



are frequently unstable, causing conditions such as high cholesterol, high triglycerides, weight gain and cravings for the wrong kinds of carbohydrates. The condition often precedes diabetes.

According to Dr Sandra Cabot, author of *Fatty Liver: You Can Reverse It*, some of the common symptoms of an unhealthy liver include:

- ▶ fatigue
- ▶ abdominal bloating and congestion
- ▶ discomfort or pain in the liver area
- ▶ accumulation of abdominal fat
- ▶ indigestion and intolerance of fatty foods
- ▶ reflux and heartburn
- ▶ gallbladder problems
- ▶ headaches, especially when associated with nausea
- ▶ inability to lose weight even while dieting
- ▶ high blood pressure
- ▶ cravings for sugar and other high carbohydrate foods
- ▶ symptoms of low or unstable blood sugar, such as sweating, a racing pulse, dizziness, fatigue, sleepiness, mental confusion and headache.

Weight gain is particularly common when the liver isn't functioning well. This occurs because high levels of insulin, a fat-storing hormone, promote weight gain. Excess insulin suppresses the activity of fat-burning hormones while at the same time increasing the appetite, especially the craving for sweet foods and carbohydrates. It produces hunger even when there is no need to eat.

10 principles for a healthy liver

The good news is that, given the right conditions, the liver is capable of self-repair and restoration.

If you've been diagnosed with fatty liver, find yourself suffering with some of these symptoms or simply want to improve the health of your liver, it is possible to reverse liver damage and achieve good liver health by following some healthy liver practices. Following are Cabot's recommendations.

1 Choose a diet low in grain-based, refined carbohydrates

If you're struggling to lose weight, try excluding or minimising grains from your diet for three months. Grains to avoid are wheat, rye, barley, oats and rice. You can replace these grains with seeds, legumes and nuts.

2 Avoid foods high in refined carbohydrates

These include table sugar, foods

You feel tired all the time. You know you've put on centimetres around your middle. You suffer from indigestion and can't tolerate fatty foods. You find it hard to lose weight, even with careful dieting. And you get headaches, sometimes accompanied by nausea. Do these symptoms sound familiar?

If you recognise any of these symptoms in yourself, you might find it worthwhile to consider the health of your liver. The liver is one of the hardest-working organs in your body. It is your body's cleaning and filtering system, and its state of health affects the rest of your body. Specifically, your liver:

- ▶ removes dead and unhealthy cells from your blood
- ▶ removes cancer cells from your blood
- ▶ removes heavy metals and other environmental toxins from your system
- ▶ removes harmful microorganisms such as bacteria, parasites and fungi
- ▶ removes globules of fat from your blood.

When your liver is clogged with fat or is otherwise in poor health, your immune system becomes overloaded; you feel the impact in many of your body's other organs; and you age more rapidly.

an unhealthy liver

Syndrome X is a metabolic disorder associated with abnormally high levels of insulin, which is produced by the pancreas. It's the most common cause of fatty liver disease, and it occurs when high insulin levels cause the liver to store fat from dietary carbohydrates.

With syndrome X, the body becomes insulin-resistant, meaning that the insulin your body produces no longer works effectively. Insulin is released into your bloodstream when the glucose that's stored in your liver and muscles (as glycogen) has to respond to changes in blood sugar levels.

In people with insulin resistance, the body compensates by producing more and more insulin. Blood sugar levels

with added sugar or maltodextrin, corn syrup, jams containing sugar, lollies, sugary desserts and drinks, ice-cream, pizza, chocolate (although a small amount of dark chocolate is OK), chips, cakes, pastries and biscuits.

3 Minimise foods with refined flour

Such flour has been ground and refined by stripping off the outer layer of a grain, where the fibre is located. These include white flour, bread, processed and packaged cereals, pasta, noodles and snack foods.

