Don't forget to return the headphones to the hostesses at the end of the day.

No translation during the workshop tomorrow.
Dupuytren’s Disease in Relation to Exposure to Hand-Transmitted Vibration: A Systematic Review and Meta-Analysis

Tohr Nilsson
Dupuytren’s Disease in Relation to Exposure to Hand-Transmitted Vibration:

A Systematic Review and Meta-Analysis

Tohr Nilsson,
Jens Wahlström,
Eirik Reierth,
Lage Burström

Abstract in English (p. 1-4)
Dupuytren`s contracture: Fibroproliferative disease

- Palmar fascia (Dupuytren`s contracture)
- Plantar fascia fibromatosis (Ledderhose`s disease)
- Penis (Peyronie`s disease)
- Shoulder (Frozen shoulder)
- Knuckle fibromatosis (Knuckle pads)
- Plantar fasciitis (Heel spur)
- Pulmonary fibrosis
- Liver fibrosis

Diathesis for fibroproliferative disease

Fascia – ”Biotensegrity”
Activity reduction

- IT-society
  mobile phone
  computer

Disability often underestimated by doctors!
The degree of activity reduction depends on the type of work!

Bill Nighy
Disability related to contracture

- Prognosis?
- Functional impairment?
- Activity restriction??
Confounders

- Heredity
- Other fibroproliferative diseases
- Comorbidity (e.g., diabetes, epilepsy)
- Tobacco
- Alcohol

Confounders, modifiers, and the Age-Period-Cohort problem
Aim

• To study the risk of Dupuytren’s disease in relation to exposure of hand-transmitted vibration.

• To estimate the magnitude of such an association using statistical synthesis (meta-analysis).
Included
11 articles
Prevalence of Dupuytren's contracture and vibration

<table>
<thead>
<tr>
<th>Studie namn</th>
<th>Studiegrupp</th>
<th>Prevalens (%)</th>
<th>95% KI för prevalensen</th>
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Exposed | Low prevalence
8

Not Exposed | Low prevalence
4
## Risk of Bias assessment (reliability)

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* Dupuytren’s contracture only  ** Dupuytren’s disease or Dupuytren’s disease with contracture
Risk of Dupuytren`s disease and vibration*

<table>
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<tr>
<th>Study name</th>
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<th>Upper limit</th>
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<td><strong>Overall</strong></td>
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<td><strong>1.60</strong></td>
<td><strong>3.27</strong></td>
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</table>

* sorted by descending reliability
Risk of Dupuytren’s disease between groups within the same study that are "low exposed" vs "high exposed" *

This analysis limits the influence of confounding factors

* sorted by descending reliability
Conclusions: Dupuytren's contracture and vibration

• A risk (OR) for Dupuytren`s disease for vibration exposed of 2.28 (95% CI 1.60 - 3.27).

• High-exposed relative to low-exposed gave a risk (OR) of 2.16 (95% CI 1.19 - 3.94)

The combined results from the narrative and statistical synthesis support the conclusion that work with vibrating machines may constitute a single risk factor for Dupuytren’s disease.

- Given that the scientific basis is small, that there is an interaction between age and exposure, and that there may be individual differences in predisposition.

The findings support an association between vibration and Dupuytren’s disease.
Acknowledgements
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Thank you!

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