**Warning over cherry flavoured e-cigarettes: Study finds they irritate the airways more than other types - and even tobacco**

* **Cherry flavoured e-cigarettes have higher levels of benzaldehyde**
* **Benzaldehyde is a respiratory irritant used in food and flavourings**
* **Study: 30 cherry e-cig puffs have higher levels than regular cigarettes**

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Cherry flavoured e-cigarettes may be more harmful to health than other types - or even regular cigarettes, new research suggests.

Scientists found the flavour exposed vapers to significantly higher levels of a chemical that irritates the airways.

Many e-cigarettes contain flavourings – and most of them are recognised as safe when used in food.

However, there are concerns about the potential harm when these flavours are inhaled – especially long-term.

One in particular - benazaldehyde - is routinely used in food and cosmetics, and is a key ingredient in 'natural' fruit flavourings.

But because it has been shown to irritate the airways, researchers wanted to find out how much of the chemical fruit flavoured e-cigarette liquid contained.

The study, conducted at the Roswell Park Cancer Institute, found levels of benazaldehyde inhaled in 30 puffs of a cherry flavoured e-cigarette were often higher than those from a conventional cigarette.

First, the researchers grouped 145 e-cigarette liquids bought online according to their labeling.

There were 40 berry or tropical fruit flavoured, 37 tobacco flavoured, 15 alcohol flavoured, 11 chocolate or sweet flavoured, 11 coffee or tea flavoured, 10 mint or menthol flavoured, 10 cherry flavoured and 11 classified as ‘other’.

The scientists then generated aerosol vapor through an automatic smoking simulator.

Thirty puffs were taken of each e-cigarette liquid, in two sets of 15 puffs.

The puff sets had a five minute interval in between – with the quantities of benazaldehyde measured.

Daily inhaled doses of benazaldehyde were then calculated for each flavour.

When making the calculations, the scientists assumed an experienced vaper puffs on an e-cigarette 163 times a day.

They then compared the inhaled dose from 30 puffs to that of a conventional cigarette.

The tests revealed benzaldehyde in 108 out of 145 e-cigarettes – or 74 per cent.

And the highest levels were detected in cherry products – with nearly 43 times the yields of the chemical compared to other flavours.

The scientists noted their work was conducted using a simulator, so it may not reflect actual inhalation from vaping.

However, they said it still points to a potential risk associated with cherry flavoured e-cigarettes.

Writing in the journal Thorax, they said: ‘Users of cherry flavoured products may inhale significantly higher doses of benzaldehyde compared with users of other flavoured products.

‘Although e-cigarettes may be a promising harm reduction tool for smokers, the findings indicate using these products could result in repeated inhalation of benzaldehyde, with long-term users risking regular exposure to the substance.’