

LIVERFAST™

Fibrosis • Activity • Steatosis



Up to 75% of people with advanced chronic liver disease NASH have type 2 Diabetes

Non-Alcoholic Fatty Liver Disease (NAFLD) is now the most common cause of liver disorder in the United States and other Western industrialized countries.

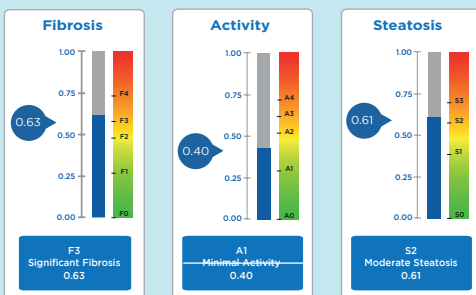
There is a bidirectional association between NAFLD and type 2 diabetes:

- The risk of incident diabetes is more than 2-fold higher in individuals with NAFLD

Patients with NAFLD and multiple risk factors such as diabetes and hypertension are at the highest risk of adverse outcomes.

“Cryptogenic” cirrhosis is disproportionately high in those with diabetes and is now is on a trajectory to become the most common indication for liver transplantation in the U.S.

LIVERFAST™



LIVERFAST™ is a blood based diagnostic test that combines 10 biomarkers and algorithm technology to determine the fibrosis, activity and steatosis stages of the liver.

LIVERFAST™ utilizes the following biomarkers:

- alpha-2-Macroglobulin
- Haptoglobin
- Apolipoprotein A1
- Total Bilirubin
- GGT
- ALT (P5P)
- AST (P5P)
- Fasting Glucose
- Triglyceride
- Total Cholesterol

LIVERFAST™ provides the right diagnosis of liver disease conditions in type 2 diabetes patients

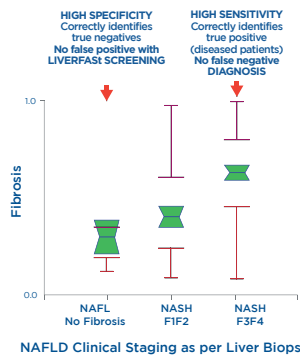
Compared to your routine liver test, **LIVERFAST™** gives you the edge in identifying non-invasively the complete spectrum of the liver disease by quantifying steatosis, fibrosis and steatohepatitis conditions.

Screening for liver fibrosis should be done for all patients with types 2 diabetes and age more than 50 years even if the biochemical liver tests are normal.

Why use LIVERFAST™?

LIVERFAST™ provides a complete diagnosis, has better applicability and reliability compared to other routine liver test such as LFT, ultrasound or TE and it is more adapted to overweighted patients than ultrasound based methods and correlates with the severity of cirrhosis.

Type 2 Diabetes & NAFLD Diagnosis: LIVERFAST™ Highly Correlates with Liver Biopsy Staging



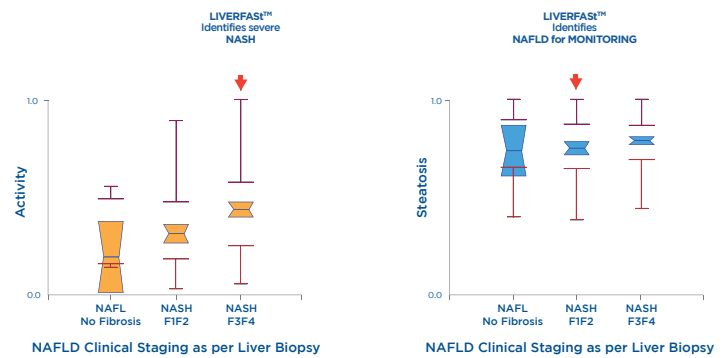
NAFL
Steatosis only (Steatosis ≥ S1, no fibrosis F0)

NASH F1F2
Steatohepatitis with minimal fibrosis (Steatosis ≥ S1, fibrosis F1 or F2 stages)

NASH F3F4
Steatohepatitis with severe fibrosis (Steatosis ≥ S1, fibrosis stage F3 or cirrhosis F4 stages)

De Ledington V., et al. Hepatology 2020;72:1906A

LIVERFAST™ Screening for NAFLD in patients with Metabolic Syndrome (MetS) and Diabetes



MetS Factors evaluated

- Diabetes (T2DM)
- Arterial Hypertension
- Triglycerides
- HDL Cholesterol
- Obesity

De Ledington V., et al. Hepatology 2020;72:1906A

1. Diagnose fibrosis and cirrhosis with similar performance in diabetic compared to non-diabetic patients

- **Better applicability** compared to elastographic methods
- **High AUROC for cirrhosis:** 0.83 (0.74-0.89) and 0.79 (0.72-0.84) in both non-diabetics and diabetics, respectively (p=ns)
- **Identifies cirrhosis** and therefore, the risk of developing primary liver cancer

2. Estimate the steatohepatitis related activity more accurate than LFT and aid to identify severe NASH (>A2F2)

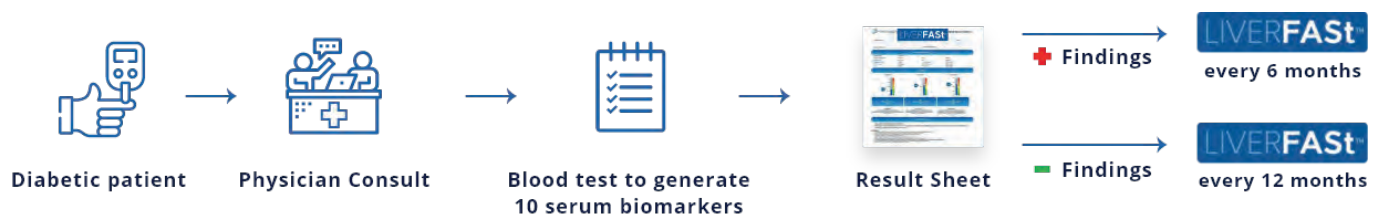
3. Monitoring: Easily repeatable for the assessment of disease regression

4. Adapted to obesity: Better accuracy for quantifying steatosis in severe obese (BMI>35kg/m2) than ultrasound based methods (B mode or CAP)

LIVERFAST™ scores increasing with the number of metabolic factors

- Identifies presence of fatty liver disease (NAFLD) among patients with metabolic syndromes
- Determines the presence of liver injury for patient with heart disease, stroke, hypertension, diabetes, obesity and hypertriglyceridemia conditions
- Screen early to late stage NAFLD patients - from simple steatosis, to cirrhosis and end stage liver failure
- Superior to elastography for patients with severe obesity, severe steatosis and inflammation

How LIVERFAST™ works?



To learn more, visit www.fibronostics.com or share the brochure with your physician

References

- Chalassani N., et al. Hepatology, 67: 328-357.
- Aravind A., et al. Journal of Intelligent Learning Systems and Applications. 2020;12:31-49.
- De Ledington V., et al. Hepatology 2020;72:1(Suppl):906A
- Raskin M., et al. Hepatology 2020;72:1(Suppl):273A
- Cohn B., et al. Hepatology 2020;72:1(Suppl):943A