CONDITION

Hepatic hemangioma

A hepatic hemangioma is a noncancerous cluster of blood vessels in the liver.

WHAT IT IS
Benign cluster of blood vessels in the liver

BODY SYSTEM
Digestive system

MAIN SYMPTOMS
Usually none, upper abdominal discomfort, fullness, nausea

WHAT CAUSES IT
Unknown; likely a blood-vessel malformation

HOW IT IS DIAGNOSED
Contrast-enhanced MRI, CT, or characteristic ultrasound

MAIN TREATMENT
Observation; procedures or surgery for selected cases

CAN IT BE CURED?
Yes - removal can be definitive

IS IT AN EMERGENCY?
Sometimes - sudden severe abdominal pain with faintness

LONG-TERM OUTLOOK
Usually stable and harmless after imaging confirmation

Overview

A hepatic hemangioma is a cluster of abnormal blood vessels in the liver. "Hepatic" means related to the liver. It is a benign condition, meaning it is not cancer.

Most hepatic hemangiomas are found by chance during an ultrasound, CT scan, or MRI performed for another reason. Many remain small and never cause symptoms or need treatment.

Finding a liver growth can be worrying, but a hemangioma does not usually damage the liver or turn into cancer. The main task is making sure that its appearance on imaging is typical. Once the diagnosis is secure, many people need no further tests.

Hemangiomas can occur as a single lesion or, less commonly, as several lesions. Some grow large enough to press on nearby organs. Terms such as "large" or "giant" hemangioma are

used differently across medical centres, so size alone does not determine whether treatment is needed.

Symptoms

Most hepatic hemangiomas cause no symptoms. They do not usually affect liver function, and routine blood tests may be normal.

When symptoms occur, they may include:

These symptoms are not specific to a hemangioma. Gallbladder conditions, stomach problems, bowel conditions, and other causes can produce similar symptoms. If a hemangioma is found during an investigation for abdominal discomfort, it may not be the source of that discomfort.

Symptoms are more plausible when a lesion is large enough to stretch the liver covering or press on the stomach and nearby structures. Even then, other explanations usually need to be considered before treatment is directed at the hemangioma.

Sudden severe pain is unusual. It may signal bleeding, another complication, or an unrelated abdominal condition and needs prompt assessment.

- An ache or discomfort in the upper-right abdomen
- Feeling full after eating a small amount
- Nausea
- Bloating or a sense of pressure under the ribs

Causes and risk factors

The exact cause is unknown. Hepatic hemangiomas are thought to arise from an abnormal arrangement of blood vessels, possibly present from early development. They are not caused by an infection, diet, alcohol use, or anything you did.

Most are not considered inherited conditions. Having a hemangioma does not usually mean that your children or other close relatives will develop one.

Hemangiomas are diagnosed more often in women. Hormones such as estrogen may influence the growth of some lesions, but the relationship is not fully understood. Pregnancy and estrogen-containing medicines have occasionally been associated with enlargement. Current evidence does not support routinely avoiding pregnancy or stopping hormone treatment simply because a typical hemangioma is present.

A person's medical background matters when a liver lesion is being assessed. Cirrhosis, chronic liver disease, or a history of cancer can make it more important to confirm that a lesion truly has the imaging features of a hemangioma.

Diagnosis

A hepatic hemangioma is usually diagnosed through imaging. The pattern created as contrast dye moves through its blood vessels is often distinctive.

Tests may include:

A single scan may be enough when the appearance is typical and the surrounding liver is healthy. Additional imaging may be recommended when the lesion has unusual features, the original scan did not use contrast, or there are risk factors for other liver growths.

Blood tests cannot confirm a hemangioma. They may be used to check liver function or investigate other possible causes of symptoms.

A biopsy removes a tissue sample with a needle. It is generally avoided when imaging already shows a typical hemangioma because the lesion contains blood vessels and may bleed. In an unclear case, specialists may consider biopsy only after reviewing the imaging and weighing the risks.

