ØVELSER OG EVENTUELT MOBILISERING

Alves BM, Macedo CR, Januzzi E, Grossmann E, Atallah ÁN, Peccin ST. Mandibular manipulation for the treatment of temporomandibular disorder. J Craniofac Surg 2013;24(2):488-93.

Mandibular manipulation compared to other treatment for acute and chronic disc displacement without reduction.

Patient or population: Acute and chronic disc displacement without reduction.
Intervention: Mandibular manipulation
Comparison: Other treatment

Outcomes	**Anticipated absolute effects*** (95% CI) **Risk with mandibular manipulation**	Relative effect (95% CI)	№ of participants (Studies)	Quality of the evidence (GRADE)	Comments
Pain reduction assessed with: SSI, VAS follow up: 60 months	The mean pain reduction in the intervention group was 0.27 standard deviations lower (0.61 lower to 0.08 higher)	-	158 (2 RCTs)	⊕⊕⊕◯ MODERATE [1,2]	No significant differences in pain outcomes Rehabilitation versus Medical management/ Arthroscopy/Arthroplasty/Palliative care/Control
Mandibular function assessed with: CMI,VAS, DAL follow up: 60 months	The mean mandibular function in the intervention group was 0.29 standard deviations higher (0.06 higher to 0.64 higher)	-	158 (2 RCTs)	⊕⊕⊕◯ MODERATE [1,2]	No significant differences in mandibular function Rehabilitation versus Medical management/ Arthroscopy/Arthroplasty/Palliative care/Control

***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. Ikke klar/ikke tilstrekkelig blinding
2. Bra antall av pasienter men bare to studier

Oppsummering: Resultatene viser ingen signifikant forskjell i effekt på smerte / underkjevefunksjon for manipulasjon av underkjeven sammenlignet med artroskopi, artroplastikk, medikamentell behandling eller ingen behandling. Grunnlaget for dokumentasjonen er basert på to studier av middels kvalitet.

Fricton J et al. Does exercise therapy improve headache? A systematic review with meta-analysis. Current Pain and Headache Reports 2009;13(6):413-419.

Exercise therapy compared to usual TMD treatment for Headache and TMD patients.

Patient or population: Headache and TMD patients.
Intervention: Exercise therapy
Comparison: usual TMD treatment

Outcomes	**Anticipated absolute effects*** (95% CI) **Risk with exercise therapy**	Relative effect (95% CI)	№ of participants (Studies)	Quality of the evidence (GRADE)	Comments
Pain severity follow up: mean 2-12 months	The mean pain severity in the intervention group was 2.815 Odds ratio higher (1.499 higher to 5.289 higher)	-	297 (4 RCTs)	⨁◯◯◯ VERY LOW [1][2][3]	Results suggest that exercise, particularly stretching and postural relaxation has therapeutic value for Tension type headache and TMD

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1. Low sample size
2. Both headache and TMD
3. Lack of diagnostic precision.

Oppsummering: Resultatene viser at øvelser (særlig tøyning og avspenning) har positiv effekt på smertereduksjon både for TMD og spenningshodepine. Dokumentasjonen er vurdert å være av veldig lav kvalitet.

Table 3 Evidence profile of mouth-opening exercise for temporomandibular disorders.

Quality assessment							No. of patients		Effect	Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Mouth opening exercise	Control	Mean difference (95% CI)		
Maximum mouth opening (control: no treatment or NSAIDs)											
3	Randomized trials	No serious risk of bias	No serious inconsistency	No serious indirectness	Serious 1	None	73	70	1.95 (−1.71, 5.61)2 There were differences in effect	⊕⊕⊕O MODERATE	Critical
Maximum mouth opening (control: stabilization splint + NSAIDs)											
1	Randomized trials	No serious risk of bias	No serious inconsistency	No serious indirectness	No serious imprecision	Reporting bias 3	19	25	6.20 (2.06, 10.35) There were differences in effect	⊕⊕⊕O MODERATE	Critical
Pain (control: no treatment or NSAIDs)											
3	Randomized trials	No serious risk of bias	No serious inconsistency	Serious 4	Serious 5	None	73	70	−1.28 (−11.3, 8.74) 2 There were no differences in effect and the confidence interval (std. dev.) was large.	⊕⊕OO LOW	Important
Pain (control: stabilization splint + NSAIDs)											
1	Randomized trials	No serious risk of bias	No serious inconsistency	Serious 4	Serious 5	Reporting bias 3	19	25	−15.20 (−31.55, 1.15) There were no differences in effect and the confidence interval (std. dev.) was large.	⊕OOO Very low	Important
Activity of daily living (control: no treatment or NSAIDs)											
3	Randomized trials	No serious risk of bias	Serious 6	Serious 6	Serious 6	None 6	73	70	The difference was small.	Very low	Important
Activity of daily living n (control: stabilization splint + NSAIDs)											
1	Randomized trials	No serious risk of bias	No serious inconsistency	Serious 6	Serious 6	Reporting bias 6	19	25	The difference was small.	⊕OOO Very low	Important
(Control: no treatment or NSAIDs)											
2	Randomized trials	No serious risk of bias	No serious inconsistency	Serious 4	Serious 6	None	48	49	1.94 (0.90, 4.17)	⊕⊕OO Low	Important

1. There were no calculations reported for the number of patients in the Minakuchi and Yuasa studies. We suspect that the number of patients was low.
2. The Yuasa study used a median, and the authors mentioned that they did not have raw data. A meta-analysis was performed with two studies, excluding the Yuasa study.
3. Although there was a difference in effect, the difference was small.
4. It described an important outcome but the study did not measure the mouth opening.
5. The confidence interval was too large.
6. No explanation was provided.

Evidensprofilen er basert på fire studier (pasienter med leddskiveforskyvning uten normalisering, «closed lock») og er laget av Yuasa H et al. i arbeidet med japansk retningslinje for behandling av TMD.

Oppsummering, Yuasa H et al.: "*For TMD patients, who are suffering from a mouth-opening disturbance caused by disk displacement, we suggest the optimal use of a manual and self-mouth-opening exercise with/without NSAID administration after sufficient information on disease including disk position is provided to the patient (Grade 2B).”*
Grade 2B: Weak recommendation, moderate-quality evidence.