

Shift Work Impairs Cognition Over Time



An irregular work schedule can negatively influence health and socialisation due to a disruption of normal circadian rhythms. New research explored the impact of long-term shift work on cognition, and found that workers who were exposed to frequently changing schedules or odd work hours for more than ten years showed signs of cognitive impairment equal to 6.5 years of age-related decline. The study has been published in *Occupational and Environmental Medicine*.

Rotating Hours

The prospective cohort study examined 3,232 current and retired workers in southern France. 1,484 participants were employed or retired shift workers who worked a shift schedule at least 50 days per year, while 1,635 had no shift work experience. Approximately one fifth of the participants worked a schedule that involved rotating between morning, afternoon and night shifts.

The researchers, based at the University of Toulouse (France) and at the University of Swansea (UK), conducted tests of processing speed and both short- and long-term memory. Participants were evaluated at baseline and again five and ten years later. Participants were either 32, 42, 52 or 62 years old during the baseline screening in 1996.

Chronic Impact of Shift Work

According to the authors, disruption of the body's internal clock and natural rhythms may "generate psychological stressors, which may in turn affect the functioning of the brain." Circadian rhythms involve behavioural, mental and physical changes throughout a 24-hour period, affecting everything from body temperature to hormone release to sleep. This is why interruption of the rhythm can cause health problems, in addition to the cognitive impairments observed in the study.

The research results showed that the impaired cognition that is associated with working a shift schedule was worse for those who maintained such work patterns for a longer period of time. For participants whose shift work exceeded a decade, the associated loss of intellectual function was equivalent to 6.5 years of brain ageing.

A Reversible Impairment

According to the study, the negative impact on thinking caused by irregular work patterns is reversible — but it may take at least five years from the termination of shift work for employees to recover lost cognitive function. Nonetheless, this reversibility of shift work's chronic impact is an important finding, and the first of its kind to be published.

The consequences of impaired cognition in shift workers are significant not only for individuals but for society as a whole. The authors wrote: "The cognitive impairment observed in the present study may have important safety consequences not only for the individuals concerned, but also for society as a whole, given the increasing number of jobs in high hazard situations that are performed at night."

Source: CNN

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