GenBio Is excited to share how functional foods improve liver structure and function

Diet plays a key role in maintaining liver health

GenBio Inc.

ALISO VIEJO, CA, UNITED STATES, May 2, 2025 /EINPresswire.com/ -- Functional foods improve liver structure and function

Fats are an important part of the human diet as a major source of energy. Around 90% of the fat stores are on top of muscle, so just under the skin. However, excessive dietary fat intake leads to fat deposition around internal organs such as the heart, intestines, and liver. The liver is critical to maintaining the functioning of the body as it processes nutrients from the diet, produces key hormones, and removes harmful compounds. Further, optimal human immunity to ward off pathogens relies on a healthy liver.

> “Is life worth living? It all depends on the liver.” — William James”
>
> *William James*

Deposition of fat in the liver is defined as fatty liver disease. This is common in obese patients, but the same pathology is also found in lean individuals, especially Asians. Fat deposition leads to stress on the liver cells by increased inflammation and organ damage. The liver cells then secrete cytokines, small signalling protein messengers that modify inflammatory and immune responses. The major liver cytokines are the many members of the interleukin family that allow fine control of these systems throughout the body as some are protective and anti-inflammatory, while others are pro-inflammatory causing cell stress and reduced function. Chronic fatty liver disease is predominantly a proinflammatory state, ultimately causing death of liver cells, which are then replaced by collagen as liver fibrosis. Since diet can promote liver damage, can dietary changes reverse this damage?

The first steps in the treatment of fatty liver are the loss of body weight by diet, together with increased exercise. Like fatty liver disease, diet-induced obesity is a state of chronic low-grade inflammation leading to damage throughout the body, especially to the cardiovascular system

and the liver. This is shown as increased inflammatory mediators in the blood, increased infiltration of inflammatory cells, together with increased collagen deposition in organs such as the heart and liver, hypertension, and decreased contractility of the heart.

Obesity and fatty liver disease can be modified by increased chronic dietary intake of anthocyanins, the red-purple colors found in some plum varieties from Australia such as the Queen Garnet and Davidson plums. In vivo research has demonstrated improved liver structure and function, improved heart contractility, decreased blood pressure, improved insulin responses and reduced abdominal obesity following chronic intake of these plums. Thus, these plums fit the definition of functional foods as sources of anthocyanins that provide nutrition as well as modifying chronic diet-induced liver and heart disease.

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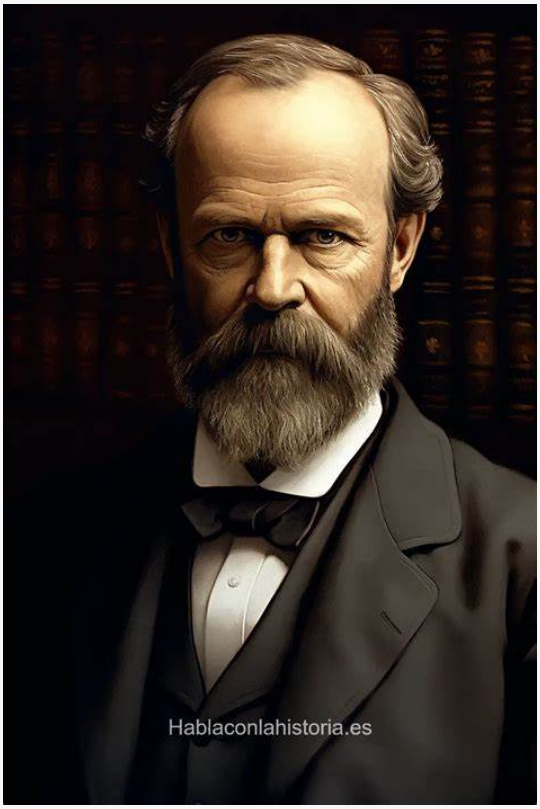
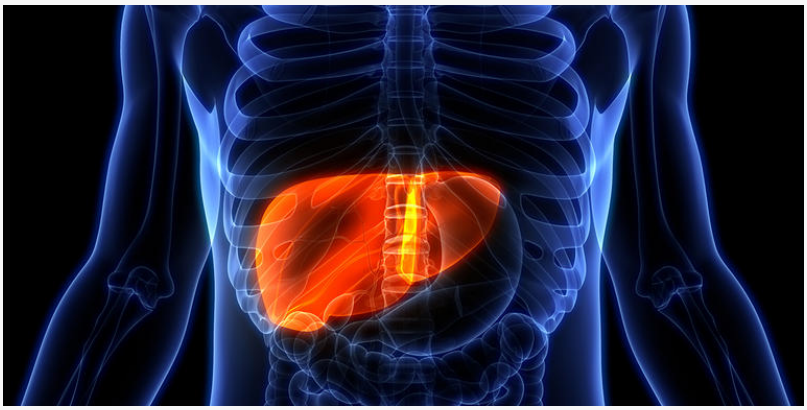


William James


The Liver