# NKR 34 - Non-surgery versus Arthroscopy for meniscus lesions

## Review information

### Authors

the Danish Health and Medicines Authority[1]

[1][Empty affiliation]

Citation example: tDHaMA. NKR 34 - Non-surgery versus Arthroscopy for meniscus lesions. Cochrane Database of Systematic Reviews [Year], Issue [Issue].

## Characteristics of studies

### Characteristics of included studies

#### *Biedert 2000*

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | High risk | Randomized by birth date |
| Allocation concealment (selection bias) | Unclear risk | Not described |
| Blinding of participants and personnel (performance bias) | Unclear risk | Not described |
| Blinding of outcome assessment (detection bias) | Unclear risk | Not described |
| Incomplete outcome data (attrition bias) | High risk | No statements of dropouts or analysis methods. |
| Selective reporting (reporting bias) | Low risk | |
| Other bias | High risk | Detection and performance bias |

#### *Gauffin 2014*

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | Unclear risk | no details |
| Allocation concealment (selection bias) | Low risk | The allocation sequence was concealed from the orthopaedic surgeon that enrolled and assessed participants. The allocations were placed in sequentially numbered, opaque, sealed envelopes in 15 blocks, block size 10. Envelopes were opened after the enrolment by the patient and a nurse. |
| Blinding of participants and personnel (performance bias) | High risk | Envelopes were opened after the enrolment by the patient and a nurse. |
| Blinding of outcome assessment (detection bias) | High risk | subjective outcomes (KOOS questionnaire) |
| Incomplete outcome data (attrition bias) | High risk | ITT analysis. Dropouts equally distributed. However, regarding crossover as dropouts, which is only possible for one group, there is high risk of attrition bias. |
| Selective reporting (reporting bias) | Low risk | |
| Other bias | Low risk | |

#### *Herrlin 2013*

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|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |

| | |
|---|---|
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | Unclear risk | no details |
| Allocation concealment (selection bias) | Unclear risk | no details |
| Blinding of participants and personnel (performance bias) | High risk | no blinding |
| Blinding of outcome assessment (detection bias) | High risk | subjective outcomes (KOOS questionnaires) |
| Incomplete outcome data (attrition bias) | High risk | dropouts equally distributed. However, regarding crossover as dropouts, which is only possible for one group, there is high risk of attrition bias. |
| Selective reporting (reporting bias) | Low risk | |
| Other bias | Low risk | |

***Katz, 2013***

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | Low risk | Fra Thorlund, 2015 |
| Allocation concealment (selection bias) | Low risk | Fra Thorlund, 2015 |
| Blinding of participants and personnel (performance bias) | High risk | Fra Thorlund, 2015 |
| Blinding of outcome assessment (detection bias) | High risk | Fra Thorlund, 2015 |
| Incomplete outcome data (attrition bias) | High risk | Fra Thorlund, 2015 |
| Selective reporting (reporting bias) | Low risk | Fra Thorlund, 2015 |
| Other bias | Low risk | Fra Thorlund, 2015 |

***Sihvonen 2013***

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | High risk | Risk of selection bias |
| Allocation concealment (selection bias) | Low risk | Fra Thorlund, 2015 |
| Blinding of participants and personnel (performance bias) | Low risk | Fra Thorlund, 2015 |
| Blinding of outcome assessment (detection bias) | Low risk | Fra Thorlund, 2015 |
| Incomplete outcome data (attrition bias) | Low risk | Fra Thorlund, 2015 |
| Selective reporting (reporting bias) | Low risk | Fra Thorlund, 2015 |
| Other bias | Low risk | Fra Thorlund, 2015 |

***Vermesan 2013***

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | Unclear risk | Fra Khan, 2014 |
| Allocation concealment (selection bias) | Unclear risk | Fra Khan, 2014 |
| Blinding of participants and personnel (performance bias) | High risk | Fra Khan, 2014 |
| Blinding of outcome assessment (detection bias) | High risk | Fra Khan, 2014 |
| Incomplete outcome data (attrition bias) | Unclear risk | Fra Khan, 2014 |
| Selective reporting (reporting bias) | Unclear risk | Fra Khan, 2014 |
| Other bias | Unclear risk | Fra Khan, 2014 |

