Reducing excessive fat in the liver and its importance for the prevention and management of type 2 diabetes

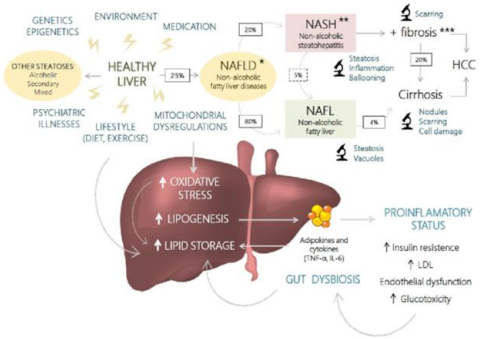
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Abstract (300 word limit)

Nonalcoholic fatty liver disease (NAFLD), the most widespread chronic liver disease worldwide, confers a significant burden on health systems and leads to increased mortality and morbidity through several extrahepatic complications. NAFLD comprises a broad spectrum of liver- related disorders, including steatosis, cirrhosis, and hepatocellular carcinoma. It affects almost 30% of adults in the general population and up to 70% of people with type 2 diabetes (T2DM), sharing common pathogenetic pathways with the latter. In addition, NAFLD is closely related to obesity, which acts in synergy with other predisposing conditions, including alcohol consumption, provoking progressive and insidious liver damage. Among the most potent risk factors for accelerating the progression of NAFLD to fibrosis or cirrhosis, diabetes stands out. Despite the rapid rise in NAFLD rates, identifying the optimal treatment remains a challenge. Interestingly, NAFLD amelioration or remission appears to be associated with a lower risk of T2DM, indicating that liver-centric therapies could reduce the risk of developing T2DM and vice versa. Consequently, assessing NAFLD requires a multidisciplinary approach to identify and manage this multisystemic clinical entity early. With the continuously emerging new evidence, innovative therapeutic strategies are being developed for the treatment of NAFLD, prioritizing a combination of lifestyle changes and glucose-lowering medications. Based on recent evidence, this review scrutinizes all practical and sustainable interventions to achieve resolution of NAFLD through a multimodal approach.

Keywords: fatty liver disease, fibrosis, resolution of NAFLD, diabetes mellitus, lifestyle approaches, glucose-lowering drugs

Image



Recent Publications (minimum 5)

1. 1. Younossi ZM, Koenig AB, Abdelatif D, Fazel Y, Henry L, Wymer M. Global epidemiology of nonalcoholic fatty liver disease—meta-analytic assessment of prevalence, incidence, and outcomes. Hepatology 2016 Jul;64(1):73-84. doi: 10.1002/hep.28431. Epub 2016 Feb 22. PMID: 26707365.
2. Gastaldelli A, Cusi K, Fernández Landó L, Bray R, Brouwers B, Rodríguez Á. Effect of tirzepatide versus insulin degludec on liver fat content and abdominal adipose tissue in people with type 2 diabetes (SURPASS-3 MRI): a substudy of the randomised, open-label, parallel-group, phase 3 SURPASS-3 trial. Lancet Diabetes Endocrinol. 2022 Jun;10(6):393-406. doi: 10.1016/S2213-8587(22)00070-5. Epub 2022 Apr 22. PMID: 35468325.
3. Mantovani A, Petracca G, Beatrice G, Csermely A, Lonardo A, Targher G. Glucagon-Like Peptide-1 Receptor Agonists for Treatment of Nonalcoholic Fatty Liver Disease and Nonalcoholic Steatohepatitis: An Updated MetaAnalysis of Randomized Controlled Trials. Metabolites. 2021 Jan 27;11(2):73. doi: 10.3390/metabo11020073. PMID: 33513761; PMCID: PMC7911747.
4. Pan CS, Stanley TL. Effect of Weight Loss Medications on Hepatic Steatosis and Steatohepatitis: A Systematic Review. Front Endocrinol (Lausanne). 2020 Feb 21;11:70. doi: 10.3389/fendo.2020.00070. PMID: 32153507; PMCID: PMC7046622.
5. Pose E, Trebicka J, Mookerjee RP, Angeli P, Ginès P. Statins: Old drugs as new therapy for liver diseases? J Hepatol. 2019 Jan;70(1):194-202. doi: 10.1016/j.jhep.2018.07.019. Epub 2018 Aug 1. PMID: 30075229.

Photograph



Biography (150 word limit)

Dr Tsamos is a doctor with a keen interest in Non-Alcoholic Fatty Liver Disease (NAFLD) and general gastroenterological conditions. He has graduated from the Aristotle University of Thessaloniki in 2017 and has been working since then as a doctor in Greece and the UK. He has experience and expertise of dealing with various medical conditions and has worked in various clinical places. Having graduated recently from two master's degrees in Medical Research Methodology and Clinical Nutrition is steadily building a strong clinical and research portfolio. Currently working as a Gastroenterology Clinical Fellow in Norfolk and Norwich University Hospital in the NHS.

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Notes/Comments: