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**Metabolic dysfunction-associated steatohepatitis (MASH) resolution index**

Loomba R, Amangurbanova M, Bettencourt R, et al. [MASH Resolution Index: development and validation of a non-invasive score to detect histological resolution of MASH.](https://gut.bmj.com/content/73/8/1343) Gut 2024; 73: 1343-1349. doi: 10.1136/gutjnl-2023-331401

Metabolic dysfunction-associated steatohepatitis (MASH) is a type of metabolic dysfunction-associated steatotic liver disease (MASLD) and can lead to cirrhosis, hepatic decompensation, and hepatocellular carcinoma. The global prevalence of MASH is over 14%. There is an unmet need for effective therapies, but current MASH resolution assessment in research settings requires a liver biopsy which has well-known limitations. In this study, Loomba et al., proposed a novel MASH Resolution Index, combining MRI proton-density-fat fraction (MRI-PDFF), alanine aminotransferase (ALT), and aspartate aminotransferase (AST). This model was derived from a cohort of 95 adult participants, who had laboratory tests, paired MRI-PDFF and liver biopsy at two time points. Predictive performance of the model was assessed using area under the receiver operating curve (AUC), the lowest Akaike information criterion and Bayesian information criterion.

The most accurate model with the highest AUC was externally validated in a distinct cohort of 163 participants with MASH from a clinical trial. Median (IQR) age and body mass index (kg/m2) for the derivation and validation cohort were 55.0 (44.5–61.5) years and 56.0 (48.0–62.0) years, and 32.0 (30.0–37.0) kg/m2 and 36.5 (32.2–40.2) kg/m2 respectively. MASH resolution index demonstrated an AUC of 0.81 (95% CI 0.69 to 0.93) for detecting MASH resolution in the derivation cohort and performed robustly in an external validation cohort with an AUC of 0.83 (95% CI 0.76 to 0.91), outperforming changes in ALT and MRI-PDFF. The proposed MASH Resolution Index may have a role in the non-invasive assessment of MASH resolution both in research and clinical settings.