



# FATTY LIVER GUIDE

*by*

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# NOTE FROM KHUSHBOO

Hi,

I am so glad you have found this ebook. In this ebook, you will find all the information you need for better liver health. I request you to peruse through the initial information to understand what fatty liver is and where you stand now.

This guide will not just help you reverse your fatty liver, but also reduce cholesterol, lose body fat, improve glycemic control, improve skin, improve gut health and feel more energetic and productive.

I genuinely hope this book serves its purpose well and you get the results you are working towards.

All the best

Stay healthy, stay unprocessed

Love,  
Khushboo





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# What is Fatty Liver?

As the name suggests, fatty liver is when there is **excess fat built up in the liver**. Some amount of fat in the liver is natural and required. But, if the fat weight exceeds about **5% of the liver weight**, it is considered to be a fatty liver.

In most cases, it shows no symptoms for a long time. However, if ignored for a long time, it does lead to **cirrhosis** which can ultimately disrupt how the body functions.

Also, the liver is actually one of the most important organs of the body. It performs several crucial functions in the body and life without a healthy liver is not easy at all.

The good news, however, is that fatty liver is completely **reversible** for a long time. Only once the damage transforms into actual physical scarring and cirrhosis, does the damage become irreversible. So, if you have been diagnosed with a fatty liver, the sooner you address it, the better.

# Types of Fatty Liver

## **Alcoholic fatty liver:**

Drinking large amounts of alcohol, even for a few days can lead to increased fat buildup in the liver. The liver is where all the alcohol we consume is metabolized, hence maximum damage happens here. Fatty liver is the first stage of alcohol-related liver damage and it is followed by cirrhosis. Consuming up to 2 ounces for men and 1 ounce for women daily is safe, provided there are no other risk factors.

## **Non-alcoholic fatty liver:**

This is usually seen due to mainly insulin resistance-related disorders like obesity and type 2 diabetes, bad lifestyle or could be due to medical treatment. Almost 40% of Indians have non-alcoholic fatty liver disease and this number is only rising.

*In this book, we are mainly talking about Non-Alcohol Fatty Liver. However, most of the recommendations will be beneficial for both types.*

# Causes

**Insulin Resistance - as seen in obesity, PCOS, type 2 diabetes, and high cholesterol levels**

**Sedentary lifestyle - 8000-10000 steps per day is the bare minimum for good health.**

**Consumption of processed foods (like refined flour, white sugar, refined oils, processed meats, ready-to-eat items, instant noodles, jams, etc.)**

**Stress**

**Smoking**

**Alcohol - liver is the main site of metabolism of all toxins in the body.**





# Causes

**Erratic Sleep Schedule**

**Chemicals in body products and makeup**

**Air pollution**

**Genetic history**

**Heavy metal toxicity like mercury and lead are surprisingly common. These come through food, breathing in industrial areas, and mercury-based dental implants.**

**Certain medication**



# Tracking Progress

If you have ticked more than 3 of the above causes, you might be at risk. Get your blood work done as well as sonography to get a clear idea.

## Blood tests to be done:

Total Cholesterol - <200 mg/dL

Fasting Insulin - 4-6 mg/dL

VLDL - <30 mg/dL

LDL - <130 mg/dL

HDL - >40 mg/dL

TG - <150 mg/dL

TG / HDL Ratio < 1.5

HbA1c - <5.5%



GGT - <73 U / L













SGPT - 10-49 U / L

SGOT - <34 U / L

ESR - <10

hs-CRP - < 1

 2200640003		PIN No: 600015 PID NO: P642000175409 Age: 36.9 Year(s) Sex: Male		Nungambakkam Processing Location:- Metropolis Healthcare Ltd, #3, Jagannathan Road, Nungambakkam, Chennai - 600 034	Collected On: 18/01/2023 10:00AM Reported On: 18/01/2023 04:02 PM
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Investigation	Observed Value	Unit	Biological Reference Interval
<b><u>Liver Function Test-2(Mini)</u></b>			
<b><u>Total Proteins</u></b>			
 <b>Total Protein</b> (Serum,Biuret)	7.82	g/dL	6.4-8.3
 <b>Albumin,Serum</b> (Serum,Bromocresol green)	4.89	g/dL	3.5-5.2
 <b>Globulin</b> (Serum,Calculated)	2.93	g/dL	1.8-3.6
 <b>A/G Ratio</b> (Serum,Calculated)	1.67		1.1-2.2
<b><u>Bilirubin Total, Direct, Indirect Serum</u></b>			
 <b>Bilirubin-Total</b> (Serum,Diazo)	0.38	mg/dL	0.2-1.2
 <b>Bilirubin-Direct</b> (Serum,Diazo)	0.17	mg/dL	<= 0.30
 <b>Bilirubin- Indirect</b> (Serum,Calculated)	0.21	mg/dL	0.1-1.0
 <b>SGPT (ALT)</b> (Serum,Enzymatic)	31	U/L	0-45
 <b>SGOT (AST)</b> (Serum,Enzymatic)	19	U/L	0-35
 <b>Alkaline Phosphatase</b> (Serum,pNPP)	67	U/L	40-130
 <b>Gamma GT (GGTP)</b> (Serum,Enzymatic)	62	U/L	8-61
 <b>HsCRP-High Sensitivity CRP</b> (Serum,Immunoturbidimetric)	4.37	mg/L	Low risk: < 1.0 Average risk: 1.0-3.0 High risk: > 3.0

