

Liver is the largest
gland



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Liver

Liver is just not like any other organ, which can be compensated by other organs or human machines. It is one of the important parts of body which performs many vital functions. Physically it is positioned in the upper part of the abdomen precisely on the right side, just beneath the diaphragm. Its physical looks are reddish brown with four lobes bulging out. Basically liver's main role is to store and filter blood. Without liver all the sugar intake by human body would never be passed out until it converts sugar to glycogen which dissolves in blood and excretes the waste. It also produces biochemical such as bile which helps in digesting food. Liver is the largest gland in the human body. It is also a complex structured gland. This organ at any moment stores around 1 pint of blood, which is equivalent to 13 percent of human blood.

The liver basically has 4 sections, which is also known in medical terminology as lobes. These lobes are divided equally on either side of the liver. The lobes are structured in multisided units which we call the lobules. Amazingly a liver has around fifty to hundred lobules. Within the lobules are separators called cavities, which makes the liver spongy in order to hold blood.

Furthermore these lobules have a bile capillary, which transfers the bile away from liver. As soon as the bile is excreted out of the liver it forms a hepatic duct. A liver produces bile even when there is no food to process. In this situation the excess bile has to be excreted through the gall bladder.

Amazingly scientific researchers have found more than 500 functions of liver. As mentioned above some functions would be to produce bile by hepatic cells, secrete glucose, create vitamins, and to convert ammonia to urea and <https://assignbuster.com/liver-is-the-largest-gland/>

other metabolic activities. Other than this the liver main function is to digest food. This is done by the bile produced by liver which flows through the small intestine and dissolves the food we eat.

Historically liver in Greek was named as hepatic, thus today all the medical term related to liver starts with hepato. Let us now look at the key feature of liver, which is the blood flow. The liver is also called the dual blood supply because it transfers 75 percent of blood supply around the body. Along with blood it contains oxygen supply which is required to reach in all parts of the body. Its key feature of eliminating waste and observing minerals and nutrients make it vital for survival. Thus without the liver a person would loose energy and its blood would not be able to clot normally.

Apart from blood supply it also acts a reservoir for the human body essential vitamins. It stores glouucose, vitamin A, Vitamin D, Vitamin B-12, Iron and copper. After storing these it also excretes albumin, which is an important ingredient for blood serum. It also synthesizes angiotensinogen, which is essential for the kidney to raise blood pressure when needed. Not only this, liver also stores food in itself. This food is released when the body requires the minerals and nutrients it needs in the blood.

Every organ of a human body is prone to diseases. Due to the fact it is a vital organ needed to function other organs, its lack of functioning would harm the whole body and survival will become critical. Commonly hepatitis A, B, C, E is associated with liver disease. But there are many more such as alcohol damage, cancer, fatty liver and drug damages, which affects the liver.

When a person is affected with one of the diseases mentioned above then the risk of getting jaundice increases. Basically the reason behind this is the increased level of bilirubin produced by distortion of red blood cell. Bilirubin is a yellow fluid produced in the liver when worn-out red blood cells are broken down. The liver is a strong gland and holds a great power to regenerate and become stable again. But if the damage is high then symptoms could lead to a disastrous outcome. In order to prevent this, a liver function test is performed. A liver function test is clinical laboratory test, whereby blood assays are designed to show the patients liver state. Basically liver diseases are hard to detect at start, this is because the signs of diseases are low and undetectable at early stage to the patient. Some of the signs are pale stools, dark urine, swelling and bruising. These symptoms may be caused by other conditions also, thus it is difficult to identify the real source.

One of the major diseases called diabetes is sometimes led by fatty liver, commonly occurring in obese person. Some people may also experience autoimmune hepatitis. This condition has to do with the body producing antibodies that actually attack liver cells. Normally Young to middle aged women are often diagnosed with this condition but it is becoming more common among elderly people. Some of the symptoms may include extreme fatigue, jaundice and even blood tests that show there is liver damage (liver tissue, 2010).

High alcohol consumption is one of the most common causes of liver disease. However, high alcohol consumption as a cause for abnormal liver test results is often not evident and may even be denied. A readily

obtainable blood test to reveal whether alcohol is the likely cause would be valuable. However, many patients who doubtless consume high amounts of alcohol and indeed are alcohol-dependent and display elevated serum aminotransferase levels do not show a high AST/ALT ratio (Nyblom, 2004). Alcohol consumption leads to cancer of liver, pancreas, mouth, and throat. The seriousness of liver disease can be seen by United States statistic of 43967 people death due to liver cancer itself. Liver cancer is regarded as the seventh biggest cause of death in United States (Hilal, Ali A., and John D. S. Gaylor, 2006).

In order to prevent these diseases, an individual should maintain good hygiene. As mentioned above he/she should restrain from drinking alcohol as it could lead to cirrhosis of the liver. He/she should also refrain from going in a chemical or biohazard factory, whereby the pollutants may enter the lung and damage the liver. If the person's diagnostic test results in a disease, the person would require staying in bed, have lots of water and eat well. As liver is a combination of sensitive tissues good care is vital.

The striking feature of liver is that it is the only gland able to regenerate its lost tissues. If the liver is cut 75%, the remaining 25% has the ability to regenerate into a whole liver. This process takes only a week or maximum few weeks. This capability of liver has been acknowledged since the ancient Greek times. In fact there is a story about Prometheus being chained to a rock in the Caucasus mountain and his liver being partially eaten during the day by an eagle only to "regenerate" in the night. This scenario actually symbolizes how a liver half eaten could become full (Michalopoulos, George, 1997). For example, surgeons can remove a section of a healthy liver from <https://assignbuster.com/liver-is-the-largest-gland/>

an adult and transplant it into a child who has a diseased liver. The adult's liver will rapidly regenerate and be restored to full size. The child's new liver will grow as the child grows (thinkquest, 2010).

Work cite

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