

presentation at ENDO 2020, the Endocrine Society's annual meeting, and publication in a special supplemental section of the *Journal of the Endocrine Society*.

"Overwork is a prevalent problem threatening the health and safety of workers worldwide," said principal investigator Young Ki Lee, M.D., of the National Cancer Center in Goyang-si, South Korea. "To our knowledge, this study is the first to show that long working hours are associated with hypothyroidism."

Lee said the researchers found a higher risk of hypothyroidism with long working hours regardless of the workers' socioeconomic status or sex, even though this common thyroid disorder affects women more than men.

They conducted the study using data from 2,160 adult full-time workers who participated in the Korea National Health and Nutrition Examination Survey from 2013 to 2015. The investigators identified hypothyroidism from records of the participants' thyroid bloodwork.

Hypothyroidism occurred at more than twice the rate in participants who worked 53 to 83 hours weekly versus those who worked 36 to 42 hours each week (3.5% versus 1.4%), the researchers reported. For each 10-hour increase in the workweek, individuals who worked longer hours had an increased odds for hypothyroidism compared with those who worked 10 hours less (odds ratio 1.46), Lee said.

Lee stressed the need for further studies to determine whether long working hours cause hypothyroidism, which is a known risk factor for heart disease and diabetes.

"If a [causal relationship](#) is established," he said, "it can be the basis for recommending a reduction in working hours to improve thyroid function

among overworked individuals with hypothyroidism. Additionally, screening for hypothyroidism could be easily integrated into workers' health screening programs using simple laboratory tests."

South Korea passed a law in 2018 that reduced the maximum number of working hours from 68 to 52 per week. "If long working hours really cause hypothyroidism," Lee said, "the prevalence of hypothyroidism in Korea might decrease slightly as the working hours decrease."

Hypothyroidism can cause tiredness, depression, feeling cold, and weight gain. However, Lee said most of the study participants with [hypothyroidism](#) had a mild (subclinical) form that often does not yet cause symptoms.

Provided by The Endocrine Society

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