



**Working Document No. WP4-N12**

## **Risks of Occupational Vibration Injuries (VIBRISKS)**

European Commission FP5 Project No. QLK4-2002-02650

**Title:** Development of the VIBRISKS WBV questionnaire

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**Organisation:** AMC

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**Quality of Life and Management of Living Resources Programme  
Key Action 4 - Environment and Health**



**University  
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Institut National de Recherche en Santé



# Development of the VIBRISKS WBV questionnaire

WP4, task 4.1



Coronel Instituut



# Vibration Injury Network

Research Network on Detection and Prevention of  
Injuries due to Occupational Vibration Exposures

## Guidelines and Questionnaires for Whole-Body Vibration Health Surveillance

Appendix W1A to Final Report  
May 2001

EC Biomed II concerted action BMH4-CT98-3251



### Contents

1. Current knowledge on whole-body vibration injuries
2. Prevention measures
3. Health surveillance
  - 3.1. Aim of health surveillance
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Appendix I. Whole-Body Vibration: Pre-placement Health Surveillance  
Questionnaire

Appendix II. Whole-Body Vibration: Periodic Health Surveillance Questionnaire

Appendix III. Whole-Body Vibration: List of medical conditions that may increase the  
risk of disorders of the spine or other organs and structures.

Appendix IV. Physical examination methods of the lower back



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# Vinet WBV questionnaire



## Personal and general information

- Boshuizen et al 1993

## Work environment information

- Bongers & Hulshof 1990, Bovenzi & Betta 1994, Magnusson et al 1998

## Health effects

- Nordic questionnaire (Kuorinka et al 1983)
- Pain scale (von Korff et al 1992)
- Roland Morris disability scale (1983)
- Some harmonization with HAV Q (Bovenzi et al 1999)

## Contributing and confounding factors

- Fear Avoidance Beliefs Questionnaire (Waddell et al 1993)
- Psychosocial aspects of work (PAW) (Symonds et al 1996)



# VIBRISKS WBV Q, 1<sup>st</sup> draft



- *Suggestions and discussions during and after 1<sup>st</sup> consortium meeting (in particular UoS(MRC) ↔ AMC) and during 2<sup>nd</sup> meeting → modifications*
  - Separation in essential questions and optional questions
  - Deletion of some ambiguous questions
  - Inclusion of drawings for some of the work environment questions
  - Inclusion of question on onset of back pain
  - Inclusion of mental health score and scale of somatisation (SF36)
  - Deletion of PAW; inclusion of modification of Karasek model



# VIBRISKS WBV Q, 2<sup>nd</sup> draft



- *Suggestions and changes after sending of 1<sup>st</sup> draft (again UoS(MRC)↔AMC) → further modifications*
  - More critical selection of essential questions
  - Discussion about shortlist of driven vehicles
  - Changing of ‘trouble’ in ‘pain and discomfort’
  - Skip pattern was changed
  - Some unclear time boxes were reframed
  - Question on possible diagnoses by a doctor was deleted
  - Lay-out regarding time frame (7days/12 months) slightly adapted



# Further discussion → 3<sup>rd</sup> draft



- *Suggestions during Phone Conference (UMUH, UoS(MRC), AMC, 07 nov 2003) → further modifications (in particular section 2)*
  - Specification of vague response categories ('seldom-often')
  - Limit number of drawings for bending and twisting
  - Addition of drawings for neck flexion and rotation
  - More unity in answering categories regarding frequency
  - Deletion of ambiguous question on low back pain in previous jobs
  - Addition of question about reduction in work or tasks
  - Lay-out regarding time frame (7days/12 months) thoroughly changed



# Last discussion→ final version



- *Suggestions after Meeting in Viareggio and Final Correspondence with MRC and Trieste*
  - questions on exposure simplified and similar to the MRC questionnaire
  - the questions on bending and twisting and the corresponding pictures adapted (Lotters et al, Scand J Work Environ Health 2003;29(6):431-440)
  - question about cutting down normal duties due to back pain
  - Roland Morris Disability Scale now referring to the last episode of back pain
  - Fear Avoidance Beliefs questionnaire now also eligible for controls or people without back pain (to see if beliefs are predictive in those who were free of back pain at baseline)

