# Provincial Pediatric Non-Alcoholic Fatty Liver Disease (NAFLD) Primary Care Clinical Pathway

**1. Suspected NAFLD**
Incidental finding of:
- Abnormal alanine aminotransferase (ALT) persistently >40 or greater than the upper limit of normal (ULN) in local laboratory on minimum 2 sets of blood-work (6 months apart) AND/OR
- Hepatic steatosis on ultrasound (US)

No → Routine follow-up with repeat investigations as clinically indicated

Yes ↓

**2. Rule out other causes of liver disease in addition to NAFLD through the following steps:**

Medication review including:
- Prescription medications
- Herbals and supplements
- Alcohol and illicit drugs

Baseline Investigations:
- Full liver panel:
  - Total bilirubin, conjugated bilirubin, AST, ALT, GGT, ALP, CBC
  - Check INR and albumin
- Metabolic profile:
  - HbA1c and lipid profile
- Exclude other etiologies of liver disease:
  - HbsAg, anti-HCV
- ANA, TSH, FT4, antiactin/anti smooth muscle antibody, IgG, total protein, ferritin and iron/TIBC, celiac disease screen, ceruloplasmin, alpha 1 antitrypsin level, CK, urate
- Liver US
  - Completed within the last 12 months

← **3.** Work up indicated alternative cause of elevated liver enzymes (see link above for details)

← **Treat or refer for consultation** (see 'Low Risk NAFLD Care' or the referral guideline tab for details)

**Work up normal, but NAFLD diagnosis suspected:**
- BMI ≥85$^{th}$ percentile
- Hepatic steatosis on US
- Physical examination finding of insulin resistance
- Family history
- Metabolic syndrome

**4. a) Low Risk NAFLD – Manage in Medical Home:**
- ALT 36-200
- Normal workup
- US normal except for fatty infiltration

**4. b) Indeterminate/High Risk NAFLD or cirrhosis suspected (≥1 of the following):**
- ALT >200
- Platelets <150
- INR > 1.3
- US: splenomegaly (Note: upper limit of normal still considered normal)
- Calgary Zone – shear wave elastography ≥ 8k Pa

**4. c) Atypical NAFLD:**
- Hepatic steatosis on US and BMI <85 percentile or <7years old

**5. Care within the Patient Medical Home**
- Monitor yearly: total & direct bilirubin, ALT, AST, GGT, ALP with HbA1c and lipid profile (if heightened concern complete every 6 months)
- Consider: Hep A and B immunizations if not already done
- Lifestyle counselling: nutrition changes, increased physical activity, minimize screen time
- Referral to a dietitian
- Monitor for psychosocial impacts and provide psychosocial supports to patient and family if required

Referral to Pediatric Gastroenterologist (see the referral guideline tab for details)