

Endocrine & Diabetes Plus Clinic of Houston

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PATIENT HANDOUT
Fatty Liver Testing

Preparing for Your

FibroScan — Fatty Liver Ultrasound Test

WHAT IS A FIBROSCAN?

A **FibroScan** (vibration-controlled transient elastography) is a quick, painless, non-invasive ultrasound-based test that measures two things about your liver:

- **CAP Score (Controlled Attenuation Parameter)**
Measures the amount of fat in your liver (steatosis). Higher = more fat.
- **Liver Stiffness Score (kPa)**
Measures scarring/fibrosis in the liver. Higher = more stiffness/scarring.

Unlike a regular liver ultrasound, FibroScan can detect and quantify both fat content and early scarring. It is used by your endocrinologist to monitor fatty liver disease (NAFLD/MASLD), which is closely linked to insulin resistance, prediabetes, and type 2 diabetes.

PREPARATION — THIS IS CRITICAL FOR ACCURATE RESULTS

FibroScan results are **directly affected by food, alcohol, and exercise** in the hours before the scan. Eating causes the liver to process fats and increase blood flow, which artificially stiffens liver tissue and inflates the CAP (fat) score. Alcohol causes liver inflammation. Exercise elevates liver enzymes. **Please follow these instructions exactly** to ensure your results are reliable.

- ✓ **Fast for at least 2 hours before your appointment** — ideally 3–4 hours for the most accurate fat score. Water is allowed at any time.
- ✓ **No alcohol for at least 24 hours** before the test — even a small amount can cause liver inflammation and falsely elevated stiffness.
- ✓ **No vigorous exercise for 24 hours** before your scan. Light walking is fine.
- ✓ **Take your regular medications as usual** unless your doctor has said otherwise — most medications do not affect FibroScan.
- ✓ **Wear comfortable, loose-fitting clothing** that allows easy access to your right side and abdomen.

WHAT TO AVOID BEFORE YOUR SCAN

- Heavy meals — avoid for 3–4 hours before**

Eating a large, fatty, or high-carbohydrate meal causes your liver to actively process nutrients, which temporarily increases liver stiffness and fat signal. This can make your results look worse than they actually are.
- Alcohol — avoid for at least 24 hours**

Even moderate alcohol consumption causes acute liver inflammation (hepatitis effect), which directly elevates stiffness scores and can falsely suggest fibrosis.
- Vigorous exercise — avoid for 24 hours**

Strenuous physical activity (running, weightlifting, HIIT) significantly raises AST and ALT liver enzymes and can temporarily elevate stiffness readings.
- Coffee on the morning of the scan (if fasting)**

If your appointment is in the morning and you are in your fasting window, avoid coffee until after the scan. Black coffee can be taken if you are well outside the 2-hour fasting window.

WHAT TO EXPECT DURING THE TEST

- 1 You will lie on your back on an exam table with your right arm raised behind your head.
- 2 A small probe (similar to an ultrasound wand) is placed on the skin over your right side, between your ribs.
- 3 The probe sends gentle vibrations into the liver and measures how fast they travel (liver stiffness) and how much signal is absorbed (fat content). You may feel a mild, painless buzzing sensation.
- 4 The technician takes 10 measurements and the device calculates your scores automatically.
- 5 The entire test takes about 10–15 minutes. There is no radiation, no needles, and no contrast dye.

UNDERSTANDING YOUR RESULTS

Liver Stiffness Score (Fibrosis) — kPa

NORMAL (F0–F1)
< 7.0 kPa

No significant scarring.
Monitor and continue lifestyle measures.

MILD FIBROSIS (F1–F2)
7.0 – 9.5 kPa

Early scarring. Lifestyle changes are most effective at this stage.

MODERATE (F2–F3)
9.5 – 12.5 kPa

Significant fibrosis. Closer monitoring and treatment needed.

ADVANCED (F3–F4)
> 12.5 kPa

Likely advanced fibrosis or early cirrhosis. Specialist care recommended.

CAP Score (Liver Fat / Steatosis) — dB/m

<p>MINIMAL FAT (S0) < 248 dB/m Less than 5% fat in the liver. Normal range.</p>	<p>MILD FAT (S1) 248 – 267 dB/m 5–33% fat. Mild steatosis. Diet changes recommended.</p>	<p>MODERATE FAT (S2) 268 – 279 dB/m 33–66% fat. Lifestyle intervention is important.</p>	<p>SEVERE FAT (S3) > 280 dB/m More than 66% fat. Significant steatosis, needs active treatment.</p>
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Important: Your doctor will always interpret your results in context — including your weight, liver enzyme levels (ALT/AST), blood sugar control, and overall metabolic health. A single FibroScan number is never interpreted in isolation.

FREQUENTLY ASKED QUESTIONS

Q: Why did my endocrinologist order this instead of a GI doctor?

Fatty liver disease (NAFLD/MASLD) is closely tied to insulin resistance, prediabetes, type 2 diabetes, and hormonal conditions like PCOS. Endocrinologists routinely monitor liver health as part of metabolic care.

Q: Does fasting really matter that much?

Yes — significantly. Studies show that eating within 2 hours of the scan can increase your CAP (fat) score by 30+ dB/m and elevate stiffness readings. A non-fasted scan may look much worse than your actual liver health. Please fast for at least 2–3 hours.

Q: Is the test painful?

No. The probe delivers a mild, painless tapping or vibrating sensation. Most patients find it completely comfortable.

Q: Does body size affect accuracy?

Yes. In patients with a higher BMI or significant abdominal adiposity, the probe may have difficulty reaching the liver, and more readings may be flagged as unreliable. The technician will let you know if this is an issue.

Q: My result was labeled 'unreliable' or showed a high IQR/M ratio. What does that mean?

The device measures consistency between its 10 readings. If there is too much variation (IQR/M > 0.3), the result is flagged as less reliable. This is more common with obesity, difficulty holding still, or meals taken too close to the test. Your doctor may recommend repeating it under better conditions.

Q: Can my FibroScan results improve over time?

Yes — and this is one of the most encouraging aspects of catching fatty liver early. Both CAP and stiffness scores can decrease significantly with weight loss, improved blood sugar control, reduced alcohol, and appropriate medical treatment. Repeat scans track your progress.

Q: Is FibroScan the same as a liver ultrasound?

No. A standard ultrasound shows liver anatomy and can detect gross abnormalities, but cannot reliably quantify fat percentage or measure fibrosis/stiffness. FibroScan is specifically designed to measure these two things and is far more sensitive for early and intermediate liver disease.

<p>Questions? Contact Us Phone / Text: 832-968-7003 endocrineplus.com Sugar Land: 1441 Hwy 6, Ste 100 Memorial City: 915 Gessner Rd., Ste 300</p>	<p>For medical emergencies, call 911. This handout is for informational purposes only and does not replace your doctor's instructions.</p>
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