Finnish Institute of
Occupational Health

Promoting Well-being and Recovery in Shift Work

Objective

The stress caused by shift work and irregular working hours can be reduced both by common methods in the work unit and by an employee's own methods.

Shift planning according to the Finnish Institute of Occupational Health's Working Hours Traffic Light Model supports well-being in shift work. Providing employees with opportunities to influence working hours can also improve well-being in shift work. Read more about these opportunities in the "Increasing opportunities to influence working hours and reducing commitment to work" method card!

Employees can also promote their own adaptation to shift work. It is important that information on good practical measures for coping with shift work is available at the workplace and also through the supervisor.

Study the measures and recommendations you can use to promote well-being and recovery in shift work.

The method card provides recommendations on how to plan shifts in the unit while promoting health as well as on employees' personal measures for adapting to shift work.

Steps

1. Use the FIOH Working Hours Traffic Light Model to estimate the load of shift rotations.
2. Find out if employees are familiar with the measures with which they can support their own adaptation to shift work.
3. Choose one or more concrete recommendation from the FIOH Working Hours Traffic Lights model with which you can promote recovery in shift work. The shift list must also take into account individual wishes as there are individual differences in recovery.
4. Implement the changes and monitor their effects not later than one year after their implementation.

How can you reduce the health hazards of shift work in the unit's shift planning?

Employers are required to assess the workload of shift work according to the Occupational Safety and Health Act.

The FIOH Working Hours Traffic Light Model can be used in planning the shifts (table below).

The assessment of shift ergonomics according to the FIOH Working Hours Traffic Light Model can be done with most shift planning software used in the social welfare and health care sector in Finland, making it easy to check compliance with the model with regard to each planning period.

Good shift ergonomics includes both ensuring adequate recovery through shift planning and taking into account individual wishes regarding shifts. The goal is to achieve a green light in the assessment of shift ergonomics, but this is not always possible. The priority is to avoid a red light. Red shift indicators increase the health risks of shift work, such as sleep-wake rhythm disturbances, accidents at work, and, in the long term, morbidity.

Recommendations of the FIOH Working Hours Traffic Light Model for the assessment of workload related to working hours.

	Recommended	Increased workload	Overload	High overload, not acceptable
1. Length of working hours				
Work period between two days off (hours)	≤40	>40–48	>48–55	>55
Length of work shift (hours, full-time job)	4–9	>09–12	>12–14	>14
Number of consecutive working days (full-time job)	3–5	6 or 2	7	≥8 or 1
2. Timing of working hours				
Number of morning shifts starting before 06:00 (3 weeks)	0–2	3–6	7–11	≥12
Number of consecutive evening shifts	0–3	4	5	≥6
Number of night shifts	0–2	3–6	7–11	≥12
Number of consecutive night shifts	0–2	3	4–5	≥6

	Recommended	Increased workload	Overload	High overload, not acceptable
3. Recovery				
Number of <11 h shift intervals between two days off	0	1	2	≥3
Number of <11 h shift intervals (3 weeks)	0–1	2–4	5–11	≥12
Free time after last night shift (hours)	>48	28–48	11–≤28	<11
Duration of weekly rest (Mon 00:00–Sun 24:00, hours)	>48	35–48	24–≤35	<24
4. Work-life balance				
Number of free weekends (Sat–Sun 3 weeks)	2–4	1	0	
Number of individual days off (3 weeks)	0–1	2–3	4	≥5
Number of split shifts (3 weeks)	0	1	2–3	≥4
5. Worktime control				
Employees can submit shift requests	Fulfilled		Unfulfilled	

In shift work, recovery is supported by shift planning, if

- it is ensured that shift intervals of less than 11 hours do not occur more frequently than once a week
- a continuous free time of at least 24 hours is allocated after the last night shift
- the number of consecutive shifts is limited to a maximum of six
- the shift list is planned for as long a period as possible, e.g. six weeks instead of three weeks
- shift requests are taken into account: e.g. more evening shifts for night owls, and more morning shifts for early birds. But be mindful of the red zone!

Continuous night work should always be voluntary, as intense night work increases many health risks, such as sickness absences. For this reason, it is important that the health status of those who are engaged in continuous night work is regularly monitored and, if necessary, night work is reduced.

In addition, think about:

- Is participatory shift scheduling suitable for your unit (see **method card 3: Increasing opportunities to influence working hours and reducing commitment to work**)? Participatory shift scheduling increases the opportunities to influence and discuss shifts.
- Does your unit have sufficient backup staff? Are all avenues for finding backup staff in use? A reasonable number of backup staff should be taken into account in the basic allocation of human resources.
- If the workload has increased due to staff shortage, can work processes and work tasks be developed or prioritized in the long term?
- Is it possible to improve the recruitment of additional workforce with individual working hours? For example, shorter working hours can be important for many employees with partial work ability or near retirement age.

Personal measures for adapting to shift work

Do the employees of the unit, including the most recent recruitments, have sufficient information on how to promote adaptation to shift work themselves? Individual measures related to sleep patterns, physical activity, diet and, for example, stress management can promote recovery in shift work in many ways.

Key recommendations for personal promotion of well-being in shift work

Recovery and sleep

- Allocate enough time for sleep every night.
- Try to take a nap before the first night shift.
- Do not sleep for too long after the last night shift so that you can also fall asleep the evening after the night shift.
- If possible, stay in the sunlight after the last night shift – for example, on the way home. This makes it easier to change the circadian rhythm.
- Prefer a nap if you have not been able to sleep enough due to heavy shifts. If you suffer from insomnia, avoid taking extra naps so that there is sufficient demand for a good night's sleep.
- If you feel tired during a night shift, increase your alertness by changing work tasks, taking a break, or moving.

Diet and exercise

- Have a meal before an evening shift or at the beginning of the evening shift.
- During a night shift, eat lightly and have your main meal at the beginning of the shift. Avoid heavy and fatty meals during the night shift.
- Avoid caffeine and excessive fluid intake, especially towards the end of the night shift.
- Have a light snack (fruit, sandwich, etc.) easily available.
- Exercise in a relaxing way. This improves the duration and quality of sleep. Most people should exercise no later than 2–3 hours before going to bed so that the quality of sleep is not compromised.

Social relationships, work and family

- Mark your work shifts on the family calendar. This means your family members will know when you need to be able to sleep peacefully.
- Agree with your family on how to share chores and discuss any common issues well before bedtime.
- If you are under stress at work, it usually helps to talk about your problems. Discuss any issues regarding your colleagues and supervisors you may have.

If shift work is excessively stressful, contact occupational health care.