

Shift work and long hours significantly increase risk of preterm birth: Study

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Shift work and working long hours significantly increase the chances of preterm birth, a Monash University-led study has found.

The researchers say that while the findings do raise concerns, most work roles can be modified to reduce the risk.

[Published](#) in *Public Health Reviews*, the [systematic review](#) and meta-analysis of 37 studies from 21 countries investigated the relationship between physical job risks and preterm birth before 37 weeks.

The study found that pregnant women who worked long hours, shift work, physically demanding jobs, or in jobs that exposed them to whole-body vibration, were at increased risk of preterm birth.

Among women in work, the risk was 63 percent higher for women whose jobs include [shift work](#). It was 44 percent higher for women who worked more than 40 hours per week than those who worked less than 40 hours.

The review also found moderate non-quantifiable evidence that jobs involving high physical exertion or whole-body vibration were linked with preterm birth.

There was no evidence of increased risk for women who stood at work for long periods or whose jobs required heavy lifting, defined as lifting more than 5kg at a time or more than 50kg over the course of a day.

First author and Ph.D. student Haimanot Abebe Adane, said this was the first review to assess such a wide range of physical job demands.

Mr. Adane, of Monash University's School of Public Health and Preventive Medicine Healthy Working Lives Research Group, said the study provided information that could be used to prevent preterm birth and its complications.

"This study is important because [preterm birth](#) has been linked with

[health complications](#) for children such as diabetes, hypertension, lung and heart disease later in adulthood," he said.

Preterm [birth](#) rates range from five to 18 percent across 184 nations. An estimated 15 million preterm births occur worldwide each year, with 1.1 million infant deaths as a result.

Study co-author, Monash University Professor Alex Collie, said it had important implications for both pregnant women and their employers.

"We know that work is generally good for health. We are not suggesting that pregnant women should not work," he said.

"This study shows that employers of pregnant women should consider modifying jobs that have heavy physical demands. Most jobs are able to be modified in some way to reduce exposure to physical tasks.

"It is also important that pregnant women who work in physically demanding jobs are aware of these findings. While everyone's job is different, we hope the study can support conversations between employers and [pregnant women](#) about ways of reducing risks," he said.

More than three-quarters of Australian women work throughout their reproductive age, a figure which has been growing in recent years as more women enter the workforce.

"As the number of Australian women in the workforce has increased, so has the number of women in physically demanding jobs. We need workplace policy and procedures that balance these risks while not limiting the workforce participation of women," Professor Collie said.

The authors called for more research on the risks and potential actions, including in Australia.

"We found a single study in Australia, and that one study reported data collected last century. Jobs have changed substantially over the past 20 years, and we need up-to-date evidence to develop effective workplace policy," Mr. Adane said.

More information: Haimanot Abebe Adane et al, Maternal Occupational Risk Factors and Preterm Birth: A Systematic Review and Meta-Analysis, *Public Health Reviews* (2023). [DOI: 10.3389/phrs.2023.1606085](https://doi.org/10.3389/phrs.2023.1606085)

Provided by Monash University

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