***Yim, 2013***

| | |
|---|---|
| **Methods** | |
| **Participants** | |
| **Interventions** | |
| **Outcomes** | |
| **Notes** | |

Risk of bias table

| Bias | Authors' judgement | Support for judgement |
|---|---|---|
| Random sequence generation (selection bias) | Unclear risk | Fra Thorlund, 2015 |
| Allocation concealment (selection bias) | High risk | Fra Thorlund, 2015 |
| Blinding of participants and personnel (performance bias) | High risk | Fra Thorlund, 2015 |
| Blinding of outcome assessment (detection bias) | High risk | Fra Thorlund, 2015 |
| Incomplete outcome data (attrition bias) | High risk | Fra Thorlund, 2015 |
| Selective reporting (reporting bias) | Unclear risk | Fra Thorlund, 2015 |
| Other bias | Low risk | Fra Thorlund, 2015 |

*Footnotes*

# References to studies

## Included studies

***Biedert 2000***

[Empty]

***Gauffin 2014***

[Empty]

***Herrlin 2013***

[Empty]

***Katz, 2013***

[Empty]

***Sihvonen 2013***

[Empty]

***Vermesan 2013***

[Empty]

***Yim, 2013***

[Empty]

## Excluded studies

## Studies awaiting classification

## Ongoing studies

# Other references

## Additional references

### Other published versions of this review

Classification pending references

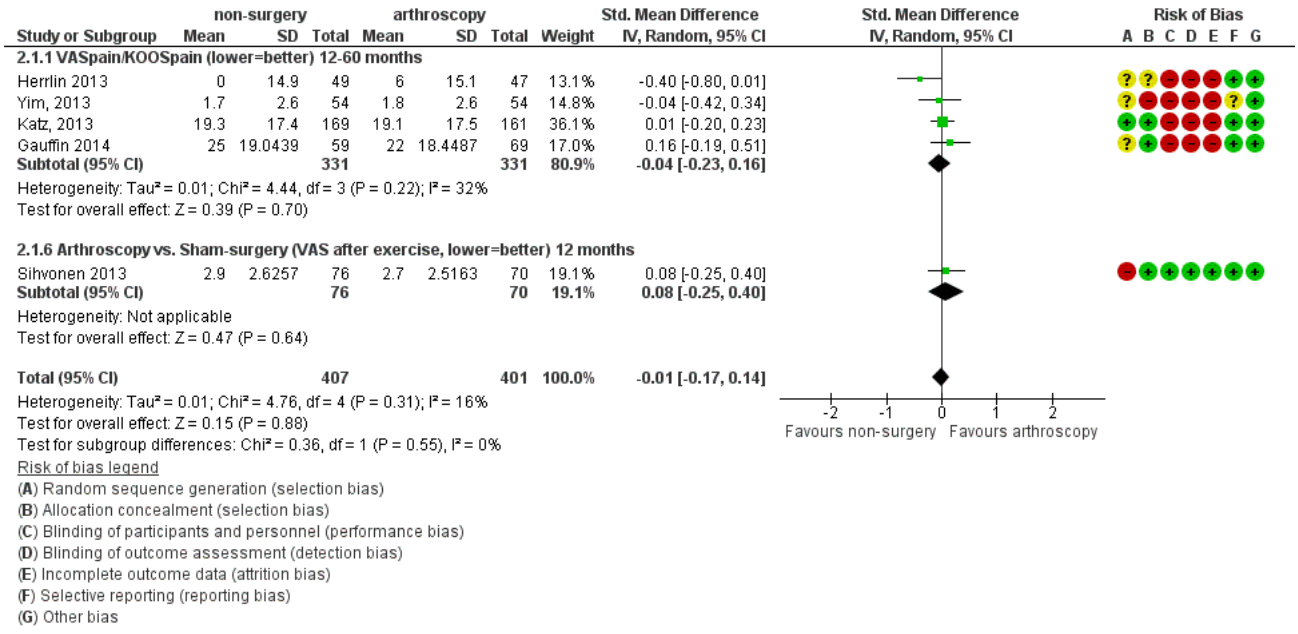
## Data and analyses

### 2 Non-sugery vs. Arthroscopy

| Outcome or Subgroup | Studies | Participants | Statistical Method | Effect Estimate |
|---|---|---|---|---|
| 2.1 Pain | 5 | 808 | Std. Mean Difference (IV, Random, 95% CI) | -0.01 [-0.17, 0.14] |
| 2.1.1 VASpain/KOOSpain (lower=better) 12-60 months | 4 | 662 | Std. Mean Difference (IV, Random, 95% CI) | -0.04 [-0.23, 0.16] |
| 2.1.6 Arthroscopy vs. Sham-surgery (VAS after exercise, lower=better) 12 months | 1 | 146 | Std. Mean Difference (IV, Random, 95% CI) | 0.08 [-0.25, 0.40] |
