

E-cigarettes can be injurious for your liver, know why

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The findings of the study, in mice, suggests that using e-cigarettes may lead to an accumulation of fat in the liver. (Reuters)

If you are using e-cigarettes then stop doing so. A new study indicates that exposure of e-cigarettes is associated with higher risk of non-alcohol fatty liver diseases. The findings of the study, in mice, suggests that using e-cigarettes may lead to an accumulation of fat in the liver. "The popularity of electronic cigarettes has been rapidly increasing in part because of advertisements that they are safer than conventional cigarettes," said lead author Theodore C. Friedman, Professor at the Charles R. Drew University of Medicine and Science in Los Angeles.

"But because extra fat in the liver is likely to be detrimental to health, we conclude that e-cigarettes are not as safe as they have been promoted to consumers," Friedman added. In the 12-week study, presented at the ENDO 2018: The Endocrine Society's 100th Annual Meeting and Expo, researchers studied mice missing the gene for apolipoprotein E, which makes them more prone to developing heart disease and fat in the liver.

All of the mice were fed a diet relatively high in fat and cholesterol. One group of mice was put in a chamber that exposed them to e-cigarette aerosol, so that their blood nicotine levels were similar to that of smokers and e-cigarette users. A second group of mice were exposed to saline aerosol. The researchers collected liver samples, and looked at genes in the liver affected by e-cigarettes using a technique called RNA sequence analysis.

They found changes in 433 genes that were associated with fatty liver development and progression in the mice exposed to e-cigarettes. The researchers also found that genes related to circadian rhythms (the body clock) were changed in mice exposed to e-cigarettes. Circadian rhythm dysfunction is known to accelerate the development of liver disease including fatty liver diseases.