LiverSmart®

A Multiparametric Analysis of
Liver Tissue Composition
Combining FerriSmart and HepaFatSmart

Report No:	Sample_Report	Scan Date:	01 Jan 2023
Patient ID:	ABC-123456789	Analysis Date:	09 Oct 2023
Name:	LiverSmart-AI	Referrer:	Dr Test
Birth Date:	01 Jan 2018	MRI Center:	Resonance Health

SUMMARY OF RESULTS

Average Liver Iron Concentration

1.4 mg/g dry tissue	25 mmol/kg dry tissue
[95% CI: 1.0 - 1.9]	[95% CI: 18.4 - 34.6]
(NR: 0.17 - 1.8)	(NR: 3 - 33)

For further details, see the Liver Iron Concentration Report

Liver Fat Assessment

	Result	95% CI (Confidence interval)	Normal Range
VLFF (Volumetric Liver Fat Fraction)	**2.2%**	1.9 - 2.5	0 - 4.1
PDFF (Proton Density Fat Fraction)	**2.6%**	2.2 - 3.0	0 - 4.8
Steatosis Grade	**0**		0

For further details, see the Liver Fat Assessment Report

If you have questions on the current analysis result, please contact Resonance Health at support@resonancehealth.com.

Liver Iron Concentration Report

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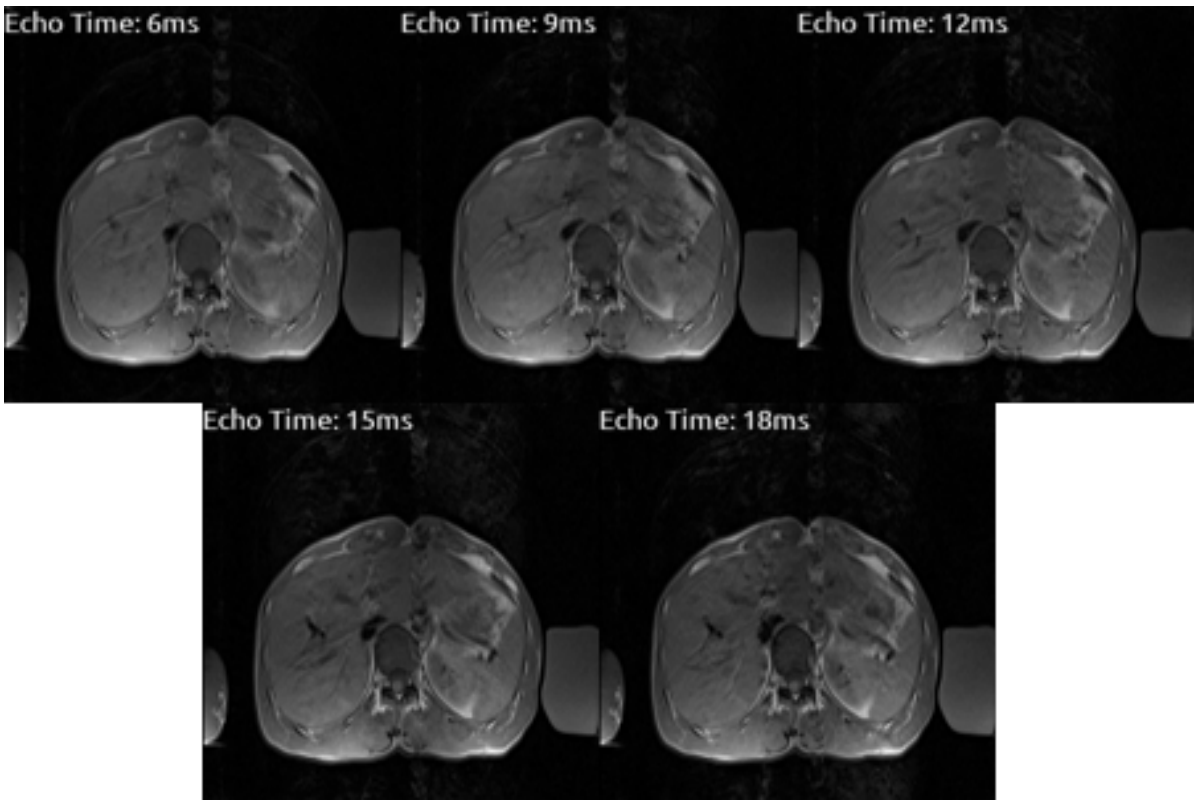
Average Liver Iron Concentration:

