

Longer breaks between shifts promote nurses' recovery from work

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Reducing short breaks between shifts helps nurses recover from work, according to a new study from Finland. The study analysed the effects of longer rest and recovery periods between shifts on heart rate variability, which is an indicator of recovery.

Shift work can increase the risk of many diseases, for example cardiovascular diseases. The increased risk is partially caused by insufficient recovery from work, which interferes with the normal function of the [autonomic nervous system](#) regulating heart function and blood pressure, among other things. Nurses have too little time for rest and recovery especially in the backwards-rotating shift system, which allows less than 11 hours of rest between the night and the morning shift.

The study participants were 39 female shift-working [nurses](#) with the mean age of 45 years. At the onset of the study, their shifts were adjusted in a more ergonomic direction, reducing the number of less-than-11-hour breaks between shifts by half. The nurses' recovery from work was analysed before the shift adjustment and one year after by conducting a survey and by recording heart [rate variability](#), indicative of the function of the autonomic nervous system. These recordings were performed while the nurses were on duty, off duty and during sleep.

The results show that adjusting the shifts in a more ergonomic direction further enhanced the nurses' recovery from work. The recovery from work was especially demonstrated by the nurses' higher parasympathetic activation and lower sympathetic activation of the autonomic [nervous](#)

[system](#) during the first hours of sleep. These positive changes during sleep are reflective of the body's recovery from stress and transition in a state of relaxation. Earlier research on recovery from shift work hasn't much focused on [heart rate variability](#) during sleep, despite it being one of the key indicators of recovery.

According to the researchers, the results show that in order to promote nurses' coping, ability to work and well-being at work, it is recommendable to use a forward-rotating shift system, in which a shift is always followed by a shift that begins later, i.e. a morning shift followed by an evening shift. This leaves sufficient time for [recovery](#) in between the shifts.

The study was carried out in cooperation between the University of Eastern Finland, the Finnish Institute of Occupational Health, and the City of Helsinki.

More information: "Effects of a reduction in the number of short intervals between work shifts on heart rate variability: A prospective field study of female nurses." *Clinical Nursing Studies* 2015, Vol.3, No. 3. [dx.doi.org/10.5430/cns.v3n3p118](https://doi.org/10.5430/cns.v3n3p118)

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