Shift work, health and well-being

Härmä M, Karhula K, Bjorvatn B, Garde AH, Hansen J, Hansen ÅM, Kolstad H, Larsen AD, Puttonen S, Tucker F, Vedaa Ø, Åkerstedt T

For affiliations and more information please see: https://www.ttl.fi/en/research-and-development-projects/wow/

Shift work is defined by the ILO and the European Directive 2003/88/EC as 'a method of organizing working time in which workers succeed one another so that the establishment can operate longer than the hours of work of individual workers'. The number of shifts (intensity), type of shifts (e.g. morning, evening and night), and the organization of consecutive shifts (e.g. rapidly or slowly rotating shift work) and the length of shift intervals can vary between or within different shift systems.

Shift work, health and well-being: new research from WOW

The findings of the WOW consortium give additional support for associations between exposure to shift work and

- disturbed sleep and fatigue, short and long sickness absence, accidental injuries and work-life balance
- rheumatoid arthritis, type-2 diabetes, hypertension and disability pensions
- miscarriage, hypertension and pre-eclampsia during pregnancy

WOW consortium found mixed results regarding the association between night shift work and breast cancer, mortality and dementia, and no support for an association between night shift work and prostate cancer.

Utilizing objective data on working hours, the WOW results strengthen especially the previous results regarding the association of night shifts and quick returns on sleep, occupational accidents and sickness absence.

Recommendations

At the organizational level, it is recommended that

- \checkmark The number of consecutive night shifts should be low, preferably a maximum of 3.
- ✓ Quick returns (<11 hours in between shifts) should be avoided, as ruled by the European Working Time Directive
- ✓ The use of quickly rotating shift systems (e.g. 2-3 consecutive night shifts) is recommended instead of the use of more slowly rotating schedules (4 or more consecutive night shifts). This recommendation does not include, however, some specific work settings like oil-rig platforms.

