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Summary of research

Key words: Shift work, sleep, cancer and cardiovascular disease

Shift work, and in particular night work, has been linked in several studies to an increased risk of several common diseases including certain cancers, cardiovascular disease and type 2 diabetes. However, other studies have not found such associations and it is unclear why risk of these diseases might be higher among shift workers. Possible reasons include the harmful effects of disturbed patterns of certain hormones due to electric light at night, shift workers having disturbed sleep or shift workers being more likely to have known lifestyle risk factors for disease.

To better understand the possible relationship between shift work and disease, we aim to compare the characteristics of UK Biobank participants who have and have not done shift work or night work. In subsequent phases of the project we propose to examine the relationships between shift work, sleep and subsequent risks of breast cancer, prostate cancer, cardiovascular disease, diabetes and death. These phases will be conducted when at least 2000 incident cases of each endpoint have accrued in UK Biobank. This project will contribute towards a fuller understanding of a potentially important and modifiable occupational risk factor for several common diseases.