

The Liver and its Functions.*

THE liver is one of the largest and most important organs of the body. It weighs between four and five pounds, and is a little larger proportionately in women than in men. It is somewhat irregular in form, consisting of several lobes, each of which is made up of minute lobules. Each lobule is in turn composed of cells, and all is bound together by a framework of fibrous tissue. The liver contains two distinct sets of blood-vessels, one composed of branches of the hepatic artery, which brings arterial blood to supply the organ with nourishment. The other is composed of branches of the portal vein, a large vessel which collects the venous blood from the stomach, intestines, pancreas, and spleen. A third system of vessels, the bile ducts, originates in the lobules of the liver; they unite to form a large duct, which conveys the bile to the intestine.

Unlike most other organs of the body, the liver has a variety of functions. It secretes a digestive fluid, the bile, which is peculiar in the fact that it is also an excretion containing waste matter to be eliminated through the bowel, as well as acting a part in the digestion of food. The bile is nature's own cathartic, and when secreted in normal quantity, stimulates the action of the bowels and tends to keep them in proper condition. It also acts as an antiseptic, preventing the fermentation of food in the intestines.

During digestion the starchy foods are changed to sugar, which together with the sugar, taken as such, is absorbed by the blood-vessels of the stomach and intestines, and taken to the liver through the portal vein. The liver changes this sugar into a form of starch known as glycogen, which it stores up within its tissues, and afterwards gradually reconverts it into sugar and supplies it to the body as it is required. If all the sugar, taken at any ordinary meal, were carried at once into the circulation, evil consequences might follow.

The peculiar function by which the liver stores up glycogen within its tissues is very usefully employed in protecting the body against various mineral and organic poisons, such as arsenic, lead, alcohol, and nicotine, and the poisons formed in the stomach and intestines by the fermentation of undigested food. These are to a certain extent retained within its tissues and afterwards slowly eliminated. This is the reason why the liver suffers so great damage when any of these poisons are taken into the system. It also explains why a torpid condition of the organ so commonly goes hand in hand with bad digestion.

An excessive use of sweet and starchy foods also has a very injurious effect on the liver by over-

taxing its working power. This calls an excessive amount of blood to the organ, producing an abnormal congestion. Repeated overworking of the liver from this or other causes, brings on a state of chronic congestion resulting in torpidity and enlargement of the organ.

In addition to the functions already cited, the liver is known to be an excretory organ, removing from the blood certain waste substances, as well as preparing certain waste materials for elimination by other excretory organs.

We have good reasons for believing that many constitutional affections, as well as disordered conditions of other organs, are due to a diseased condition of the liver. Among the many disorders that may result from derangement of the liver may be mentioned headache, dizziness, neuralgia, jaundice, hæmorrhoids, dyspepsia, sleeplessness, hypochondria, epilepsy, mania, paralysis, palpitation of the heart, chronic catarrh, and bronchitis, asthma, and many skin diseases, as psoriasis, and eczema.

Having such a variety of important functions, and so much depending upon their proper performance, great care should be exercised to preserve this organ in a healthy state. In order to do this, an abundance of fresh air and systematic exercise should be taken; the diet should be plain and simple. Overeating, and especially the excessive use of fats, sugar, and sweet food, should be carefully avoided, also the use of stimulants and narcotics, as alcohol, tobacco, tea, coffee, all irritating condiments, such as pepper, mustard, etc., and the frequent use of cathartics.

Appointments.

MISS ELIZABETH B. NORRIS has been appointed Matron of the Crewe Isolation Hospital. Miss Norris was trained at the Worcester General Infirmary, and subsequently held the post of Charge Nurse for four years at the Cambridge Hospital for Infectious Diseases. Miss Norris at present holds the position of Charge Nurse in the Birmingham City Fever Hospital, so that she has had considerable experience in the nursing of infectious diseases. In addition to the charge of the Isolation Hospital, Miss Norris will also undertake, with her new duties, the general superintendence of the Small Pox Hospital Farm.

HONOURS FOR NURSES.

THE Queen has conferred the decoration of the Royal Red Cross upon Mrs. Ann Ayre Hely and Miss Sarah Anne Terrôt, in recognition of services in tending the sick and wounded.

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