**Interpretation:**

- High sensitivity C reactive protein (hs CRP) measurements may be used as an independent risk marker for the identification of individuals at risk for future cardiovascular disease.
- hs CRP when used in conjunction with traditional risk factors may be useful as an independent marker for prognosis of recurrent events in patients with stable coronary disease or acute coronary syndromes.
- Patients with evidence of active infection, systemic inflammatory processes or trauma should not be tested for cardiovascular risk assessment until these conditions are abated.

The values for every lab can be different. Show your blood report to your nutritionist or physician to know where you stand. Also, remember that sometimes being in the range is not the same as being healthy. So you definitely want to show your reports to a Nutritionist who focuses on disease reversal. You could book an online or in-person consultation with us, if you wish to.

# Why has Fatty Liver become so common?

**Nearly 40% of Indians have some or the other Non-Alcoholic fatty liver stage today.**

The key reason for such high numbers is quite simple really. It's our lifestyle. We are eating more than ever before, our food is more processed than ever before, we are seated most of the day, our sleep schedules are not in sync with our circadian rhythm anymore, and we are putting in more toxins through pollution, chemical-laden body products, food additives and more.

All of this coupled with the increased prevalence of insulin resistance, type 2 diabetes, obesity, and dyslipidemia have come together to cause this alarming rise in fatty liver.



# 10 FOOD CHANGES YOU SHOULD MAKE RIGHT AWAY

## 1. 50% of your lunch and dinner should comprise vegetables

This can include multiple types and forms of vegetables. You can do salads, cooked vegetables, stir-fried vegetables, soup, vegetable chutneys, Lacto-fermented vegetables, vegetables in dals and rotis.

**Pro-tip:** adding 2-3 forms of vegetables to each meal makes sure you get a good variety and keeps your meals more interesting.

## 2. Add something fermented every day

Fermented foods improve overall digestion and absorption of nutrients. A healthier gut microbiome will also lead to improvement in insulin sensitivity, reduced food cravings and diminished fat deposition.

Add 1 fermented food, to begin with. These can include kombucha, kanji, kefir, ragi koozh, bajre ki raab, poita bhat, buttermilk, kimchi, sauerkraut, qvaas, etc.





### 3. Start your day with warm water and the juice of half a lime

Lime contains acids that stimulate the release of digestive fluids in the stomach. Lime contains flavonoids that reduce oxidative damage. Drinking warm water aids the break down of food faster. Also, warm water eases constipation and aids in elimination of toxins.



### 4. Eat more fibre

Increasing fibre intake improves the gut microbiota which reduces liver damage and inflammation.

Fibre-rich meals also help with portion control, thereby supporting healthy fat loss.

### 5. Eliminate baked foods

Baked foods like croissants, breads, biscuits, cakes, etc. cause a sharp spike in blood glucose levels, leading to increased fat buildup in the liver.



## 6. Eat cruciferous vegetables

Include cruciferous vegetables like cauliflower, broccoli, cabbage, brussel sprouts, bokchoy, collard greens, Chinese cabbage, etc.

This family of vegetables contain sulphur compounds that play an important role in the detoxification process in the liver. They also contain "Indole" a compound that is known to reduce inflammation in the liver.

## 7. Eat raw garlic

Garlic contains a compound called Allicin that reduces inflammation in the liver. Eating about 1-3g of garlic daily is great.





## 8. Drink 2-3 litres of water

Drinking enough water helps flush out toxins. This eases digestion and reduces the burden on the liver and kidneys.

You can infuse the water with herbs or green tea if you don't like plain water.

