

Electrical Injury:

Prevention, exposure, pathology, clinical aspects, treatment and follow-up

STAMI – The National Institute of Occupational Health, Oslo, Norway

18 – 20.4.2023

Tuesday, 18.4.2023

Acute reactions, and some chronic effects

10.00 – 10.30 *Course registration and coffee*

10.30 – 11.00 **Introduction**
Scope and purpose of the course
Presentation of participants

11.00 – 11.30 **What is an electrical injury** **Bo Veiersted**
Incidence, exposure characteristics and definitions, injury **Lars Ole Goffeng**
mechanisms. Acute, chronic, latent injury. Individual
vulnerability and risk of injuries.

11.30 – 12.00 **Acute effects and reactions - an overview** **Bo Veiersted**
Skin/burns, heart, nervous system, muscular, psychological
reactions, traumatic/fall

12.00 – 12.45 **Acute treatment of electrical burns** **Ragnvald Ljones Brekke**
Practice at department of plastic surgery and burns,
Haukeland Hospital, Bergen

12.45 – 13.30 *Lunch break*

13.30 – 14.30 **Acute neurological injuries and mechanisms** **Lisa Rådman**
Acute effects after exposure to electrical current. Why and **Martin Tondel**
how effects develop over time.

14.30 – 15.00 **Acute muscular symptoms and reactions** **Bo Veiersted**
“Now or never” – or later?

15.00 – 15.30 *Short break*

15.30 – 16.00 **Acute and long-term psychological/traumatic reactions** **Lars Ole Goffeng**

16.00 – 16.45	Electrical accidents and heart complications Acute effects and risk for later arrhythmias Acute medical follow-up Experiences and current recommendations	Henrik Schirmer
19.00 – 21.30	Social program: Dinner at Brasserie Blanche <i>Josefines gate 23, 0351 Oslo</i>	

Wednesday, 19.4.2023

Long-term health, research

08.30 – 09.00	Chronic and long-term effects – an introductory overview	Bo Veiersted Lars Ole Goffeng
09.00 – 10.45	Electrical accidents in Denmark Recent epidemiological studies in electricians and general population. How much and how dangerous? How some get symptoms and others not, by “similar” accidents. Prognosis.	Karin Biering
10.45 – 11.15	<i>Short break</i>	
11.15 – 12.00	Chronic neurological injuries after electrical current Long-term effects and delayed nerve injury	Lisa Rådman
12.00 – 12.45	Chronic Psychological effects of electrical accidents	Sara Thomée Lars Ole Goffeng
12.45 – 13.30	<i>Lunch break</i>	
13.30 – 14.00	Secondary injury prevention I - Reducing injury consequences Relevance of acute treatment medical examination and reports for long-term health effects and compensation or insurance considerations Acute phase prognostic signs of long-term outcome Implications for follow-up?	Sara Thomée Lars Ole Goffeng
14.00 – 14.30	Secondary injury prevention II - Long-term coping Follow-up of chronic and long-term effects. “Focal training”/exercise, vs. “Compensation”/alternative behavioral or cognitive approach	Lars Ole Goffeng
14.30 – 14.45	<i>Short break</i>	
14.45 – 15.45	Group work a) Criteria for acute medical follow-up in emergency ward? b) What shall be examined, or subject to follow-up?	

- c) Patient-/risk communication:
 - What do patients know and expect from medical staff?
 - What should the patient – doctor dialogue emphasize?
 - How should patients be met or informed?
- d) How do we prevent accidents? Introductory thoughts on primary prevention.

15.45 – 16.30 **Plenum. Presentation and discussion**

17.15 – 22.00 **Social program: Street art tour of Oslo, dinner at Nedre Foss Gård**

17.15 Bus from Thon Hotel Gyldenløve to Rosenhoffgata 18

17.30 Guided tour of Oslo's street art with local street artists

19.15 Dinner at Nedre Foss Gård

22.00 Bus back to Thon Hotel Gyldenløve

Thursday, 20.4.2023

Accident prevention

08.30 – 09.15 **Primary prevention strategies – Introduction and overview** **Lars Ole Goffeng**
 How to prevent accidents: Legislative, organizational/structural, psychosocial: relational/communication, individual, and technical/practical approaches

09.15 – 10.00 **Legislative approach to accident prevention interventions:** **Robert Krahl**
 - Legislation DSB/AT, Standardization NEK/IEC, REN
 - Qualifications and specifications
 - Safety training courses/Teaching
 - Equipment design/Technical considerations

10.00 – 10.15 *Short break*

10.15 – 11.45 **Understanding organizational, social and individual driving forces for safe and unsafe behaviour as a basis for designing and implementing effective safety interventions** **Marianne Törner**
 - The significance of why humans act the way we do, for design and implementation of safety interventions.

11.45 – 12.15 **Practical/technical safety interventions** **Kai Christoffersen**
 - Experience based, "at work"

12.15 – 13.00 *Lunch*

13.00 – 14.30 **Recommendations regarding follow-up** **All**
 - Who may benefit from follow-up?
 How to prevent or reduce injury consequences – a general perspective taking into consideration integration of exposure

information, anamnestic information, acute reactions of prognostic value, and long-term effects

- Where do we get information?

Focus on primary interview, where should we start?

14.30 – 14.45 *Short break*

14.45 – 15.30 **Discussion, conclusion, summary** **All**

- Need for harmonization of treatment of injured?
- Should national recommendations for follow-up of victims be introduced?

Closing of the course