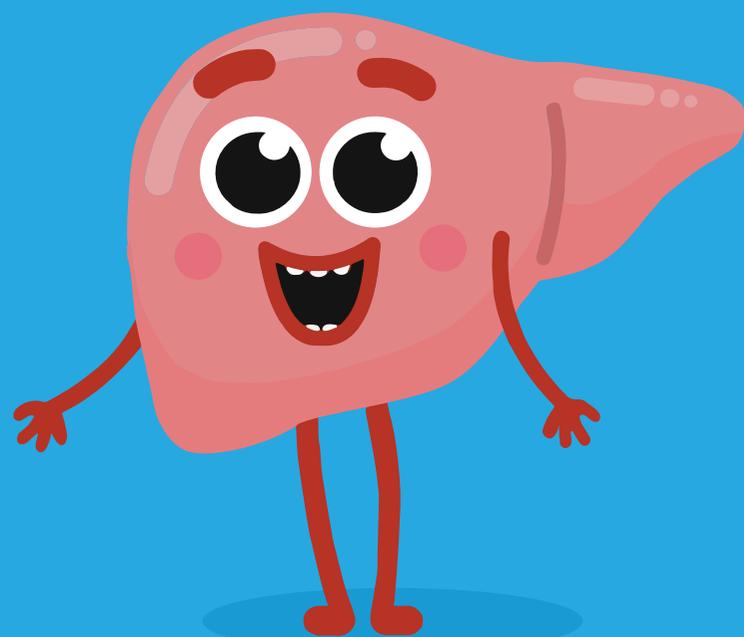


Non-alcoholic Steatohepatitis: NASH



LiverWELL[®]

Stages of liver disease

There are many different types of liver disease. No matter what type you have, the damage to your liver progresses in a similar way.

The good news is that if liver disease is caught early, treatment can be very effective. Left untreated, your liver will get worse.



Fatty Liver:

An accumulation of fat in the liver cells can occur over many years, without obvious symptoms or pain. Regular blood tests can identify fatty liver disease early and be reversed.



Steatohepatitis - NASH:

Non-alcoholic steatohepatitis (NASH) occurs when the liver becomes inflamed due to fat accumulation in the liver. It is associated with obesity, diabetes and all the elements of metabolic syndrome.



Fibrosis:

If an inflamed liver is not treated, healthy soft tissue will begin to scar and harden. With treatment, fibrosis (scarring) can heal.



Cirrhosis:

A liver with cirrhosis is full of hard scarred tissue. Treatment can stop or reduce liver damage, protect your liver to ensure it keeps functioning and improve your liver health.



Liver Cancer:

Risk of liver cancer is higher if you have hepatitis B, hepatitis C, fatty liver disease and liver cirrhosis of any cause.



Liver Failure:

Liver failure is when the liver stops working properly. This is a very serious condition that needs urgent medical care. A liver transplant might be an option.

Treatment for NASH

Treatment for NASH includes managing conditions that increase your risk for NASH or make it worse. You can:

- Reduce your total cholesterol level
- Reduce your weight
- Control diabetes
- Stop or cut back on drinking alcohol
- Exercise regularly.

Weight loss is effective

Weight loss is an effective treatment and losing 3% to 10% of your total body weight has been found to make a positive difference.

Long-lasting lifestyle changes are necessary if weight loss is to be achieved. For a start, take a look at our free resource Eating Well: A LiverWELL™ Lifestyle Guide which has dozens of hints and tips to help.

Also, ask your doctor or pharmacist about all the medicines you are taking. Some may harm your liver.

In the United States, NASH is now the number one reason for people needing liver transplants.

To date, no medicines have been approved to treat NAFLD and NASH. As it is such a growing problem, researchers are now working on medicines that may improve these conditions.

Keeping your liver healthy

The free LiverWELL™ app developed by Hepatitis Victoria has lots of tips on how to keep your liver healthy:

-  eating well: cut back on foods that are high in fat and sugar
-  getting active: try some exercise everyday
-  feeling well: take care of yourself emotionally, spiritually and physically
-  drink aware: do not drink alcohol.

For information and practical tips on managing your liver health, visit: www.liverwell.org.au or download the LiverWELL™ app

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Finding support

Hepatitis Infoline - Call 1800 703 003

Free and anonymous. Trained professionals listen to your concerns and provide further information.

Useful Websites

www.hepvic.org.au
www.cancervic.org.au

www.liverwell.org.au
Stanford Health Care

HEPATITISVICTORIA
LiverWELL[®]

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This work has been supported by an unrestricted grant from Gilead Sciences

Produced by Hepatitis Victoria. This information is general in nature and not intended as medical advice. Consult your doctor for further information.

