Olive leaf

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Summary Message

Olive leaf has been shown to improve insulin sensitivity and pancreatic beta-cell function, although the mechanism by which it does so is not fully elucidated. Its effects on lipids and blood pressure are less clear and further research is required to substantiate these claims. No interactions have been documented; however, care should be taken with blood pressure–lowering medicines and hypoglycaemic agents, and olive leaf should not be used by pregnant or breastfeeding women in amounts greater than that found in food.

Olive leaf comes from *Olea europaea*, the olive tree. Olive leaves and olive leaf extract (OLE) have been used medicinally for their purported antihypertensive, hypoglycaemic, antioxidant, antimicrobial and anti-ageing properties.

PREPARATIONS: Olive leaf is available as a tea or powder, whereas OLE is available as softgel capsules, liquid extract, oral spray and lozenges. The extraction procedure can vary greatly between manufacturers, which affects the chemical composition of the extract.

COMMON NAMES: Olive, olive leaf, olive tree, olivier.

LATIN NAME: *Olea europaea* of the family Oleaceae.

ACTIVE CONSTITUENTS: The main active constituent is oleuropein (6–9% of dry leaf matter) and is commonly standardised to 18–22% of OLE. Other compounds also credited with activity include hydroxytyrosol, oleacein, oleanolic acid, verbascoside and tannin structures.

MANUFACTURER CLAIMS: Olive leaf is claimed to provide immune support, antioxidant activity, to achieve cardiovascular health by maintaining cholesterol and blood pressure within the normal range, and to support normal blood glucose levels.

EVIDENCE FOR EFFICACY: A 30-week randomised, placebo-controlled, crossover trial in overweight New Zealand men aged between 35 and 55 years showed a 15% improvement in insulin sensitivity and a 28% improvement in pancreatic beta-cell function after using an OLE containing 51.1 mg oleuropein and 9.7 mg hydroxytyrosol once a day for 12 weeks. This study did not find any changes to body composition, lipids or blood pressure; however, other studies using 500–1000 mg/day of EFLA943® (18–26% oleuropein, 30–40% polyphenols) have claimed substantial reductions in both systolic and diastolic blood pressure, total cholesterol, triglyceride and LDL levels after eight weeks. More human trials need to be carried out to substantiate these claims.

ADVERSE EFFECTS: Studies have not shown any significant adverse effects with OLE in doses of up to 1000 mg per day for eight weeks. Due to insufficient reliable information on the safety of olive leaf and OLE, women who are pregnant or breastfeeding should not use amounts greater than those found in foods.

DRUG INTERACTIONS: None are well documented; however, due to potential blood glucose and blood pressure–lowering effects of olive leaf, care should be taken when using concomitantly with hypoglycaemic and/or hypertensive medicines, as it may cause levels to fall too low.

Key references:

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