The liver is brown in color, has a smooth surface, and weighs 1200–1500g, i.e., about two percent of body weight.The liver receives both arterial blood through the hepatic artery, and venous blood from the gastrointestinal tract, the pancreas and the spleen which is collected in the portal vein.One–fifth to one–third comes via the liver artery and two thirds to four fifths via the portal vein.The blood vessels branch in the liver into a fenestrated capillary network designed to facilitate the bidirectional traffic of molecules and molecular aggregates such as lipoproteins, between the blood and liver cells, and the elimination from blood of bacteria, virus, and ageing blood cells.Bile is secreted from the canalicular pole of the hepatocytes into canaliculi which converge into the bile ducts that transport bile into the gallbladder and into the duodenum.Its brown color is due to the large content of mitochondria and cytochromes,iron–containing enzymes that participate in the aerobic energy production ofthe mitochondria.When surgical resection of a large part of the liver is needed, it recreates new liver tissue from the part that is left, so that the liver returns to its previous size.All the metabolic transformations and the transport and secretion processes that take place in the liver require a lot of energy.The liver blood flow,however, amounts to 20–25 percent of cardiac output at rest.

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