4 Increase your raw food intake

Raw foods are your liver's best friend. They help to cleanse and repair your liver so it can work efficiently to remove fat and toxins from your bloodstream. Eat a large salad once or twice a day and after awhile you should notice that you feel better and have more energy. Because of the high fructose content in fruit, it's best to limit yourself to two pieces a day while you're trying to lose weight. The best fruit choices are those with a tart taste. An abundance of fresh vegetables (raw and cooked) will provide a wonderful bounty of powerful healing ingredients for a tired, damaged liver.

5 Eat quality protein

Good protein sources include:

- ▶ unflavoured, plain yoghurt
- ▶ free-range or organic eggs
- ▶ unprocessed cheeses such as cottage cheese, feta, pecorino or Romano
- ▶ whey protein powder
- ▶ a combination of raw nuts, seeds and legumes.

And note, when you combine legumes, seeds and nuts in one meal, you get a first-class protein that contains all the essential amino acids you need to control hunger and blood sugar levels.

Protein has a number of benefits. It doesn't elevate insulin levels, so it doesn't lead to the storage of fat. It satisfies hunger for longer periods and it reduces cravings for carbohydrates. Your body can use it for energy, and it will improve your brain chemistry, having a positive effect on mood swings and depression.

6 Include healthy fats

It's important to eat healthy fats. Many people believe they need to be on a low-fat diet to lose weight, but healthy fats are essential for an efficient metabolism and good liver function. When your liver is in good shape, it will manufacture the good HDL

cholesterol, and this will help to keep your bad LDL cholesterol in balance.

Healthy fats are those found in their natural state, such as raw seeds, cold-pressed oils, avocados, olives and raw nuts. A good rule of thumb is, if it's the way nature made it, it's good for you!

7 Avoid ingesting damaged and unhealthy fats

Damage occurs when the structure of the fat in food is altered during cooking or processing. Unhealthy fats occur in or include:

- ▶ deep fried foods
- ▶ processed and preserved meats
- ▶ lard, drippings and suet
- ▶ partially hydrogenated vegetable oils
- ▶ trans-fatty acids found in margarine and some cooking oils
- ▶ hydrogenated oils found in processed foods and snacks.

Some people have a need for extra omega-3 essential fatty acids in their diet, and these can be found in oily fish, walnuts and flaxseeds or taken as a supplement.

8 Avoid eating large meals

If your liver isn't in good shape, a large meal can leave you feeling fatigued and bloated, and you may also suffer from gastric reflux and heartburn.

9 Keep well-hydrated

Good hydration leads to good

circulation, which means that your liver can do its job of cleansing and filtering more efficiently. It also helps to boost your metabolism and it facilitates weight loss.

Good hydrating fluids include:

- ▶ water
- ▶ herbal teas
- ▶ vegetable juices

Drinks to avoid include:

- ▶ alcohol
- ▶ coffee
- ▶ sweet or sugary drinks, including soft drinks
- ▶ so-called diet drinks.

All of these tend to dehydrate the body. They should be replaced with liver-friendly options.

10 Exercise regularly

Regular exercise reduces insulin levels and speeds up your metabolism. For people who haven't exercised for a long time or who are overweight or unfit, gentle walking or swimming are good ways to begin.

■ As your liver health improves, you will find that you have more energy, a better mood and enhanced mental health.

Your liver is so vital to your general health and well-being that it's essential you take care of it. Love your liver and reap the rewards of good health for years to come!

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lifestyle changes to combat a fatty liver

There is no medication to cure a fatty liver, but it does respond well to lifestyle changes. The following suggestions will help you to avoid or perhaps even reverse a fatty liver problem:

If you are overweight, trim down toward the healthy weight range. As little as 5 to 10 per cent loss of your current weight can improve a fatty liver. Very low kilojoule diets followed for 12 weeks have been shown to shrink a fatty liver in obese people by one third!

Walk for one hour each day. This can help your body burn fat, defend the liver against oxidative damage and improve your overall liver health, according to a study from the Cleveland Clinic's Lerner Research Institute.

Eat a plant-based diet that's rich in fibre and antioxidants. This will make it easier to lose fat and keep it off in the long term. Scientists believe that adopting an olive oil-rich Mediterranean diet can help to prevent the onset of a fatty liver. —Sue Radd, dietician

