calculated. Acceleration signals were acquired in several body districts (foot, knee and hip). All measurements were related to the walking condition without the vibration.

Result Preliminary results showed that vibration does not affect stride length and step phases. The muscular activation patterns exhibit frequency related modification, in terms of sEMG bursts amplitude and timing. There is a linear correlation between 8 Hz frequency and muscular activation.

Discussion Transmitted vibration triggers a tonic vibration reflex (TVR) that is related to mechanical frequencies.[2] TVR is also related to the motor task because of the mechanical coupling between vibrator and biological apparatus.[3] These facts could explain the modifications in leg muscle activation revealed with sEMG.

REFERENCES

1. Fattorini L, Tirabasso A, Lunghi A, Di Giovanni R, Sacco F, Marchetti E. Muscular forearm activation in hand-grip tasks with superimposition of mechanical vibrations. *J Electromyogr Kinesiol* 2016;**26**:143–148.
2. Eklund G, Hagbarth KE. Normal variability of tonic vibration reflexes in man. *Exp Neurol* 1966;**16**:80–92.
3. Fattorini L, Tirabasso A, Lunghi A, Di Giovanni R, Sacco F, Marchetti E. Muscular synchronisation and hand-arm fatigue. *Int J Ind Ergon* 2017.

901 HEARING LOSS INDUCED BY ENVIRONMENTAL NOISE IN MEXICAN ADULTS FROM MEXICO CITY

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Introduction The noise affects the individual social integration by damaging their hearing.

Aim The aim of the study was to measure the average hearing threshold (UAP) and its determinants in a group of Mexican adults in Mexico City.

Methods We studied 177 adults of both sexes. We excluded those exposed to industrial noise and organic solvents, as well as those who suffered brain trauma with loss of consciousness, frequent respiratory infections and otitis media. We measured the auditory threshold by tonal audiometry (125–8000 Hz). The UAP was modelled with robust multiple linear regression.

Results 57.3% (101) were men, with a mean age of 29 (9 16–61] years and 43% (76) women aged 30 (9 17–54]. There was appreciated a fall at the auditory threshold frequencies 3, 4 and 6 KHz (notch) and recovery to the 8 kHz, by sex, age and terciles in both ears. The 4 kHz showed hearing loss of $\beta=2.96$ dB ($p=0.005$) by urban travel time >40 minutes/day in men $\beta=2.6$ dB ($p=0.009$), by categories of age: 25–34 years $\beta=2.2$ dB ($p=0.070$), 35–44 years $\beta=5.2$ dB ($p=0.001$) and 45–61 years $\beta=8.3$ dB ($p<0.001$).

Discussion The indentation suggests a hearing loss similar to the first stage of the noise-induced hearing damage. It is likely his relationship to the ambient noise of Mexico City.

981 NEW RISK CONCEPTS IN THE NORWEGIAN OIL AND GAS INDUSTRY AND ITS IMPACT ON NOISE RISK ASSESSMENT

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The Norwegian Petroleum Safety Authority has been defined risk as the consequences of an activities, with associated uncertainty. This concept applies on both quantitative risk assessment (with focus on large accidents) where it has been developed and the field of occupational hygiene and acoustics.

This presentation will discuss its impact on occupational health risk assessment in general and on noise risk assessment more specific and gives examples of how this new concept has influenced our work.

Women, Health and Work

1167 MAINSTREAMING GENDER INTO OCCUPATIONAL SAFETY AND HEALTH (OSH) PRACTICE

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Introduction Women and men are different, and the jobs they do, their working conditions and circumstances and how society treats them are different, affecting the occupational risks they face: a gender-sensitive prevention approach is required. However, gender mainstreaming and taking a gender-sensitive approach are not always well understood in OSH. Practice needs to be exchanged and experiences shared in order to debunk some of the myths and barriers. This project researched examples of policies, programmes and practices from across the EU and worldwide to illustrate gender approaches in OSH.

Methods The cases cover approaches by national and intermediary organisations and gender-sensitive approaches to OSH in the workplace. Detailed descriptions of a range of cases were made, covering the development process and what was achieved. Brief summaries of additional examples were made. The cases were analysed for success factors, challenges, drivers and transferability.

Results The cases were varied, covering: integrating gender mainstreaming into organisations' planning, administration and daily working practices; developing methods and tools to promote gender mainstreaming; facilitating working conditions suitable for both women and men, including both health and human resources management; the reconciliation of work and family life and thereby promoting better work–life balance; ensuring women are encouraged and supported in working in male-dominated professions; designing and promoting personal protective equipment (PPE) for women; conducting awareness-raising campaigns on health.

Discussion Men and women benefit when gender differences are recognised and are addressed in OSH. The report shows