

ABNORMAL LIVER TEST



What is ALT?

ALT stands for [alanine transaminase \(AL-A-NINE TRANS-FA-RAISE\)](#). It is a substance found in the liver that can be measured with bloodwork.

Why are we worried?

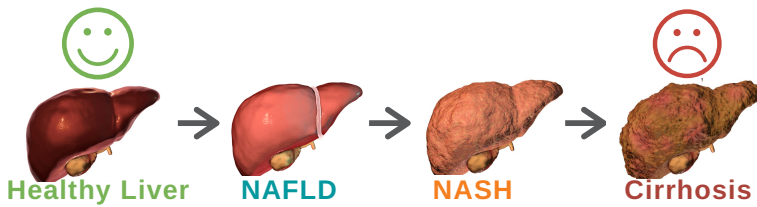
When liver cells are damaged, they release ALT into the blood, causing higher ALT values on your liver test. This can be a sign of unhealthy fat on the liver, called [NAFLD](#).

What is NAFLD?

Non-Alcoholic Fatty Liver Disease

NAFLD is a condition where there is excess fat in the liver, not caused by alcohol. It can cause few or no symptoms, but can be a [warning sign to more serious liver damage](#).

NAFLD increases your risk for [NASH or non-alcoholic steatohepatitis \(STEE-AH-TOE-HEP-AH-TIGH-TIS\)](#), a more serious condition in which fat builds up in the liver with inflammation. This can then lead to permanent liver damage, such as [cirrhosis \(SIR-RO-SIS\)](#).



Who is at risk?

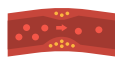
It is more common in people with:



Obesity



Diabetes



High cholesterol

Goals to achieve for next visit:

DATE: _____

- _____
- _____
- _____
- _____

• We recommend that you return in _____ for follow up with your child's pediatrician.

NAFLD is reversible. It is important to decrease fat in the liver to lower the chance for serious liver disease in the future.

What is the treatment?

[Weight loss and lifestyle modifications](#), can lead to less fat in the liver. This will lower the risk for permanent liver damage in the future.

There are currently no medicines to treat NAFLD, but exercise, healthy eating, and weight control do help.

Below are some [exercise and nutrition recommendations](#) to help you and your clinician create a management plan for you to follow.

Exercise recommendations

At least **60 min** or more of moderate-to-vigorous physical activity daily, such as:

- Vigorous activity** leads to the greatest reduction in liver fat.

These are activities that get your heart pumping and breathing fast, such as:

Running Jumping rope
Soccer Biking



- Activity that **strengthens muscles**.

These are activities with weight resistance, such as:

Push-ups Sit-ups
Climbing Weight lifting



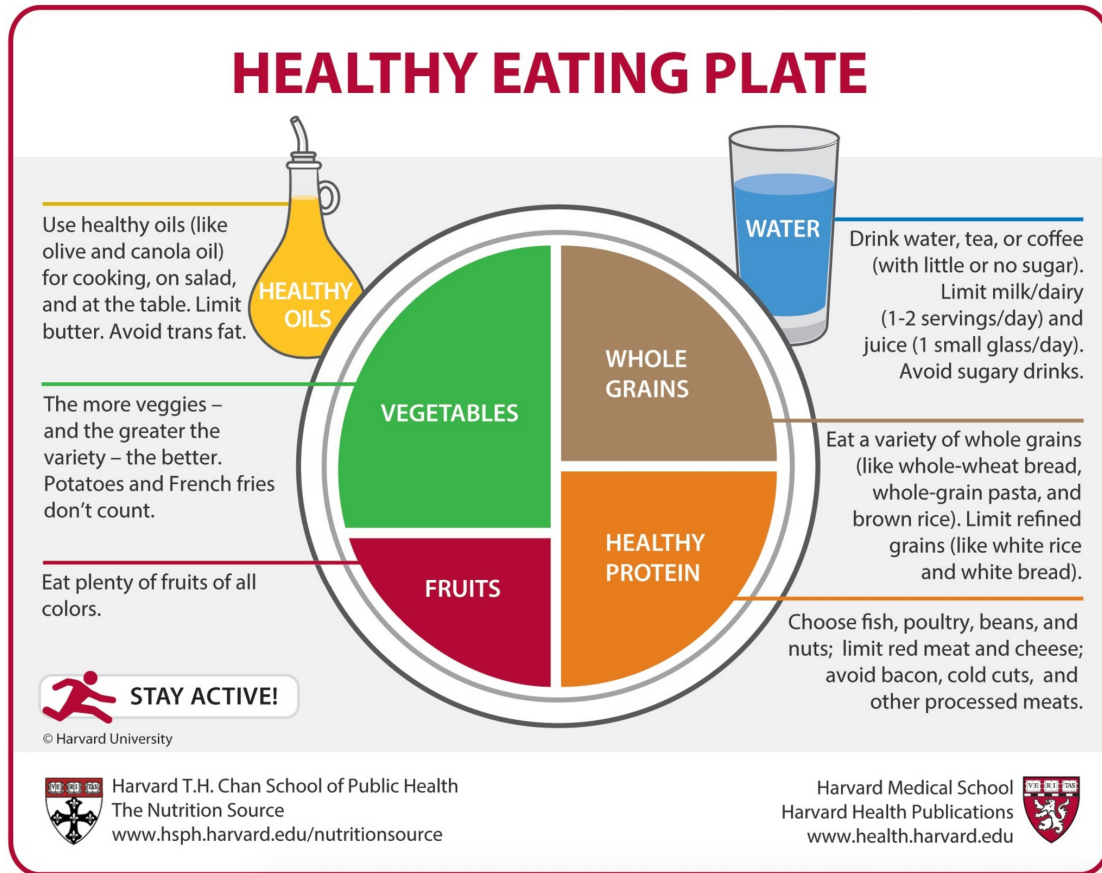
Conduct a [talk test](#) to measure your physical activity intensity. With vigorous intensity, you will not be able to say more than a few words without pausing for a rest.

Nutrition recommendations

(see back side of handout)

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Nutrition recommendations



Go for it!
Eat these
whenever
possible

- **Vegetables:** non-starchy veggies such as salad greens, green pepper, eggplant, onion, garlic, cauliflower, cabbage, carrots, broccoli, green beans, collard greens, okra, spinach, etc.
- **Proteins:** legumes, beans, nuts, chickpeas, lentils, fish, lean meats (chicken, turkey), tofu, eggs
- **Grains:** brown rice, steel-cut or rolled oatmeal, high-fiber bran cereal, bulgar, barley, quinoa
- **Fruits:** Fresh fruit such as apples, oranges, grapefruit, cherries, apricot, plum, etc.
- **Beverages:** water, unsweetened non-dairy milks, low fat dairy

Slow down!
These foods
can be enjoyed
occasionally.

- **Vegetables:** yams, corn, starchy veggies, like boiled potatoes
- **Proteins:** red meat, cheese
- **Grains:** pita bread, rye bread, couscous
- **Fruits:** dried fruits such as raisins, fruits packed in light syrup
- **Beverages:** 100% fruit juice, flavored water, Crystal Light, full fat milk

STOP and
think! Limit
these foods
if possible

- **Proteins:** fried or processed meats
- **Grains:** white rice, white bread, cereals added sugar, oatmeal with added sugar, pasta
- **Beverages:** juices (not 100% fruit juice), soda, sports drinks, sweetened tea
- **Other:** donuts, waffles/pancakes, bagels, packaged crackers, french fries