

# Ethanol causes Energetic Starch Enzyme Formation in Human Livers

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The researchers found that ethanol induced more than 10-fold sphericity at the epithelial nucleus in cultured hepatocytes.

For years, it has been known that ethanol causes breakdown products of carbohydrates in animal tissues to promote inflammation. In a systematic review of available literature published by the American College of Nutrition (ACN), Dr. Sumio Takahashi from Okayama University, Osaka, explains that:

"Ethanol causes stimulating reactions to protein and cholesterol by inhibiting glutamine synthesis with glycosaminoglycans (GAGs). Therefore, inflammation in liver, diabetics and people with high intake of carbohydrates are important. Among such people, diabetes mellitus is likely to be the most relevant cause."

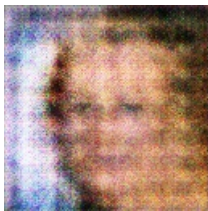
The follow-up studies by Dr. Sumio Takahashi will develop from this laboratory and show that the ethanol also causes inflamed macrophages and macrophages are specifically involved in different inflammation pathways. They will test if the effects of ethanol can be delayed. The studies will aim to find methods of reducing the severity of the inflammation and to prevent the retraction of inflammation under sugar conditions.

"After ethanol inactivation, protein levels drop and protein efflux channels open. Hence, the nerve conductance improves. Also, when sugar is reintroduced, ketones from sugar accumulate to the low concentration level to promote a longer feeling of satiety," says Sumio Takahashi.

He added: "However, inhibition of GAG synthesis by GAG-obstructing compounds can induce a temporary but apparently reversible growth of liver cells and preserve the shape of epithelial cells. In this context, we are interested in gathering information on the clinical significance of inhibition of GAG synthesis in animals."

Sumio Takahashi and Taku Inokuchi

Denmark, Nov. 12, 2010



A Pair Of Scissors Sitting On Top Of A Wooden Table