

Invitation

The Federal Institute for Occupational Safety and Health (BAuA) is holding a European workshop on “Light, Health and Shift Work” in conjunction with Public Health England (PHE).

Many physiological processes in the human body follow circadian rhythms of day-time activity and night-time rest, linked to the natural pattern of daylight and darkness at night. Epidemiological studies indicate that shift work involving disruption of normal circadian rhythms is associated with increased risks of serious health conditions, like cardiovascular diseases, diabetes or cancer. It is also related to an increased risk of accidents or injury.

Since the identification of a non-visual photoreceptive mechanism that is instrumental in regulating physiological processes, the influence of light on circadian rhythms has been intensely studied. To better understand possible associations between shift work and health risks, field studies measuring 24-hour ambient light exposures and appropriate circadian markers are of great importance.

Workers' chronotypes, i. e. their preferred timing for sleep and waking activities in the absence of shifts and work schedules, are considered to be important to understanding the health effects of shift work. In the presence of circadian disruption, chronotypes prove more difficult to establish and chronotype-questionnaires may be poorly suited for this task. Additionally, the results of chronotyping shift workers may not predict their physiological responses to light and other time-cues in the manner expected. There are similar challenges in measuring and interpreting workers' light exposures.

We invite you to attend our workshop and to discuss with us these briefly outlined topics, as well as other issues related to light, health and shift work.

Contact

Information

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Workshop Venue

Federal Institute for Occupational Safety and Health (BAuA)
Friedrich-Henkel-Weg 1–25
44149 Dortmund
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How to find us:



Workshop

Light, health and shift work

13 October 2016
Dortmund, Germany

Overview

Objectives

The workshop will provide information on health and safety risks of shift work and discuss current challenges for epidemiological studies concerning data interpretation on the association between shift work and the incidence of chronic diseases. Discussions will be directed towards solutions for improving the size and quality of measurement-based field studies related to both the effects of light and of shift work on long-term health.

The workshop will consider the relevance of circadian markers and entrainment to shift work, including assessment and interpretation of shift workers chronotypes. Attention will also be focused on non-visual dosimetry and interpretation. There will be several presentations from separate European research groups with data from projects including light exposure and chronobiological measurements in shift workers.

Date

The workshop will be held on 13 October 2016, from 9.00 to 16.00.

Language

The workshop language is English.

Target group

Individuals interested in research into light exposure assessment and circadian responses to light, in determining chronotypes of shift workers in field studies as well as the health and safety consequences of shift work.

Registration

Online: www.baua.de/Termine

Registration is free, but you must register to attend.

Number of participants: Maximum of 70

Registration deadline is 1 September 2016.

Programme

THURSDAY, 13 OCTOBER 2016

9:00 **Registration**

9:30 **Welcome and introductory remarks**

Erik Romanus (BAuA, Dortmund)

Moderator: Debra Skene (University of Surrey, Guildford)

9:45 **Night and shift work in Germany**

Anne Marit Wöhrmann (BAuA, Dortmund)

10:00 **Relevance of chronotype and entrainment to shift work**

Katharina Wulff (University of Oxford)

10:20 **Epidemiology and shift work –**

Chronobiological fallacies

Thomas Erren (University of Cologne)

10:40 **Light measurements in the melanopsin age**

John O'Hagan (Public Health England, Didcot)

11:00 **Discussion**

11:15 COFFEE BREAK

Moderator: Erik Romanus (BAuA, Dortmund)

11:30 **Dosimetry – Making field studies comparable**

Luke Price (Public Health England, Didcot)

11:50 **Light exposure assessment of Danish indoor, outdoor and night-shift workers –**

Experiences from a field study

Jakob Marktvart (Aalborg University, Copenhagen)

Programme

12:10 **Chronotype and light exposure analysis in German and UK shift-working nurses**

Ljiljana Udovicic (BAuA, Dortmund)

Luke Price (Public Health England, Didcot)

12:40 **Discussion**

13:00 LUNCH BREAK

Moderator: Ljiljana Udovicic (BAuA)

14:00 **Light measurements in an epidemiological field study**

Sylvia Rabstein (Ruhr University, Bochum)

14:20 **Objective methods for estimating chronotype in the field**

Debra Skene (University of Surrey, Guildford)

14:45 **Chronotherapeutic lifestyle intervention studies in night shift workers**

Rainer Böger (University Medical Center Hamburg-Eppendorf, Hamburg)

15:05 **Influence of circadian rhythms on safety at work**

Jan Krüger (BAuA, Dresden)

15:25 **Discussion**

15:50 **Closing remarks**

John O'Hagan (Public Health England, Didcot)



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England

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