

# Study Spotlight: Cost-Effectiveness of SMILE

Lenticule Extraction with SMILE compared to FS-LASIK and PRK



Seeing beyond

## Source



### Title

Comparison of the Cost-Effectiveness of SMILE, FS-LASIK, and PRK for Myopia in a Private Eye Center in Spain



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### Publication

[Journal of Refractive Surgery 2021; 38\(1\):21-26](#)

## Methodology

- Costs calculation of most-known laser vision correction procedures from different perspectives.
- Usage of e.g., a decision tree model for the patient's perspective and a [formula](#) considering direct and indirect costs of a clinic to build up cost-effectiveness analysis.

$$\text{Clients} \times \text{Payment} > \text{Am} + \text{M} + \text{Cp} + \text{Ci} - (\text{Ceq} \times \text{Ci}) + \text{G}$$

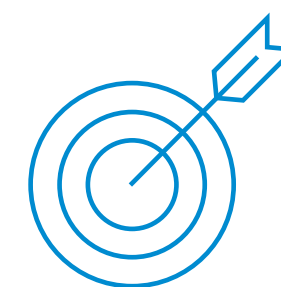
Am = annual amortization  $(\text{Ceq} - \text{Vr}) / \text{Vu}$   
 Ceq = financing mode of the equipment  
 Vr = residual value  
 Vu = useful life

M = annual maintenance (including consumables)  
 Cp = costs of personnel  
 Ci = indirect costs  
 G = patients/marketing

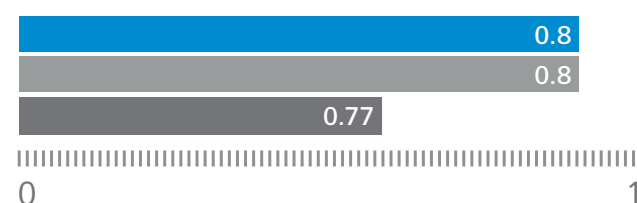
## Results

Per Procedure for a 30-Year Time Period

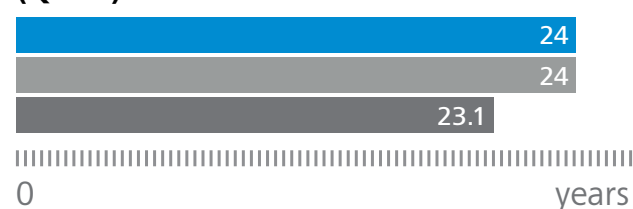
■ SMILE ■ PRK ■ FS-LASIK



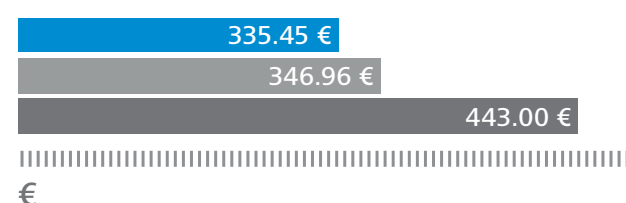
### Weighted Utility Values



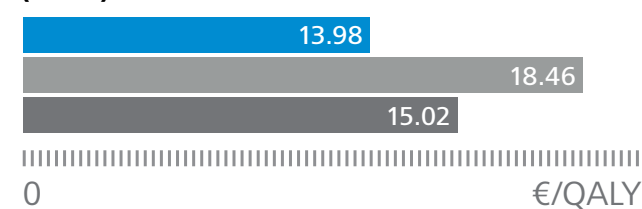
### Weighted Quality-Adjusted Life Years (QALY)



### Average Weighted Costs



### Incremental Cost-Effectiveness Ratios (ICER)



**SMILE is cost-effective and the investment in laser refractive surgery facilities is outweighed by the potential income.**

Calculations are based on the same price per procedure, per patient.