

Metabolic Dysfunction-Associated Steatotic Liver Disease (MASLD) Screening

Age 7-21 years

Aim: Reduce unnecessary testing and referrals.

Patient who is ≥ 7 yo with overweight body-mass-index (BMI see **Note 2**) with risk factors (see **Note 3**) OR obese BMI?

No

Yes

Off pathway

Obtain ALT (see **Note 1** above), Lipid Screen/Profile, Hemoglobin A1c, Glucose

ALT > ULN

ALT = WNL

ALT = ULN

Monitoring

- Recheck ALT in 2-3 years if indications persist

Annual Evaluation

- Re-check ALT in 1 year
- If persistent refer to Gastroenterology

Note 1: ALT Normal Values

	Female	Male
Within normal limits (WNL)	< 22	< 26
Upper Limits of Normal (ULN)	22-43	26-51

Further Evaluation

- Obtain Liver Panel
- Repeat Lipid, Hgb A1C, Glucose if indicated
- Consider:
 - Thyroid studies (TSH, Free T4)
 - Complete Blood Count
 - Basic Metabolic Panel
 - Celiac screen (tTG IgA and total IgA)
- Confirm Hepatitis B and Hepatitis A immunization status
- Liver ultrasound only if concern for other etiology (eg mass, gallbladder disease, portal hypertension)

Transaminitis Follow-Up

- If ALT < 80 then re-check in 1 year
- If ALT ≥ 80 then re-check in 1-6 months
- Presumptive management of MASLD (see Note 4)
- If persistent refer to Gastroenterology

EXCLUSION CRITERIA

- Known liver disease
- Known metabolic disease
- Parenteral nutrition

Referral

- Refer to Gastroenterology

Yes

ALT ≥ 100

No

Other etiology determined?

Yes

OFF-GUIDELINE
Manage underlying etiology

No

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Note 1: ALT Normal Values

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Note 2: Overweight and Obese BMI

Age	Overweight	Obese
<18 years	85-95 %ile	≥ 95 %ile
≥ 18 years	25-30 kg/m ²	≥ 30 kg/m ²

Note 3: Risk Factors to Prompt Screening if Overweight BMI

Central adiposity

Insulin resistance

Pre-diabetes or diabetes

Dyslipidemia

Sleep apnea

Family history of MASLD

Note 4: MASLD Management

MASLD management is currently restricted to lifestyle changes and bariatric surgery in select individuals

Avoidance of sugar-sweetened beverages

Healthy, well-balanced diet

Moderate- to high-intensity daily exercise

Limited screen-time

Terminology

MASLD replaced NAFLD (non-alcoholic fatty liver disease) and NASH (non-alcoholic steatohepatitis) in 2023 in order to provide an affirmative non-stigmatizing description of the condition rather than a diagnosis of exclusion.

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References

1. Vos MB, Abrams SH, Barlow SE, Caprio S, Daniels SR, Kohli R, Mouzaki M, Sathya P, Schwimmer JB, Sundaram SS, Xanthakos SA. NASPGHAN Clinical Practice Guideline for the Diagnosis and Treatment of Nonalcoholic Fatty Liver Disease in Children: Recommendations from the Expert Committee on NAFLD (ECON) and the North American Society of Pediatric Gastroenterology, Hepatology and Nutrition (NASPGHAN). *J Pediatr Gastroenterol Nutr.* 2017 Feb;64(2):319-334. doi: 10.1097/MPG.0000000000001482. PMID: 28107283; PMCID: PMC5413933.
2. Rinella, M. E. et al; on behalf of the NAFLD Nomenclature consensus group. A multi-society Delphi consensus statement on new fatty liver disease nomenclature. *Hepatology* 78(6):p 1966-1986, December 2023. | DOI: 10.1097/HEP.0000000000000520

Disclaimer: This guideline is designed for general use with most patients; each clinician should use their own independent judgment to meet the needs of each individual patient. This guideline is not a substitute for professional medical advice, diagnosis or treatment.