

## Sound-Based Interventions compared to Usual care for patients scheduled for ophthalmological surgery

**Patient or population:** patients scheduled for ophthalmological surgery

**Setting:** Ophthalmological Surgery

**Intervention:** Sound-Based Interventions

**Comparison:** Usual care

Outcomes	№ of participants (studies) Follow-up	Certainty of the evidence (GRADE)	Relative effect (95% CI)	Anticipated absolute effects	
				Risk with Usual care	Risk difference with Sound-Based Interventions
Anxiety after surgery	712 (5 RCTs)	⊕○○○ Very low <sup>a,b</sup>	-	-	SMD <b>0.73 SD lower</b> (1.17 lower to 0.29 lower)
Pain after surgery	349 (2 RCTs)	⊕○○○ Very low <sup>b,c,d</sup>	<b>OR 0.79</b> (0.01 to 81.20)	126 per 1,000	<b>24 fewer per 1,000</b> (124 fewer to 795 more)
Pain with the ophthalmological surgery	209 (3 RCTs)	⊕⊕○○ Low <sup>d,e</sup>	-	-	SMD <b>0.23 SD lower</b> (0.77 lower to 0.31 higher)
Patient's satisfaction after surgery	209 (3 RCTs)	⊕○○○ Very low <sup>b,d</sup>	-	-	SMD <b>1.12 SD higher</b> (0.34 lower to 2.59 higher)
Patient's satisfaction after surgery (OR)	258 (2 RCTs)	⊕⊕○○ Low <sup>d,f</sup>	<b>OR 2.67</b> (0.36 to 19.75)	930 per 1,000	<b>42 more per 1,000</b> (103 fewer to 66 more)
Surgeon's satisfaction after surgery	451 (2 RCTs)	⊕○○○ Very low <sup>b,d,g,h</sup>	-	-	SMD <b>0.9 SD higher</b> (0.91 lower to 2.72 higher)

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				Risk with Usual care	Risk difference with Sound-Based Interventions
Heart rate during surgery	889 (6 RCTs)	⊕○○○ Very low <sup>e,g</sup>	-	The mean heart rate during surgery was <b>0</b> bpm	MD <b>4.22 bpm lower</b> (7.11 lower to 1.32 lower)
Heart rate after surgery	1064 (6 RCTs)	⊕⊕○○ Low <sup>g</sup>	-	The mean heart rate after surgery was <b>0</b> bpm	MD <b>2.89 bpm lower</b> (5.21 lower to 0.58 lower)
Systolic Blood Pressure during surgery	808 (5 RCTs)	⊕○○○ Very low <sup>b,i</sup>	-	The mean systolic Blood Pressure during surgery was <b>0</b> mmHg	MD <b>12.82 mmHg lower</b> (21.52 lower to 4.12 lower)
Systolic Blood Pressure after surgery	739 (4 RCTs)	⊕○○○ Very low <sup>e,g</sup>	-	The mean systolic Blood Pressure after surgery was <b>0</b> mmHg	MD <b>8.22 mmHg lower</b> (13.83 lower to 2.61 lower)

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				Risk with Usual care	Risk difference with Sound-Based Interventions
Diastolic Blood Pressure during surgery	768 (4 RCTs)	⊕○○○ Very low <sup>b,g</sup>	-	The mean diastolic Blood Pressure during surgery was 0 mmHg	MD 4.14 mmHg lower (7.86 lower to 0.41 lower)
Diastolic Blood Pressure after surgery	739 (4 RCTs)	⊕○○○ Very low <sup>e,g</sup>	-	The mean diastolic Blood Pressure after surgery was 0 mmHg	MD 6.01 mmHg lower (10.5 lower to 1.51 lower)

\*The risk in the intervention group (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).

**CI:** confidence interval; **MD:** mean difference; **OR:** odds ratio; **SMD:** standardized mean difference

### GRADE Working Group grades of evidence

**High certainty:** we are very confident that the true effect lies close to that of the estimate of the effect.

**Moderate certainty:** we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different.

**Low certainty:** our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect.

**Very low certainty:** we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect.

## Explanations

- a. The overall risk of bias assessment for this outcome was "some concern".
- b. It was detected a level for considerable heterogeneity
- c. There were some limitations on the selection of the reported
- d. The OIS criterion is met, however, the 95% CI includes no effect
- e. It was detected a level for substantial heterogeneity
- f. The risk of bias overall assessed, the proportion of patient satisfaction outcome, was "some concerns".
- g. The overall risk of bias assessment for this outcome was high risk of bias
- h. Three studies evaluated surgeon satisfaction, 2 of them with an indirect question (satisfaction in relation to cooperation of the patient to follow instructions during surgery).
- i. The overall risk of bias for pain after surgery assessed was high risk of bias