

## INTRODUCING

# Shear Wave Elastography

*Mayfair Diagnostics Regina is pleased to offer a sub-specialized, multidisciplinary ultrasound service called shear wave elastography (SWE) – a non-invasive assessment of liver fibrosis by quantifying liver tissue stiffness.*

This procedure directs painless, low-frequency vibrations into the liver, creating a visual map of liver stiffness and providing a quantitative measurement. The preparation for this study is the same as an abdominal ultrasound exam.

## When to Refer for Elastography

**Elastography is appropriate for the following indications:**

- Suspected or known NAFLD:
  - Risk factors for NAFLD (obesity, Type II diabetes, hyperlipidemia, metabolic syndrome, etc.).
  - Fatty liver found on imaging (CT, MRI, ultrasound, etc.).
  - Abnormal ALT or AST.
- Excessive alcohol consumption.
- Other causes of chronic liver disease (e.g. viral hepatitis, hemochromatosis, autoimmune disorders, etc.).
- Any patient if concerned about liver fibrosis, or if you want reassurance that the liver is normal.
- Patients with unknown liver disease, but with abnormal liver enzymes.

## Recommendations for Liver Stiffness Values for NAFLD

LIVER STIFFNESS VALUES	RECOMMENDATION <sup>1</sup>
≤5 kPa (1.3 m/sec)	High probability of being normal
<9 kPa (1.7 m/sec)	In the absence of other known clinical signs, rules out cACLD. If there are known clinical signs, many need further tests for confirmation.
9-13 kPa (1.7-2.1 m/sec)	Suggestive of cACLD, but need further tests for confirmation.
>13 kPa (2.1 m/sec)	Rules in cACLD.
>17 kPa (2.4 m/sec)	Suggestive of CSPH.

**Note:** NAFLD – nonalcoholic fatty liver disease, cACLD – compensated advanced chronic liver disease, CSPH – clinically significant portal hypertension.

1. Barr, R.G.; Wilson, S.R.; Rubens, D.; et al. "Update to the Society of Radiologists of Ultrasound Liver Elastography Consensus Statement." *Radiology* 2020; 296:263-274.