

## Patient information leaflet

# Keep and Copy Series



## YOU AND YOUR THYROID SUPPLEMENT

**Dr PM van Zyl**  
Clinical pharmacologist

*S Afr J Diabetes Dis* 2011; **8**: 26.

Levothyroxine (T4) is the preferred drug for the treatment of hypothyroidism. Liothyronine (T3) is used in extreme cases requiring rapid response.

### TAKING LEVOTHYROXINE

To avoid overdosing, therapy is started at a relatively low dose and then increased very gradually (every two to four weeks) until thyroid function tests confirm that the desired level of activity has been reached. If you have a cardiac problem, therapy will be started at half the normal dose. Elderly patients require smaller doses in general.

Take the drug on an empty stomach with water, preferably half an hour to one hour before breakfast and at least four hours apart from antacids, iron and calcium supplements. Tablets may be crushed and mixed with 5 to 10 ml of water. Capsules must be swallowed whole.

Store the medication at room temperature (25°C) and protect from light and moisture.

### TAKING OTHER MEDICATION WHILE ON THYROID REPLACEMENT THERAPY

Many drugs can have significant interactions with thyroid hormones. It is especially important to be vigilant about possible interactions with chronic drugs and drugs that easily become toxic. Interactions are prevented by close monitoring, dose adjustments or avoiding a particular drug.

The list below highlights some important ones:

- Antidiabetic drugs: monitor diabetes control. May require increased dose of antidiabetic drug.
- Digitalis: monitor digitalis levels. May require increased dosage of digitalis.
- Oestrogen: monitor thyroid function. May require increased thyroid hormone dose.
- Kelp: unpredictable effect on thyroid function. AVOID
- Warfarin: monitor anticoagulant. May require reduced warfarin dose (may cause bleeding).

AVOID drugs that increase the pulse rate and consult your doctor about the safety of over-the-counter (OTC) drugs.

### GENERIC SUBSTITUTION

If well controlled on a specific brand: DO NOT SWITCH BRANDS, as there may be significant differences in the amount of drug reaching the bloodstream.

### POSSIBLE SIDE EFFECTS

Side effects are mostly dose related: at high doses you may experience palpitations, weight loss, increased appetite, diarrhoea, flushing, sweating and headache. Report these symptoms to the doctor. Thyroid replacement can potentially aggravate cardiovascular disease, manifesting as angina and myocardial infarction. Other serious side effects are: liver failure, osteopenia, pseudotumor cerebri and seizures.

### WHAT ABOUT PREGNANCY AND BREASTFEEDING?

Levothyroxine is safe during all trimesters of pregnancy, as it does not cross the placenta. Pregnancy may cause requirements to fluctuate. Small amounts are excreted in breast milk, yet it is considered compatible with breastfeeding.

### WARNINGS

This drug should not be taken if you have an acute myocardial infarction, are allergic to any component of the product, if you suffer from non-toxic diffuse goitre or nodular thyroid disease (with suppressed TSH) or have thyrotoxicosis or uncorrected adrenal insufficiency.

It should never be used for the treatment of obesity. If the thyroid function is normal, it will be ineffective at normal doses and high doses can cause life-threatening side effects.

### MONITORING THERAPY

Expect the peak effect after three to four weeks. Therapy is monitored clinically and with a blood test. Thyroid function tests are done four to six weeks after dose adjustments to confirm whether dosing is optimal.

