SHIFT WORK ASSOCIATED WITH HIGHER DIABETES RISK

People who work on a shift schedule may be at increased risk for developing type 2 diabetes, according to a new study.

In findings published July 24 in the journal Occupational & Environmental Medicine, workers on a shift schedule were 9% more likely to develop type 2 diabetes than were those working regular office hours. This risk was highest in men and those working rotating shifts.

The link between shift work and diabetes can be attributed to a number of biological factors, including interference with circadian rhythms and poor sleep quality, which may worsen insulin resistance.

Dr Yong Gan and his colleagues at the Huazhong University of Science and Technology in Hubei, China, analysed 12 studies with a total of 226 652 study participants, of whom 14 595 had type 2 diabetes.

Shifts were divided into five categories: rotating shifts, irregular shifts, night shifts, mixed shifts, and evening shifts. The study found that workers on rotating shifts were at the greatest risk of developing type 2 diabetes, with a 42% increase in risk, compared with workers who never did shift work. This is likely because rotating shift work often disrupts the body's natural sleep and eating patterns, resulting in increased stress, Dr Gan and his associates wrote.

"In most cases, the human body was exposed to continuous stress from attempts to adjust as quickly as possible to the varying working hours, but at the same time was frustrated by the continuous shift rotation," the investigators said. "Consequently, the health effect on the rotating shift groups may be more profound and pronounced than for other shift groups."

Additionally, among shift workers, men were 37% more likely than women to develop the disease, because of repeated disruption of the circadian system in men, which may adversely affect androgen secretion and lead to a greater risk of developing diabetes, the authors wrote.

The authors cited some limitations to their analysis. Shift work was not clearly defined in many original studies used in the analysis, which may have affected the results. Also, different definitions of shift exposure and diabetes outcome across studies may have resulted in heterogeneity in the results.

In addition, "more prospective and interventional studies are needed to explore the underlying mechanism and to determine the cause and effect relationships of gender difference" that link shift work and diabetes, they wrote.

Source: http://www.practiceupdate.com/news/5701