Prediction of liver fat in people with and without type 2 diabetes: an IMI DIRECT study

**Background and aims:** Non-alcoholic fatty liver disease (NAFLD) is highly prevalent and causes serious health complications in type 2 diabetes (T2D) and beyond. In NAFLD, triglycerides accumulate in hepatocytes, promoting hepatic gluconeogenesis, and thereby raising risk of T2D or exacerbating the disease pathology. Liver biopsy, MRI scans, ultrasounds and liver enzyme tests are often used for NAFLD diagnosis, but the invasive nature of biopsies, the high costs of the MRI scans and ultrasounds and the low accuracy of liver enzyme tests are significant limitations. Here, we aim to derive a prediction tool for NAFLD by applying machine learning approaches to the extensive phenotypic data obtained in participants with pre-diabetes or diabetes cohorts from IMI DIRECT.

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