- Ultrasound: Uses sound waves to produce images of the liver. A typical hemangioma may appear as a clearly defined, bright area.
- Contrast-enhanced MRI: Uses a magnetic field and contrast material to show the lesion's structure and blood flow. It often provides the clearest confirmation.
- Contrast-enhanced CT: Uses X-rays and contrast material to create detailed cross-sectional images.
- Contrast-enhanced ultrasound: Available in some centres and useful for studying blood flow without CT radiation.

Treatment and management

Most hepatic hemangiomas need no treatment. If imaging confidently confirms a typical hemangioma and you have no related symptoms, observation is usually appropriate.

Routine repeat scans are often unnecessary after a secure diagnosis. Follow-up may still be considered when the imaging is uncertain, the lesion is changing, symptoms are present, or you have cirrhosis or a history of cancer. This is planned according to the specific imaging

findings and medical background.

Before treating a hemangioma for abdominal symptoms, clinicians usually look for more common causes of pain, nausea, or early fullness. Removing a hemangioma will not help symptoms that come from another condition.

Treatment may be considered if the lesion causes clear and persistent symptoms, compresses nearby structures, grows in a way that raises concern, or leads to a complication. Options include:

The choice depends on the lesion's location, size, symptoms, imaging features, and the amount of healthy liver around it. All procedures have risks, so treatment is not normally recommended for a stable, symptom-free hemangioma.

There is no medicine that reliably removes a hepatic hemangioma. No specific diet or supplement has been shown to shrink one.

- Surgery: The hemangioma may be separated from the surrounding liver, called enucleation, or removed with part of the liver, called resection.
- Arterial embolization: A specialist blocks part of the blood supply to shrink the lesion or control bleeding.
- Ablation: Heat or another form of energy destroys tissue. This is suitable only in selected situations.
- Liver transplantation: Reserved for exceptionally rare, severe cases that cannot be managed another way.

Complications

Complications are uncommon. They are more likely with very large lesions, although most large hemangiomas still do not cause serious problems.

Possible complications include pressure on the stomach, bile ducts, major blood vessels, or other nearby structures. This can contribute to fullness, discomfort, swelling, or, rarely, jaundice.

Bleeding within the hemangioma or rupture into the abdomen is rare. When rupture occurs, it can cause severe pain and internal blood loss. Trauma to the abdomen may increase concern when a large lesion is present.

A very rare complication is Kasabach-Merritt syndrome. In this condition, platelets and clotting proteins become trapped or used up within a large vascular lesion. Platelets are blood cells that help stop bleeding. The result can be unusual bruising, bleeding, or abnormal clotting

tests.

Treatments also have possible complications, including bleeding, infection, injury to bile ducts, or loss of healthy liver tissue. This is why procedures are reserved for situations in which the expected benefit is greater than the risk.

Prevention

There is no known way to prevent a hepatic hemangioma. It is probably related to how blood vessels formed rather than to lifestyle.

Avoiding alcohol, changing your diet, or taking supplements will not prevent or remove a hemangioma. Healthy habits can support your liver overall, but they do not specifically treat this condition.

You generally do not need to avoid exercise or everyday activity after a typical hemangioma is found. If a lesion is unusually large or you take part in activities with a high risk of abdominal impact, ask about whether any personal precautions are appropriate.

Living with it and what to expect

For most people, a hepatic hemangioma has little effect on daily life. Once the imaging diagnosis is clear, it may require no treatment, restrictions, or continuing surveillance.

Some hemangiomas remain unchanged for years. Others slowly increase or decrease in size. Growth does not mean that the lesion is becoming cancerous, because hemangiomas do not usually transform into cancer. A change in appearance may still lead to more imaging to confirm what is happening.

If follow-up scans are advised, their purpose is usually to document stability or clarify an uncertain finding. Follow-up is different from treatment and does not necessarily mean that the lesion is dangerous.

