

## *Thyroglossal Duct Tract Anomalies*

### **What is a thyroglossal cyst?**

In the neck a butterfly-shaped gland called the thyroid gland makes important thyroid hormones. During foetal development the thyroid gland makes a journey from the back of the tongue, where it forms, down into the neck. As it descends, it leaves behind a small tube called the thyroglossal tract which passes from the back of the tongue to the resting place of the thyroid gland in the neck. Normally the thyroglossal tract disappears by the time we are born but occasionally parts of it persist and have a tendency to form cysts in and around the midline of the neck. A thyroglossal duct cyst arises as a cystic expansion of a remnant of the thyroglossal duct tract. Thyroglossal duct cysts are the most common form of congenital cyst in the neck.

### **How do they present?**

Often there is nothing visible at birth, although the cyst is there but very small. During the first few years of life a cyst appears under the chin in the middle of the neck or just to one side. This may follow a cold or infection.

### **What problems can they cause?**

Unfortunately they have a tendency to get infected and may form an abscess which needs to be drained surgically. It is very rare for them to change and become malignant, although over one hundred cases of cancer developing in thyroglossal cysts have been reported in the medical literature.

### **How should they be treated?**

In view of the tendency to get infected and the very small risk of malignant change it is usually recommended that they are removed, which means an operation. One overnight stay is usually required after surgery with a drain in the neck overnight.

### **Is it a simple operation and can the cyst recur?**

It is very important that as well as removing the cyst all remnants of the thyroglossal tract are removed; if this is not done then the cyst may well come back. This problem was recognized in 1926 by a surgeon called Sistrunk who recommended that as well as the cyst a central portion of the underlying hyoid bone and the adjacent muscle leading up into the tongue needs to be removed to prevent the cyst recurring. Sistrunk's operation forms the basis of the modern operation as described by Dr Forte in Toronto with a recurrence rate down to 1% or less.



### **What are the potential complications?**

Fortunately complications are very uncommon. If they arise they are usually simple e.g. bruising, bleeding or infection of the wound which can be easily treated. The most frustrating complication is perhaps when the cyst comes back and a further operation is needed. Careful initial surgery can keep this problem to a minimum however there is always a small risk of recurrence. The surgeon will be operating around the child's airway and swallowing passages. As in any operation there is a risk of damaging adjacent structures but this remains extremely rare.