

Title:	Endovenous laser therapy for varicose veins
Agency:	Medical Services Advisory Committee (MSAC) MDP 106 Commonwealth Department of Health and Ageing GPO Box 9849 Canberra ACT 2601 http://www.msac.gov.au
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Aim:

To assess the safety, effectiveness and cost-effectiveness of endovenous laser therapy (ELT) for varicose veins, compared with conventional surgery (i.e. saphenous junction ligation with or without vein stripping) through a systematic literature review.

Results and Conclusions:

Safety:

Pooled data suggest a higher incidence of some minor adverse events after ELT. However, safety data from comparative studies favour ELT over conventional surgery, and pooled data indicate serious complications may be more common after conventional surgery. From the available literature, ELT appears to be at least as safe as conventional surgery.

Effectiveness:

Statistical comparisons regarding the primary clinical outcome of abolition of reflux were not possible for the majority of studies, due to inadequate reporting of clinical outcomes after conventional surgery; where comparisons were made, no significant difference was found between treatments. In the five comparative studies used to assess effectiveness, abolition of reflux was found to be achieved in 94.1 to 95.5 per cent of limbs treated with ELT, compared to 94.4 to 100.0 per cent of limbs that received conventional surgery. ELT patients reported better symptom improvement and quality of life than conventional surgery patients in the short term, and required less time to return to work. From the available literature, ELT appears to be an effective treatment for occluding the saphenous vein, and at least as effective overall as conventional surgery for the treatment of varicose veins.

Cost Effectiveness:

A cost-analysis was conducted based on the assumption of no significant differences between treatments in primary clinical outcomes. Receiving ELT rather than conventional surgery for unilateral varicose vein treatment was associated with an estimated cost saving of \$171 per patient. A predicted short-term increase in treatment demand (50 per cent above current levels in the first year, decreasing to 10 per cent in the third year) may impact the Australian health care system by an additional \$18.9M in the first year after ELT is approved.

Recommendation:

MSAC has considered the safety, effectiveness and cost-effectiveness for endovenous laser therapy for varicose veins compared with saphenous junction ligation with or without vein stripping. MSAC finds that endovenous laser therapy is at least as safe, effective and cost-effective as saphenous junction ligation and vein stripping for the treatment of varicose veins. MSAC recommends that public funding is supported for endovenous laser therapy. The Minister for Health and Ageing endorsed this recommendation on 20 May 2008.

Methods:

The evidence regarding ELT for the treatment of varicose veins was systematically assessed. Medline, Embase, Current Contents, the Cochrane Library, PubMed, AustHealth, CINAHL, Science Citation Index, and internet databases and sites were searched for ELT literature from September 2003 to August 2007 and conventional surgery literature from January 1997 to August 2007.