Pregnancy is usually possible with a hepatic hemangioma. Routine pregnancy care may be sufficient for a small, symptom-free lesion. A large or previously symptomatic lesion may need an individual monitoring plan because hormonal and physical changes can sometimes affect it.

Tell healthcare professionals about the hemangioma when discussing new abdominal symptoms or reviewing earlier liver scans. Keeping a copy of the imaging report can help avoid repeating tests when care is provided in a different clinic.

Most people continue their usual work, exercise, eating habits, and family life. Those who

require a procedure may need ongoing imaging for a period afterward, depending on the treatment and whether any lesion remains.

When to get medical help

Arrange a routine appointment if you have ongoing upper abdominal discomfort, repeated nausea, early fullness, or questions about an imaging result. These symptoms are often caused by something other than the hemangioma, but they deserve assessment if they persist.

Contact your healthcare team promptly if known symptoms become noticeably worse, you develop jaundice, or follow-up imaging was recommended but has not been arranged. Jaundice means yellowing of the skin or whites of the eyes.

Seek urgent medical assessment for sudden, severe, or persistent abdominal pain, particularly after a blow or injury to the abdomen.

Call emergency services if severe abdominal pain occurs with:

These symptoms do not prove that a hemangioma has ruptured. They can indicate internal bleeding or another serious condition that requires immediate care.

- Fainting, marked dizziness, or confusion
- Pale, cold, or clammy skin
- Severe weakness or a racing heartbeat
- Trouble breathing
- Vomiting blood or signs of major bleeding

Common questions

Is a hepatic hemangioma cancer?

No. It is a benign collection of blood vessels, not liver cancer. A typical hemangioma does not usually turn into cancer. If imaging is not typical, further scans may be needed to make sure the lesion has been identified correctly.

Can a liver hemangioma go away on its own?

Some remain stable, some grow slowly, and some become smaller. It is not possible to predict the exact course of an individual lesion. Most do not need to disappear because they cause no harm.

How big is too big for a liver hemangioma?

There is no single size that automatically requires treatment. Decisions are based on symptoms, complications, growth pattern, location, and certainty of the diagnosis. A large lesion without symptoms may still be observed.

Do I need regular scans for the rest of my life?

Usually not after a typical hemangioma has been securely diagnosed in an otherwise healthy liver. Repeat imaging may be appropriate if the appearance is uncertain, symptoms develop, or other liver or cancer risks are present.

Can I drink alcohol with a liver hemangioma?

Alcohol does not cause the hemangioma or make it cancerous. However, alcohol can harm the liver in other ways. Whether drinking is appropriate depends on your overall liver health, medicines, and other medical conditions.

Can I get pregnant if I have a hepatic hemangioma?

In most cases, yes. Pregnancy is not routinely discouraged for a typical, symptom-free hemangioma. If the lesion is very large, growing, or has caused symptoms, discuss pregnancy planning and whether monitoring is needed.

Sources

- American College of Gastroenterology. ACG Clinical Guideline: Focal Liver Lesions . The American Journal of Gastroenterology . 2024;119(9):1730-1772.
- European Association for the Study of the Liver. EASL Clinical Practice Guidelines on the Management of Benign Liver Tumours . Journal of Hepatology . 2016;65(2):386-398.
- Gore RM, Pickhardt PJ, Mortele KJ, and colleagues. Management of Incidental Liver Lesions on CT: A White Paper of the ACR Incidental Findings Committee . Journal of the American College of Radiology . 2017;14(11):1429-1437.
- Leon M, Chavez L, Surani S. Hepatic hemangioma: What internists need to know . World Journal of Gastroenterology . 2020;26(1):11-20.
- Mayo Clinic. Liver hemangioma: Symptoms and causes; Diagnosis and treatment . Mayo Foundation for Medical Education and Research.