



Liver

Second year ,Pharm-D students

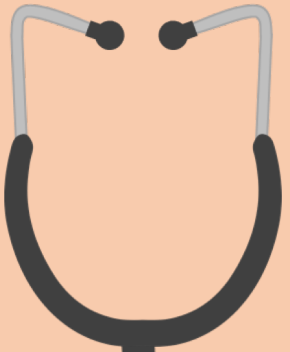
Made by Sara Ali 2574 and Haneen Saad 2468.





ILO's

- Discuss the functions of the liver.
- Discuss how food would destroy our liver and food would protect it.





Introduction

The liver is classified as a part of the digestive system. It is the largest solid organ and the largest gland in the human body. It is in a cone shape with reddish-brown color and rubbery texture. It is located in the upper part under the ribs to the left of the stomach and below the lungs. It has four lobes divided into major(left and right)and minor(caudate and quadrate).

However, the liver contributes about 2% of the total human body weight, so about 1.5 kilograms in adults.

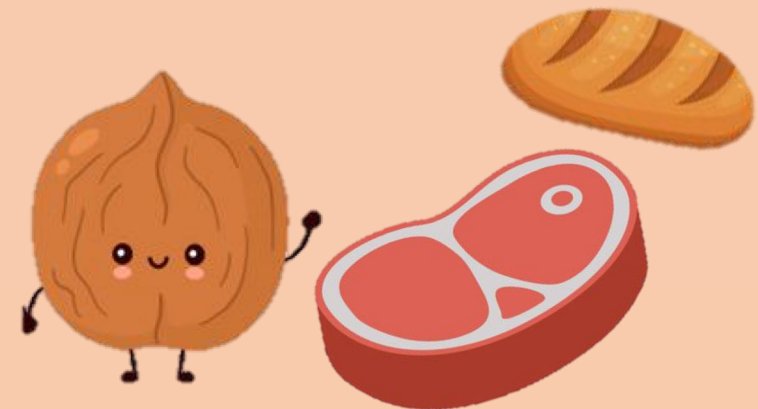
Functions

- Excretion drugs and other substance.
- Metabolism of carbohydrates, proteins and fats.
- Formation of bile and coagulation factors.
- Storage blood, vitamins and iron.
- Filtration blood.



Functions

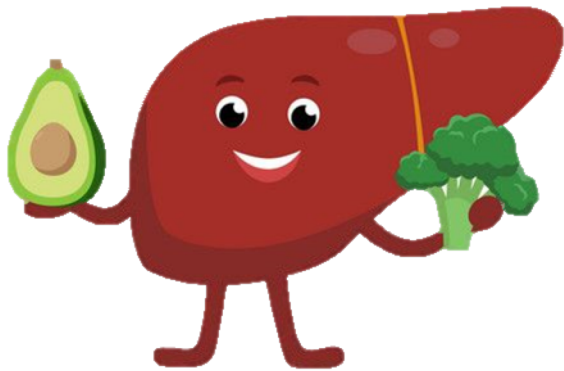
- The liver stores iron as ferritin.
- Metabolic functions (Carbohydrate, protein and fat)





- The liver functions as a blood reservoir.
- The liver is a storage site for vitamins.
- The liver forms the blood substances which used in coagulation.

**Food
Would destroy
your liver
And
Food would
protect it.**





Food would destroy your liver

First: sugar

When glycogen stores are full and there is excess glucose in the blood, insulin will convert it into fat cells. One of the areas storage fat cells is the liver. The liver cells are slowly replaced by fat cells, leading to non-alcoholic fatty liver disease . Your liver can literally becomes fatty by eating too much sugar.



Second: Fried food



Your liver main function is to break down nutrients. Fried food and other high fat items can cause fatty liver disease, so it's better to avoid them. The extra fat can cause swelling and scarring which permanently damages the organs ability to break down nutrients.





Third: alcohols

As long as you drink alcohol, 80% travels to intestines and then to the liver for detoxification. When alcohol reaches the liver, it produces a toxic enzyme called acetaldehyde acid which damages liver cells.



Food would protect your liver

First: coffee

Coffee protects our liver by decreases inflammation and causes a rise in anti-oxidant levels in the liver.

In all it lower the risk of developing fatty liver and cancer.



Second: almonds

Almonds are good sources of vitamin E -a nutrient that is known to help protect against fatty liver disease.



Third: avocados

The vitamin E and vitamin k in avocados act as an anti-inflammatory to protect the liver from harmful inflammation.



References



- <https://www.narayanahealth.org/blog/foods-to-avoid-for-healthy-liver/>
- <https://www.youtube.com/watch?v=jj10s60y8fU>
- <https://www.youtube.com/watch?v=46w4zoG8s04>
- Guyton and Hall Textbook of Medical Physiology , chapter 70 (the liver as an organ), page 837-840
- <https://www.healthline.com/nutrition/11-foods-for-your-liver>