1.4 mg/g dry tissue
[95% CI: 1.0 - 1.9]
(NR: 0.17 - 1.8)

25 mmol/kg dry tissue
[95% CI: 18.4 - 34.6]
(NR: 3-33)

The 95% confidence intervals [95% CI] are derived from a study of repeat measurements by St Pierre et al., HemaSphere 2018;2: 188
Normal range (NR) is taken from Bassett et al., Hepatology 1986;6: 24-29



Liver Iron Concentration thresholds in Transfusional Iron Overload

Extract from Olivieri et al, Blood 1997;89, 739-61

LIC Range	Clinical Relevance
0.17-1.8 mg Fe/g dw	Normal range in non-disease patients in healthy population
3.2-7.0 mg Fe/g dw	Suggested optimal range of LIC for chelation therapy in transfusional iron loading
7.0-15.0 mg Fe/g dw	Increased risk of complications
> 15 mg Fe/g dw	Greatly increased risk of cardiac disease and early death in patients with transfusional iron overload

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HepaFatSmart™

Liver Fat Assessment Report

Patient ID:	ABC-123456789	Scan Date:	01 Jan 2023
Name:	LiverSmart-AI	Analysis Date:	09 Oct 2023
Birth Date:	01 Jan 2018	Referrer:	Dr Test
		MRI Center:	Resonance Health

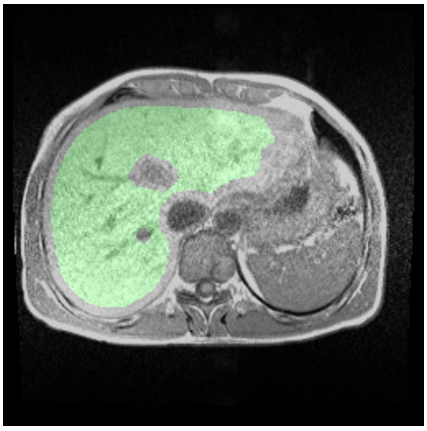
	Result	95% CI (confidence interval)	Normal Range
VLFF (Volumetric Liver Fat Fraction)	2.2%	1.9 — 2.5	0 — 4.1[1]
PDFF (Proton Density Fat Fraction)	2.6%	2.2 — 3.0	0 — 4.8[2]
Steatosis Grade	0		0[3]

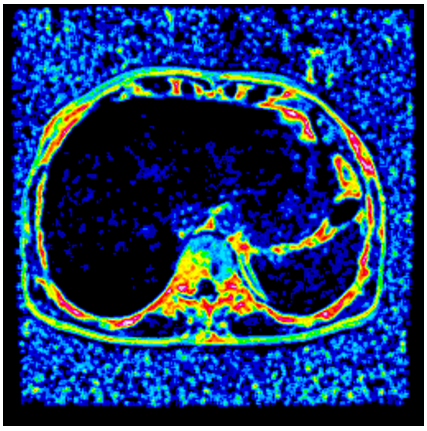
1) The normal VLFF range is derived from direct comparison between VLFF measurements and NASH-CRN grading of biopsy (St. Pierre et al., PLoS One. 2016;11(8)).
2) The normal PDFF range is derived from the calibration between VLFF and PDFF measurements.
3) Refer to the NASH-CRN steatosis grading guide below for interpreting Steatosis Grade (Kleiner DE et al. Hepatology. 2005 Jun;41(6):1313-21):

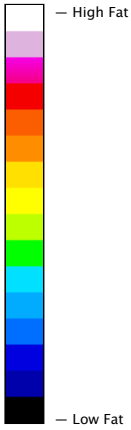
	NASH-CRN Steatosis Grading Guide
0	Involvement by steatosis in < 5% of hepatocytes
1	Involvement by steatosis in 5 to 33% of hepatocytes
2	Involvement by steatosis in 33 to 66% of hepatocytes
3	Involvement by steatosis in > 66% of hepatocytes

1st Out-of-Phase

In-Phase







ROI used for analysis

Liver Fat Distribution Map[4]

4) The Liver Fat Distribution Map is a guide to illustrate the distribution of fat in the liver. The colour display is relevant to the liver region only and colours outside the liver are not related to fat content. The colour lookup table is specific to each individual case. It should not be used for diagnostic purposes.

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