

LASER (LOW LEVEL LASER)

Petrucci A, Sgolastra F, Gatto R, Mattei A, Monaco A. Effectiveness of low-level laser therapy in temporomandibular disorders: a systematic review and meta-analysis. *Orofac Pain*. 2011;25(4):298-307.

Low level laser therapy (LLLTL) compared to placebo for TMD

Patient or population: TMD

Intervention: Low level laser therapy

Comparison: Placebo

Outcomes	Anticipated absolute effects* (95% CI)	Relative effect (95% CI)	No of participants (Studies)	Quality of the evidence (GRADE)	Comments
	Risk with Low level laser therapy				
Pain intensity assessed with: VAS, follow up: 30 days	The mean pain intensity in the intervention group was 7.77 WMD higher (2.49 lower to 18.02 higher)	-	191 (6 RCTs)	⊕⊕⊕○ MODERATE ^{1,2}	LLLTL was not better than placebo in reducing chronic TMD pain
Maximum mandibular vertical opening assessed with: mm, follow up: 30 days	The mean maximum mandibular vertical opening in the intervention group was 4.04 higher (3.06 higher to 5.02 higher)	-	65 (2 RCTs)	⊕⊕○○ LOW ^{3,4}	LLLTL was better than placebo in maximum mandibular vertical opening
Right lateral excursion assessed with: mm, follow up: 30 days	The mean right lateral excursion in the intervention group was 1.64 higher (0.1 higher to 3.17 higher)	-	65 (2 RCTs)	⊕⊕○○ LOW ^{3,4}	LLLTL was better than placebo in right lateral excursion
Left lateral excursion assessed with: mm, follow up: 30 days	The mean left lateral excursion in the intervention group was 1.9 higher (4.08 lower to 7.88 higher)	-	65 (2 RCTs)	⊕⊕○○ LOW ^{3,4}	LLLTL was better than placebo in left lateral excursion

*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; RR: Risk ratio; OR: Odds ratio;

GRADE Working Group grades of evidence

High quality: We are very confident that the true effect lies close to that of the estimate of the effect

Moderate quality: 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 quality: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect

Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect

1. Manglende blinding av observatør/terapeut
2. Middels heterogenitet
3. Stor heterogenitet
4. Effekt avhengig av LLLTL dose/regime

Oppsummering: Resultatene viser ingen signifikant forskjell i smertereduksjon ved bruk av laser sammenlignet med placebo i behandling av pasienter med langvarig TMD. For gapeevne og sidebevegelse er det en liten, men statistisk signifikant forskjell i favør av laser sammenlignet med placebo. Grunnlaget for dokumentasjonen er basert på få studier med moderat og lav kvalitet.