



Cumbria Advisory Thyroid Service



INFORMATION SHEET

THYROID AND PARATHYROID DISORDERS

The four parathyroid glands are located on the back of each lobe of the thyroid gland.

As these glands are so close to the thyroid gland they become vulnerable to damage either from tumours and/or surgery. Their main function is to secrete the hormone parathormone which maintains the blood concentration of calcium within normal limits. Parathormone and calcitonin from the thyroid gland act together and are needed for:

- i) muscle contraction
- ii) blood clotting
- iii) nerve impulse transmission

HYPERPARATHYROIDISM

Excess secretion of parathormone, usually by benign tumours of the gland, causes reabsorption of calcium from bones, raising the blood calcium level. The effects may include:

- i) formation of renal calculi complicated by pyelonephritis and renal failure
- ii) muscle weakness
- iii) general fatigue
- iv) calcification of soft tissue

HYPOPARATHYROIDISM

Parathormone deficiency causes an abnormally low level of ionised calcium in the blood. This reduces absorption of calcium from the small intestine, and reabsorption from bones etc. This causes:

- i) increased skeletal muscle tone – tetany (carpopoedal spasm)
- ii) development of cataract and brittle nails
- iii) behavioural disturbances, and, in extreme cases, dementia
- iv) paraesthesia – tingling and pin and needles
- v) convulsions

Causes vary from damage by surgery, ionising radiation (as in Radio/iodine treatment) to development of autoimmune conditions to parathyroid gland cells etc, and congenital abnormality of the glands.

The treatment must be given by Consultants in Endocrinology and a close watch kept on blood levels.

C.A.T.S RECOMMENDS YOU ALWAYS SEEK YOUR DOCTORS ADVICE

Disclaimer

The purpose of this information leaflet is to help those suffering with thyroid disease. Whilst every effort is made to provide accurate information, it is impossible to ensure that the information given is relevant to every individual. No responsibility is accepted by CATS and it is recommended and essential, that if in any doubt about your condition, that you should always contact your doctor, specialist physician or surgeon to seek medical advice.