

# Introduces Shear Wave Elastography

Beyond being a marker of injury, liver fibrosis plays a direct role in the pathogenesis of hepatocellular dysfunction and portal hypertension. This process includes patients with NASH, NAFLD or Alcoholic Steatosis as well as chronic hepatitis B or C. Liver biopsy is the gold standard in diagnosing cirrhosis but is poorly suited for active monitoring due to expense and co-morbidity.

Philips ElastQ enables us to perform Shearwave Elastography to quantify the extent of liver fibrosis with a fast, non-invasive test. This software uses confidence maps, multiple samples and real-time elastography to ensure maximal accuracy when predicting extent of liver fibrosis with Shear Wave Technology.

This can be of great use in counselling and monitoring progression of disease. Accurately staging the degree of liver fibrosis is essential in determining if antiviral therapy is appropriate, and to predict treatment outcome and potential for malignancy.

Elastography at High St X Ray is always performed in conjunction with a full hepatobiliary system ultrasound assessment, ensuring other pathologies are not missed.



## Who is it for?

- It is useful in patients with clinically suspected liver disease before other abnormalities are detected with ultrasound.
- Evaluating a baseline "stiffness" value in patients with chronic liver disease.
- Counselling patients on their long-term risk of cirrhosis.
- Follow up of patients after medical treatment or those instituting lifestyle changes to monitor progression, stabilisation or regression of disease.
- Helping specialists determine the utility of antiviral treatments and help predict both outcome of treatments and risk of malignancy.
- It is safe, inexpensive and a reliable marker of fibrosis.

## Who is it not for?

- Patients with acute hepatitis.
- Patients with obstructive cholestasis.
- Patients with suspected liver congestion due to right heart failure.
- Patients currently receiving Hepatitis C treatment.
- Histopathology obtained via biopsy is still the Gold Standard for assessing liver fibrosis.

## How do I understand the results?

- Your patient will receive a report of the full ultrasound of the hepatobiliary system and spleen, documenting any pathologic changes.
- They will also receive a stiffness measurement of the liver parenchyma in kPa, along with a correlative Metavir Staging Score.

LIVER FIBROSIS CLASSIFICATION	METAVIR SCORE	SHEAR WAVE KPA RANGE
Normal - Mild	F0 - F1	<6.43
Mild - Moderate	F2	6.43 - 9.54
Moderate - Severe	F3	9.54 - 11.34
Cirrhosis	F4	>11.34

## What is a Metavir Staging Score?

- A Metavir Staging Score is a histopathological grading system used to assess the extent of fibrosis in a patient with liver disease. Activity Grades indicate the degree of inflammation (specifically necro-inflammatory change) and Staging Score indicates the degree of fibrosis or scarring. It has been shown to correlate well with Shear Wave Elastography measurements.

## How does it help?

- Elastography can be used to help identify and counsel patients that need to make lifestyle changes to reduce their long-term risk of cirrhosis, portal hypertension, varices and HCC risk.
- Progressive fibrosis may indicate that the patient requires increasing surveillance with gastroscopy (for varices) and MR surveillance (for HCC) +/- tertiary centre referral.

**OPEN MONDAY TO FRIDAY 8.30am – 5.30pm**

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