## 9. Increase your consumption of coriander leaves

Coriander leaves stimulate the release of digestive juices and help flush out toxins. Coriander has been used to improve liver health for centuries.



## 10. Eat more beans, greens, fruits and nuts

These food groups are fibre rich and contain unsaturated fats, antioxidants, minerals and vitamins that support overall health.

# RECIPES FOR LIVER HEALTH



**Serves: 4 | Lunch, Dinner**

# Moong Dal Idli <sup>1</sup>

*Idli is traditionally made using Rice and Black Gram. The grains are soaked, ground into a paste, and then kept for fermentation for 8-10 hours. This traditional recipe itself is quite nourishing. However, for those of us who are trying to curb our carbohydrate intake, this version of the recipe is a great choice.*

*The overnight soaking and fermentation improve the nutritional content as well as the bioavailability of the nutrients present in the dals. Also, legumes are notorious for their lectin content (anti-nutrients). However, the processing in this recipe will reduce their lectin content considerably, making it easy to digest as well as richer in protein content.*

## Ingredients

1 cup Moong Dal  
1/3 cup Urad Dal  
Salt, to taste  
Ghee

## Method:

- Wash and soak the dals separately for 12 hours. During this time change the water once.
- Grind the two dals separately and then mix.
- Mix in salt.
- Keep them to ferment for 8-10 hours.
- Steam them in an Idli maker.
- Once done, rub some ghee on the hot Idlis, remove it from the Idli maker, and serve



Serves: 2 | All Day

## Raw Garlic Chutney

This recipe is one of the simplest, quickest and most delicious ways of eating garlic. It goes really well with dhokla, rice, idli, etc.

### Ingredients

8-10 cloves Garlic  
1 tsp Red Chilli Powder  
1 tsp Filtered Groundnut Oil

### Method:

- Peel and crush raw garlic in a mortar and pestle
- Add chilli powder and continue grinding
- Once it becomes a fine paste, transfer the paste to a serving bowl and mix in the oil.
- The chutney is ready to use.

Serves: 2 | Lunch, Dinner

## Antioxidant Salad

### Ingredients

Fistful of Baby Spinach  
Fistful of Arugula  
1/2 cup Steamed Beetroot  
1/2 cup Roasted Pumpkin  
1/2 cup Cucumber  
1/4 cup Pickled Onions  
1/4 cup Crushed Walnuts  
1/2 cup boiled Chickpeas

### Dressing:

1 tbsp Olive Oil  
3 tbsp Balsamic Vinegar  
Salt  
Pepper  
Basil leaves

### Method:

Toss everything together and your salad is ready.





**Serves: 1/2 Cup | All Day**

## Liver-Friendly Green Chutney

*This chutney is good for the entire family. Coriander, celery, garlic, curry leaves and ginger provide nutrients that support natural detoxification processes of the liver. Sesame is a great source of calcium. The herbs all provide lots of iron. Amla, as we know, is the best source of Vitamin C. Ginger is anti-inflammatory and stimulates the release of gastric juices in the stomach. Kala namak is a digestive. Chillies boost metabolism. Long story short, this recipe is like a multivitamin supplement but tasty and unprocessed.*

### Ingredients

1 small bunch Coriander Leaves, with stalks  
Handful of Mint Leaves  
Handful of Curry Leaves  
3 tbsp Sesame seeds, soaked overnight  
2-3 stalks Celery leaves  
Lime juice or 3 Amla or Raw Mango  
1 inch pc of Ginger  
3-4 cloves of Garlic  
Kala namak  
2-3 green chillies



### Method:

- Soak the sesame seeds overnight.
- Cut amla into small wedges.
- Blend everything together, you can add a little water for consistency.
- Adjust the taste for salt, spicy and tangy.
- Keep this in an airtight container and finish within 3-4 days. If you can make it fresh daily, then that will be the best.

### Khushboo's Notes

- Eat this with everything!
- 1-2 spoons daily is good enough.