| 2.2 Function | 3 | 556 | Std. Mean Difference (IV, Random, 95% CI) | 0.07 [-0.10, 0.23] |
| 2.2.4 WOMACfunction/KOOSadl (lower=better) 12-60 months | 3 | 556 | Std. Mean Difference (IV, Random, 95% CI) | 0.07 [-0.10, 0.23] |
| 2.3 Health related Quality of Life | 3 | 372 | Std. Mean Difference (IV, Random, 95% CI) | 0.08 [-0.13, 0.29] |
| 2.3.1 KOOSqol (lower=better) 12-60 months | 2 | 226 | Std. Mean Difference (IV, Random, 95% CI) | 0.16 [-0.12, 0.44] |
| 2.3.4 Arthroscopy vs. Sham-surgery (WOMET, lower=better) 12 months | 1 | 146 | Std. Mean Difference (IV, Random, 95% CI) | -0.05 [-0.38, 0.27] |
| 2.4 Sick leave | 0 | 0 | Mean Difference (IV, Fixed, 95% CI) | Not estimable |
| 2.5 Work retention | 0 | 0 | Mean Difference (IV, Random, 95% CI) | Not estimable |
| 2.6 Symptoms | 2 | 226 | Std. Mean Difference (IV, Random, 95% CI) | 0.04 [-0.35, 0.42] |
| 2.6.3 KOOSsymptoms (lower=better) 12-60 months | 2 | 226 | Std. Mean Difference (IV, Random, 95% CI) | 0.04 [-0.35, 0.42] |
| 2.7 Muscle strength | 0 | 0 | Mean Difference (IV, Random, 95% CI) | Not estimable |
| 2.8 Symptoms | 1 | 146 | Risk Ratio (M-H, Random, 95% CI) | 0.94 [0.82, 1.07] |
| 2.8.1 Arthroscopy vs. sham-surgery (Global Impression of Change; improvement) 12 months | 1 | 146 | Risk Ratio (M-H, Random, 95% CI) | 0.94 [0.82, 1.07] |
| 2.9 Serious Adverse Events | 3 | 537 | Risk Ratio (M-H, Random, 95% CI) | 0.97 [0.37, 2.55] |
| 2.9.1 SAEs (cardiovascular, paresthesia, additional surgery) 12-38 months | 2 | 391 | Risk Ratio (M-H, Random, 95% CI) | 0.62 [0.16, 2.41] |
| 2.9.5 Arthroscopy vs. sham-surgery (infection, additional surgery) 12 months | 1 | 146 | Risk Ratio (M-H, Random, 95% CI) | 1.54 [0.38, 6.19] |

