# Medically Managing Primary Hyperparathyroidism

This department covers selected points from the 2006 Endocrine Update: A CME Day from the Division of Endocrinology and Metabolism at McMaster University and the University of Western Ontario, June 2006.
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Severe hypercalcemia, osteitis fibrosa cystica and nephrolithiaisis are no longer common presenting features of primary hyperparathyroidism (PHPT). Most frequently, PHPT is now diagnosed at an asymptomatic phase.

## *Diagnosis*

The diagnosis of PHPT is established by elevated serum calcium in the presence of elevated or inappropriately normal serum parathyroid hormone (PTH). Patients taking hydrochlorothiazide or lithium presenting with this condition should have these drugs discontinued and be retested after three months. Similarly, the possibility of familial hypocalciuric hypercalcemia and tertiary hyperparathyroidism must be eliminated. The new third-generation intact immunoradiometric assay has helped increase the diagnostic sensitivity of PHPT from 86% to 96%. Preoperative imaging has not been proven useful for diagnosing PHPT, but rather should be used for preoperative preparation after the decision for surgical intervention has been made.

## *Medical management*

Surgery is curative and recommended for those with symptomatic disease. Medical management for PHPT has been effective in maintaining bone density and options include:

- hormone-replacement therapy,
- raloxifene and
- aminobisphosphonates (specifically, alendronate has been shown to improve BMD in people with PHPT).

The newly-introduced calcimimetic agent cinacalcet holds promise for the future of PHPT management, as it acts to increase the sensitivity of the extracellular calcium receptor on the parathyroid glands, resulting in a marked decline in PTH secretion and thereby lower serum calcium levels. However, fracture data is required before evidence-based recommendations for the medical management of PHPT can be formulated.

Overall, medical therapies for PHPT are undergoing further evaluation and remain alternatives to surgery for select patients with PHPT who are unable or unwilling to proceed with parathyroidectomy. Dx

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