**Serves: 2 | Lunch & Dinner**

# Detox Khichdi

## Ingredients

White Rice - 1 fistful per person

Moong Dal - 2 fistfuls per person

Chopped Greens (spinach, radish, carrot tops, beet greens, cauliflower greens, fenugreek, malabar spinach, amaranth leaves) - 1 cup per person

Grated Cucurbit Vegetable (bottle gourd, ridge gourd, pumpkin, ash gourd, baby watermelon, zucchini, snake gourd, butternut squash) - 1 cup

Garlic - 2 gloves

Ginger - 1-inch PC

Clove - 1

Black Peppercorn -2

Salt

Haldi

Water - 1/2 cup per person, approx

Grated Coconut - 1 tbsp per person

Coriander leaves - 1 tbsp per person

Ghee - 11 tsp per person

## Method:

- Soak the rice and dal mix for 6-8 hours.
- In a stock pot, place all the ingredients except coconut, coriander and ghee.
- Once everything starts boiling vigorously, slow the flame, cover the pot and let this simmer for about 20-25 minutes, stirring occasionally.
- Once the rice and dal are cooked thoroughly, switch the flame, cover the pot and let this sit for a few minutes.
- While eating, top the khichdi with ghee, grated coconut and coriander leaves.
- Eat this with the Green Chutney mentioned above.





**Serves: 2 | Lunch**

# Tofu & Broccoli Rice Bowl

## Ingredients

250g Firm Tofu  
2 cups Broccoli  
2 cups Button Mushroom  
4-5 Garlic cloves  
1 inch Ginger  
2 Green Chillies  
1 stalk Celery  
2 tbsp White Sesame Seeds  
1 tbsp Light Soy Sauce  
1 tsp Dark Soy Sauce  
1 tbsp Mirin  
Salt  
1 tbsp Sesame Oil  
1.5-2 cups boiled & cooled Rice

## Method:

- Cut tofu cubes. Apply some oil, sprinkle some salt and cook on a pan till the tofu pieces get crispy.
- Grind the ginger, garlic, chillies and celery stalk.
- Chop the broccoli and mushroom to 1/2-inch cubes.
- Heat a pan, add the oil and heat it.
- Add in the ginger garlic chilli paste and cook till golden and fragrant.
- Add the mushrooms and cook thoroughly.
- Add the broccoli
- Add the soy sauce, mirin and salt.
- At the time of serving, sprinkle the toasted sesame seeds on the rice.



**Serves: 2 | All Day**  
**Mulethi Tea**

**Ingredients**

Mulethi Root - 2 cm pc  
Fennel Seeds - 1 tsp  
Ginger - 1 inch  
Water - 500 ml

**Method:**

- Boil all the ingredients in water, on a medium flame for 3-4 minutes.
- Strain and drink.





**Serves: 2 | Snack, Lunch & Dinner**

# Roasted Tahini Carrots & Pumpkin

## Ingredients

200g Pumpkin or Squash wedges  
200g Baby Carrots or Carrot Cubes  
1 tsp any Coldpressed Oil  
Salt & pepper to taste  
Lime Juice  
2 tbsp Tahini  
1 tbsp Sesame Seeds  
1/2 tsp Chopped Mint

## Method:

- Preheat the oven to 180 degrees
- In a greased baking tray, place the pumpkin and carrots. Rub oil, salt and pepper to them.
- Bake them for 20 minutes at 180 degrees, shaking the tray every 5-7 minutes to ensure an even cook.
- Once done, transfer the vegetables to your serving plate.
- Drizzle the tahini and garnish with lime juice, chopped mint and sesame seeds.



**Serves: 2 | Breakfast**

# Breakfast Smoothie

## Ingredients

8 Soaked Almonds  
1 tbsp Soaked Sesame Seeds  
1 tbsp hemp hearts  
Handful Leafy Greens - spinach, kale, lettuce, etc.  
2-3 spoons Coriander Leaves  
A small PC of Ginger  
1/2 Banana or 2-3 Dates  
1/2 cup Sweet & Sour Fruit like Pineapple, Berries, Orange, etc.  
1 scoop Vanilla Plant Protein  
1 tsp Moringa Powder  
1 tsp Spirulina Powder  
1 tsp Psyllium Husk  
200 ml Water or Coconut Water

## Method:

- Blend everything into a fine smoothie
- You can add more water for consistency
- Enjoy!





# What should you do next?

Over the past years, I have developed a unique program that has helped several clients prevent, reverse and better manage fatty liver and related disorders like type 2 diabetes, etc. This program can help you improve overall health, build healthy habits and enjoy a long, disease-free life.

Sign up for my online or offline programs to take charge of your health and live unprocessed.

All the details can be found on my website [thehealthpantry.in](http://thehealthpantry.in)

## About Khushboo

Khushboo Jain Tibrewala is a Nutritionist & Diabetes Educator from Mumbai, India. She has been featured and interviewed on multiple media platforms, both print and digital. She has immense experience in the space of type 2 diabetes and lifestyle disorder management. What makes her unique is the amalgamation of modern health science and traditional Indian food wisdom that she recruits.



## Disclaimer

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