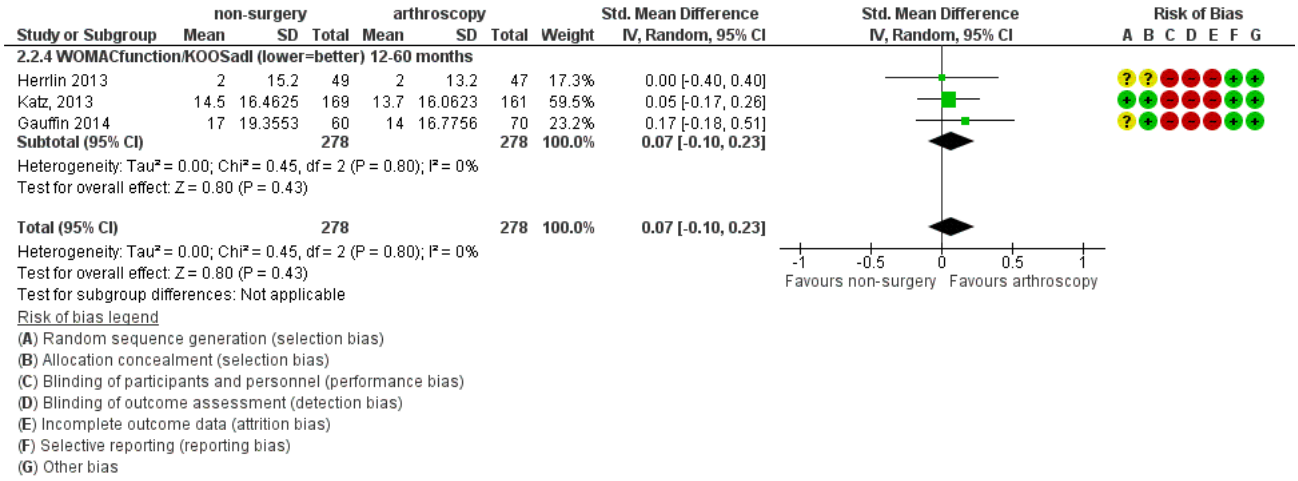
## Figures

### Figure 1 (Analysis 2.1)



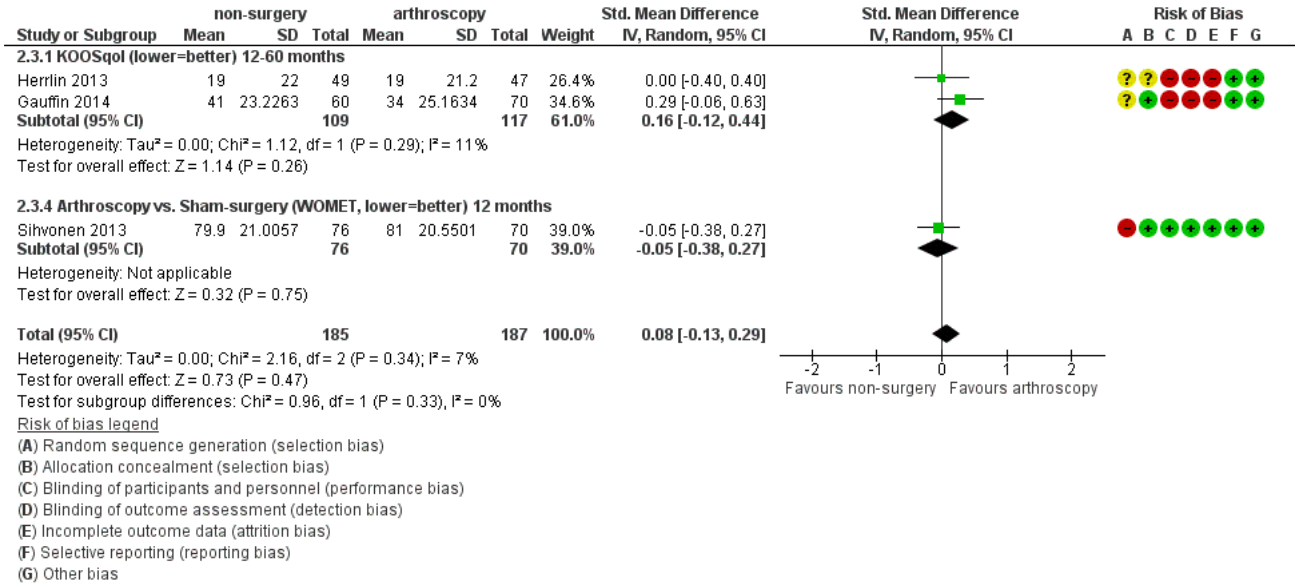

Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.1 