Lithium is a so-called mood stabiliser and has been used in the treatment of bipolar disorders, earlier termed manic depression, for almost seven decades. Lithium is still regarded as the gold standard in therapeutic alternatives. There are, however, several well-known side-effects, including potentially effecting the thyroid gland and kidneys. Less well-known or understood is its effect on the parathyroid glands. Lithium-associated hyperparathyroidism (LHPT) is an ill-defined and somewhat indistinct endocrinopathy. Despite an ever increasing, though currently relatively limited, body of descriptive literature, there remains a good deal of controversy as to its prevalence and pathophysiological background, thereby leading to clear difficulties in establishing recommendations for adequate management of the condition. The studies in this thesis confirm that LHPT is very common, that it has biochemical and pathophysiological characteristics which differ from primary hyperparathyroidism (the common form of pathological over-stimulation of the parathyroid glands in non-lithium users), and that current surgical management of LHPT may not be adequate. Details are also provided of an on-going randomised study aimed at evaluating the surgical management of LHPT.