

## Non-alcoholic fatty liver disease in type 2 diabetes

**Mona H. Ismail**  
University of Dammam, Saudi Arabia

Non-alcoholic fatty liver disease (NAFLD) is a common disorder and its prevalence is expected to increase due to the rising incidence of type 2 diabetes mellitus (T2DM) and obesity. Insulin resistance and oxidative stress play an important role in NAFLD development and progression. NAFLD includes a wide spectrum of liver damage, ranging from simple steatosis to steatohepatitis and advanced fibrosis. Nonalcoholic steatohepatitis (NASH), a histological subtype of NAFLD characterized by hepatocyte injury and inflammation, is present in approximately 10% of patients with T2DM and is associated with an increased risk for the development of cirrhosis and liver-related death. Both T2DM and NAFLD are associated with adverse outcomes of the other; T2DM is a risk factor for progressive liver disease and liver-related death in patients with NAFLD, whereas NAFLD may be a marker of cardiovascular risk and mortality in individuals with T2DM. Noninvasive, simple, reproducible, and reliable biomarkers are needed to develop novel therapies for patients with NASH. Current treatment strategies aim to improve insulin resistance via weight loss and exercise, improve insulin sensitivity by the use of insulin-sensitizing agents (for example, pioglitazone) and reduce oxidative stress by the use of antioxidants, such as vitamin E. Pioglitazone and vitamin E supplementation show some promise in improving liver histology in patients with NASH. Bariatric surgery is gaining momentum for the treatment of obesity associated with comorbidities, such as T2DM and NASH, with long-term reports of reduction in overall mortality.

### Biography

Ismail graduated from the College of Medicine at King Faisal University in 1992 and completed her internal medicine residency training in 1996 and got her Internal Medicine Board Certification/Fellowship in 1997. She then pursued further training in Canada and did two year GIT Fellowship training at McMaster Medical Center in Hamilton followed by one year Hepatology Fellowship training at Toronto University. She has published in several national and international journals. She is the only Female Hepatologist in the Saudi Arabia and neighboring Gulf countries.

[mismail.md@gmail.com](mailto:mismail.md@gmail.com); [moismail@ud.edu.sa](mailto:moismail@ud.edu.sa)