disease (a disease of the immune system) is responsible for nearly all the cases of hyperthyroidism in children. Thankfully it is a very rare condition in this age group, affecting only one in 10,000,000 children.<sup>2</sup> Graves' disease tends to be much more common in teenagers and like all thyroid dysfunctions, affects more girls than boys.<sup>2</sup>

Spotting Graves' disease in children can be difficult because it often develops slowly, however changes in behaviour and school performance, sleeplessness, restlessness / irritability and needing to get up in the night to urinate are common signs to look for.<sup>2</sup> Other symptoms include a thyroid that is so large it is visible, trembling hands, increased appetite but with weight loss, diarrhoea and the classic prominent staring eyes.<sup>2</sup> Girls who develop hyperthyroidism after puberty often have light, infrequent periods or may stop bleeding altogether.<sup>2</sup>

Treatment for children with hyperthyroidism aims to reduce the thyroid hormones within the blood. Surgery may be preferred in children who have side

effects to the antithyroid medications available.<sup>2</sup> Unlike adults, radioactive iodine therapy is unlikely to be used because the long-term effects on children and teens are not known. Parents will be relieved to hear that treatment is as effective in children as it is in adults.

Children diagnosed with thyroid dysfunction will need the support of their families to ensure they take the medication every day and manage their problems. It is also helpful to let the school know your child's diagnosis and medication so they are fully informed.

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### **For further information**

If you would like any further information on thyroid dysfunction, please visit the following websites: [www.thyroidweek.com](http://www.thyroidweek.com)

[www.thyroid-fed.org](http://www.thyroid-fed.org)

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