Working Longer Hours Increases the Risk for Fatty Liver Disease

Working more than 40 hours per week was linked to a higher risk of non-alcoholic fatty liver disease.

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Working more than 40 hours a week—and especially working more than 60 hours—significantly increased the risk for non-alcoholic fatty liver disease (NAFLD), based on a study of the Korean population. These results were published in PLOS One.

Arising from the accumulation of fat in the liver, NAFLD and its more severe form, non-alcoholic steatohepatitis (NASH), are responsible for a growing proportion of advanced liver disease worldwide. As a result of inflammation, NAFLD can lead to the buildup of scar tissue (fibrosis), cirrhosis (advanced scarring) and even liver cancer. With no effective approved medical therapies, disease management relies on lifestyle changes, such as weight loss and exercise.

Working long hours has been linked to worse health, including elevated risk for diabetes, hypertension, obesity and other metabolic conditions. Woncheol Lee, of the Sungkyunkwan University School of Medicine in South Korea, and colleagues studied the link between working hours and the development of NAFLD.

To begin with, the team included 217,654 participants who were subjected to a thorough health exam between January 2012 and December 2017. They recruited 79,048 Korean adults without NAFLD at the time of study initiation. Using self-administered questionnaires, the researchers collected data on the participants' body mass index, blood pressure, working hours, smoking habits, alcohol intake, physical activity and history of metabolic diseases, like diabetes. The participants were grouped according to their weekly working hours. Through annual or biennial follow-up screenings, the researchers diagnosed NAFLD with the help of ultrasound scans.

At the beginning of the study, the average age was 36 years, and the mean body mass index was 22.2, indicating normal weight.

Over a follow-up period of 6.6 years, 15,095 individuals were newly diagnosed with NAFLD, with an incidence rate of 5.55 per 100 person-years. Compared to those with the fewest working hours (35 to 40 hours per week), the risk for NAFLD was significantly higher for people who worked between 41 and 52 hours, 53 and 60 hours or more than 60 hours. The association remained after

controlling for body weight and other factors.

“In this large-scale cohort, long working hours, especially [greater than] 60 working hours a week, were independently associated with incident NAFLD,” wrote the researchers. “Our findings indicate that long working hours are a risk factor for NAFLD.”

They noted that the mechanisms by which working hours affect the development of NAFLD are not fully understood but suggested inadequate sleep or increased psychological stress might play a role.

Click here to read the study in PLOS One.

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