James Emem Grace

18/MHS01/192

Anatomy

ANA 202

WHY THE LIVER RECIEVES MORE BLOOD FROM THE HEPATIC VEIN?

A portal system is a venous structure that enables blood from one set of capillary beds to drain into another set of capillary beds, without first returning this blood to the heart. The majority of capillaries in the body drain directly into the heart, so portal systems are unusual.

The hepatic portal system connects the capillaries of the gastrointestinal tract with the capillaries in the liver. Nutrient-rich blood leaves the gastrointestinal tract and is first brought to the liver for processing before being sent to the heart. Here, carbohydrates and amino acids can be stored or used to make new proteins and carbohydrates. The liver also removes vitamins and cofactors from the blood for storage, as well as filters any toxins that may have been absorbed along with the food. When any of these stored substances are needed, the liver releases them back into circulation through the hepatic veins.

Clinical Anatomy

[Portal hypertension](https://en.wikipedia.org/wiki/Portal_hypertension) is a condition in which the blood pressure of the portal venous system is too high. It is often the result of [cirrhosis](https://en.wikipedia.org/wiki/Cirrhosis) of the liver.

2. Diseases of the liver

* Diseases caused by viruses, such as [hepatitis A](https://medlineplus.gov/hepatitisa.html), [hepatitis B](https://medlineplus.gov/hepatitisb.html), and [hepatitis C](https://medlineplus.gov/hepatitisc.html)
* Diseases caused by drugs, poisons, or too much alcohol. Examples include [fatty liver disease](https://medlineplus.gov/fattyliverdisease.html) and [cirrhosis](https://medlineplus.gov/cirrhosis.html).
* [Liver cancer](https://medlineplus.gov/livercancer.html)
* Inherited diseases, such as [hemochromatosis](https://medlineplus.gov/hemochromatosis.html) and [Wilson disease](https://medlineplus.gov/wilsondisease.html)

1. [Hepatitis](https://en.wikipedia.org/wiki/Hepatitis) (inflammation of the liver): is caused by various viruses ([viral hepatitis](https://en.wikipedia.org/wiki/Viral_hepatitis)) also by some [liver toxins](https://en.wikipedia.org/wiki/Hepatotoxicity) (e.g. [alcoholic hepatitis](https://en.wikipedia.org/wiki/Alcoholic_hepatitis)), autoimmunity ([autoimmune hepatitis](https://en.wikipedia.org/wiki/Autoimmune_hepatitis)) or hereditary conditions.
2. Primary [liver cancer](https://en.wikipedia.org/wiki/Liver_cancer):  most commonly manifests as [hepatocellular carcinoma](https://en.wikipedia.org/wiki/Hepatocellular_carcinoma) or [cholangiocarcinoma](https://en.wikipedia.org/wiki/Cholangiocarcinoma), rarer forms include [angiosarcoma](https://en.wikipedia.org/wiki/Angiosarcoma) and [hemangiosarcoma](https://en.wikipedia.org/wiki/Hemangiosarcoma) of the liver. (Many liver malignancies are secondary lesions that have metastasized from primary cancers in the gastrointestinal tract and other organs, such as the kidneys, lungs
3. [Cirrhosis](https://en.wikipedia.org/wiki/Cirrhosis): is the formation of fibrous tissue ([fibrosis](https://en.wikipedia.org/wiki/Fibrosis)) in the place of liver cells that have died due to a variety of causes, including viral hepatitis, alcohol overconsumption, and other forms of liver toxicity. Cirrhosis causes chronic [liver failure](https://en.wikipedia.org/wiki/Liver_failure).
4. [Fatty liver disease](https://en.wikipedia.org/wiki/Fatty_liver) (hepatic [steatosis](https://en.wikipedia.org/wiki/Steatosis)): is a reversible condition where large vacuoles of [triglyceride](https://en.wikipedia.org/wiki/Triglyceride) fat accumulate in liver cell. [Non-alcoholic fatty liver disease](https://en.wikipedia.org/wiki/Non-alcoholic_fatty_liver_disease) is a spectrum of disease associated with obesity and [metabolic syndrome](https://en.wikipedia.org/wiki/Metabolic_syndrome).
5. [Alcoholic liver disease](https://en.wikipedia.org/wiki/Alcoholic_liver_disease): is a hepatic manifestation of [alcohol overconsumption](https://en.wikipedia.org/wiki/Alcohol_abuse), including [fatty liver disease](https://en.wikipedia.org/wiki/Fatty_liver), alcoholic hepatitis, and [cirrhosis](https://en.wikipedia.org/wiki/Cirrhosis). Analogous terms such as "drug-induced" or "toxic" liver disease are also used to refer to disorders caused by various drugs.

Reference

Courses.lumenlearning.com

Medlineplus.com