

### Iatrogenic Hyperthyroidism

A 53 year old patient awaiting a laminectomy with history of hypothyroidism treated with thyroxine replacement. Thyroid Stimulating Hormone assay showed hyperthyroidism (TSH 0.6) on 250 mg thyroxine per day. Further tests: - T4 26 (raised) and FT3 within normal limits. Question: - How should this be managed?

**Discussion:** - (Advice from endocrinologists):- the results suggest that the thyroxine replacement is excessive (moderately raised T4), but the FT3 result suggests that "the body is coping with the excessive dose of T4 at present". The concern is that stress of surgery; fasting etc. may reduce the body's handling of T4, and thus tip the patient into a hyperthyroid state. The suggested management (involving the GP) would be to stop thyroxine altogether for one week, and then re-start on a lower dose (about 175 micrograms per day). Easy enough for this case. In an emergency it would be reasonable to go ahead and use a non-selective beta-blocker to control symptoms of hyperthyroidism if it was suspected. A true 'thyroid crisis' would be extremely unlikely.