Why your liver is important

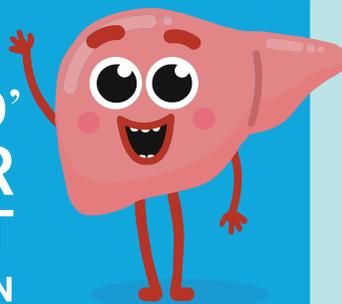
Just about everything you eat and drink goes through your liver. Even chemicals that touch your skin and toxins that you breathe pass through your liver.

Your liver has around 500 different functions to keep your body working at its best. The two most important jobs it does are cleaning your blood and helping with digestion.

A healthy liver also helps with energy, fights infection and removes harmful toxins. But a damaged liver can't perform these functions efficiently.

So, it's vital to keep your liver healthy.

SAY 'HELLO' TO YOUR HARDEST WORKING ORGAN



Facts about the liver:

- It is the largest internal organ.
- It is located on the right-hand side of your body, behind your ribs.
- It can repair itself and create new, healthy liver tissue.
- It breaks down and absorbs fats in the body.
- There are 1.5 litres of blood flowing through your liver every minute.

What is non-alcoholic steatohepatitis (NASH)?

NASH is liver inflammation and damage caused by a build-up of fat in the liver. It is part of a group of conditions called non-alcoholic fatty liver disease.

Many people have a build-up of fat in the liver and for most people it causes no symptoms and no problems.

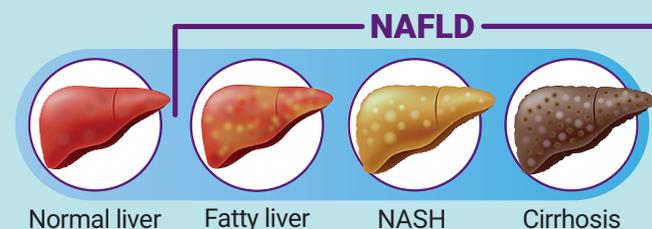
For some, the fat causes inflammation and damages cells in the liver and as a result of the damage the liver doesn't work as well as it should.

NASH can get worse and cause scarring of the liver, which leads to cirrhosis. But the disease doesn't always get worse. NASH is similar to the kind of liver disease that is caused by long-term, heavy drinking but occurs in people who don't use or abuse alcohol.

What causes NASH?

Experts don't know why some people with a build-up of fat in the liver get NASH and some don't. It could be that something in the environment triggers the inflammation in those people or maybe it runs in their families.

What is known is that NASH is more common when a person has diabetes, obesity, older age and increased inflammation.



Steatohepatitis -NASH- is part of a progressive continuum in a group of conditions called non-alcoholic fatty liver disease.

What are the symptoms of NASH?

You may have no symptoms in the early stages of NASH. Most people in Australia who have NASH feel fine and don't know that they have it.

Diagnosis often occurs for reasons not related to NASH, when abnormal liver enzymes are detected on a blood test or through an imaging scan of the liver.

NASH may cause swelling of the liver and you may suffer symptoms such as fatigue, loss of appetite, abdominal discomfort, jaundice (yellowing of the skin and whites of the eyes), very itchy skin, weakness and confusion.

It may take many years for NASH to become severe enough to cause symptoms but by identifying it early, your doctor will have a good chance of preventing or reversing scarring (fibrosis).

NASH can lead to complications, such as cirrhosis and liver cancer and people with NASH have an increased chance of dying from liver-related causes.

NASH: am I at risk?

Things that put people at risk for NASH and for liver damage include:

- Obesity
- Insulin resistance and type 2 diabetes
- High cholesterol and high triglycerides
- Metabolic syndrome.

Most people who have NASH are 50 years or older and have one or more of the problems listed above, however NASH has been diagnosed in younger people and even children.

NASH can also happen in people who have none of these risk factors. It is estimated that between 1.5% and 6.5% of the population - up to 1.6 million - in Australia has NASH*.

* Dr Marno Ryan NAFLD Talk St Vincent's Symposium 29/11/19

How is NASH diagnosed?

No single test can diagnose NASH. Your doctor will ask you about other health problems you've had. Your doctor may do tests to see if fat is building up in your liver and to rule out other diseases. Your doctor may do:

- Blood tests
- An abdominal ultrasound
- A CT (computerised tomography) scan
- An MRI (magnetic resonance imaging) scan.

Your doctor may do a liver biopsy to be sure that you have NASH. In a liver biopsy, your doctor takes a small sample of tissue from your liver and checks it for signs of NASH.

Referral from your GP to a gastroenterologist is also a good idea.

Talking about your concerns

If you are concerned you might have NASH, talk to your doctor who can run tests to measure how your liver is working.

Try talking to friends and family for practical and emotional support. You can also talk to health providers - including nurses, counsellors, therapists, pharmacists, dieticians and nutritionists.

For general information and support you can also call the Hepatitis Victoria Infoline: 1800 703 003.