Pain.

## Figure 2 (Analysis 2.2)



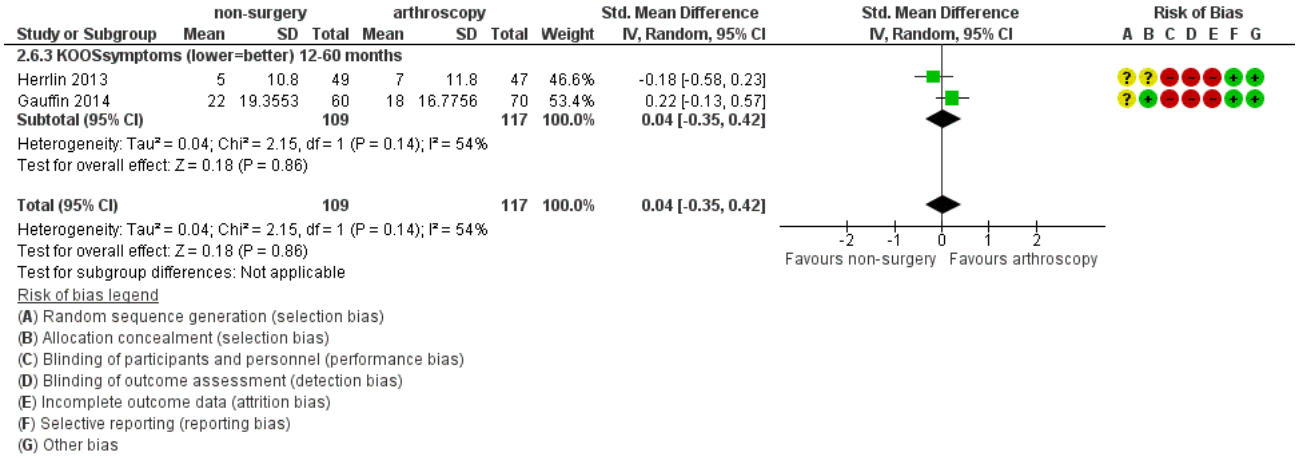

Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.2 Function.

