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Increase in coffee consumption could provide protective effect in non-alcoholic fatty liver disease

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Adding coffee to the diet of people with non-alcoholic fatty liver disease (NAFLD) could help reverse the condition, according to a new study conducted in mice presented at The International Liver Congress 2016 in Barcelona, Spain.

The study found that a daily dose of coffee (equivalent to six cups of espresso coffee for a 70kg person) improved several key markers of NAFLD in mice that were fed a high fat diet. These mice also gained less weight than others fed the same diet without the dose of caffeine.

The scientists also showed how coffee protects against NAFLD by raising levels of a protein called Zonulin (ZO)-1, which lessens the permeability of the gut.1 Experts believe that increased gut permeability contributes to liver injury and worsens NAFLD.2 People suffering from NAFLD can develop scaring of the liver, also known as fibrosis, which can progress to a potentially life-threatening condition known as cirrhosis.3

"Previous studies have confirmed how coffee can reverse the damage of NAFLD but this is the first to demonstrate that it can influence the permeability of the intestine," said Vincenzo Lembo, at the University of Napoli, Italy and study author. "The results also show that coffee can reverse NAFLD-related problems such as ballooning degeneration, a form of liver cell degeneration."

Researchers analysed three different groups of mice over a 12 week period. Group one received a standard diet, group two had a high fat diet and group three was given a high fat diet plus a decaffeinated coffee solution.

Coffee supplementation to a high fat diet significantly reversed levels of cholesterol (p