**Heavy lifting, shift work may harm women’s fertility: Study**

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A physically demanding job or work schedules outside normal office hours may lower a woman’s ability to conceive, a new study has warned.

The study published in the journalOccupational and Environmental Medicinefound that heavy lifting at work and rotating shift patterns were associated with poorer egg quality.

Researchers including those from Harvard TH Chan School of Public Health in the U.S. looked at indicators of ‘ovarian reserve’ — the number of remaining eggs and levels of follicle stimulating hormone (FSH), which rise as a woman ages and represent dwindling fertility — in 473 women attending one fertility clinic.

They also looked at ovarian response — the number of mature eggs capable of developing into a healthy embryo — in 313 of the women who had completed at least one cycle of in vitro fertilisation (IVF) by December 2015.

The average age of the women was 35, while their average body mass index (BMI) was 23 and they were all part of an ongoing (EARTH) study, which has been looking at environmental and dietary factors that might affect fertility since 2004.

The women were quizzed about the level of physical exertion required for their job and the hours and patterns worked, as well as leisure time physical and sedentary activities.

In all, four out of 10 women said that their job required them to regularly move/lift heavy objects and around one in four (22 per cent) said that their jobs were moderately to very physically demanding. Nine out of 10 (91 per cent) worked during normal office hours.

The number of remaining eggs, showed by ultrasound scan, ranged from eight to 17 among all 473 women, while the average number of mature eggs retrieved from the 313 undergoing an IVF cycle was nine.

Fewer mature eggs

The type of workload did not seem to make any difference to FSH levels, but women with physically demanding jobs had a lower reserve of eggs than those whose work did not regularly require heavy lifting.

Compared with those whose jobs did not entail heavy lifting, among women going through IVF, those with physically demanding jobs had a lower total reserve of eggs and fewer mature eggs, representing reductions of nearly nine per cent and nearly 14.5 per cent, respectively.

These differences were greater among women working in evening or night shifts: they had fewer mature eggs, on average, than those working shifts within normal working hours.

They were even greater among those specifically working evening and night shifts, possibly because of disruption to the body clock, said the researchers.

Women who were overweight (BMI of 25 and above) and whose job was physically demanding also had fewer mature eggs than those of the same weight who did not have to do any heavy lifting at work; this discrepancy was larger than it was among lean women.

A similar difference emerged between older (37 and above) and younger women. — PTI