## Figure 3 (Analysis 2.3)



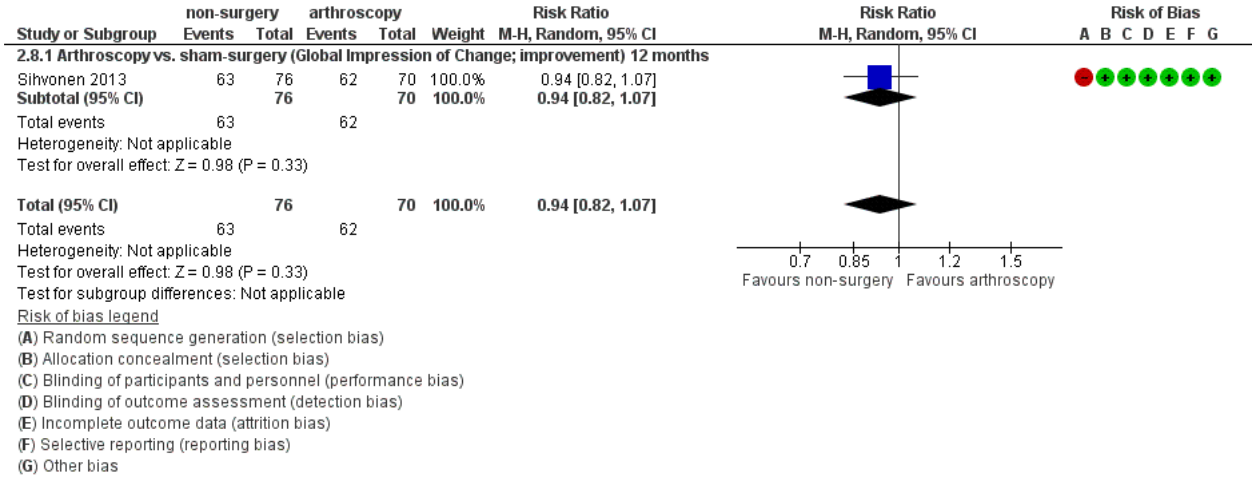

Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.3 Health related Quality of Life.

## Figure 4 (Analysis 2.6)



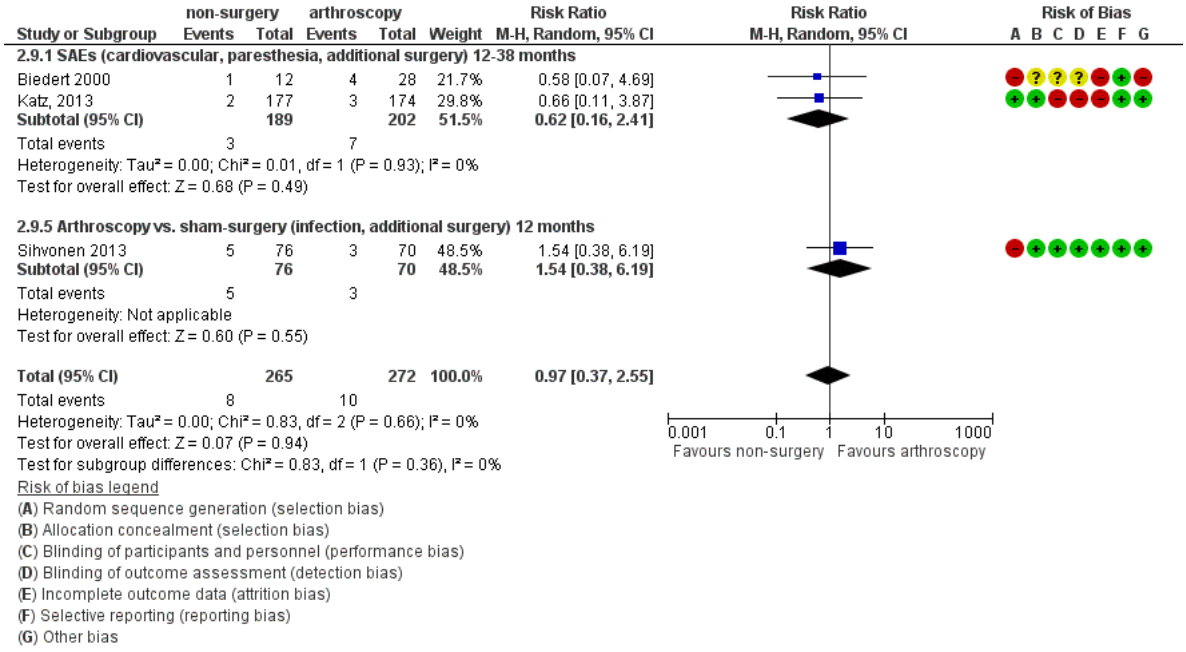

Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.6 Symptoms.

## Figure 5 (Analysis 2.8)




Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.8 Symptoms.

## Figure 6 (Analysis 2.9)




Forest plot of comparison: 2 Non-sugery vs. Arthroscopy, outcome: 2.9 Serious Adverse Events.