**Living in a city harms lung cancer patients: Sufferers with low exposure to air pollution 'live for twice as long'**

* **Patients with early stage adenocarcinoma are expected to live for 5 years**
* **But sufferers exposed to pollutants have a life expectancy of just half that**
* **High levels of four pollutants were linked to an increased risk of death**
* **Researchers tracked more than 352,000 patients over a 21-year period**

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Air pollution in cities could cause lung cancer patients to die earlier, scientists have claimed.

Early stage sufferers who have low exposure to dangerous gases in the air live for twice as long, a new study has found.

Patients with an early diagnosis of adenocarcinoma - the most common form of lung cancer - face a life expectancy of five years on average.

But those who frequently inhaled pollutants live for just 2.4 years from their diagnosis, researchers discovered.

However, patients with low exposure to air pollution lived for just under six years on average.

Researchers from the University of Southern California tracked more than 352,000 patients newly diagnosed with lung cancer over a 21-year period.

They measured their average exposure to nitrogen dioxide (NO2) and ozone (O3) and two other pollutants, PM10 and PM2.5 - using data from air quality monitoring stations.

Risk of death from any cause was then estimated, according to their disease stage and type of tumour.

Calculations proved higher exposures to each of the four pollutants were linked to a much higher risk of death.

Risk of death from any cause was 30 per cent greater for exposure to NO2, 26 per cent greater for exposure to PM10 and 38 per cent for PM2.5.

However, the risk of death from O3 was just four per cent.

But scientists found survival for patients with advanced stages of the disease was poor - irrespective of their exposure levels.

But they note important risk factors such as lifestyle, smoking status and alcohol intake weren't included in their study.

They conclude: 'Our observed associations were clinically significant (increased risk of death depending on stage and pollutant), suggesting that reductions in exposure have the potential to improve lung cancer survival.'

Ambient air pollution is classified as a cancer causing agent by the International Agency for Research on Cancer (IARC).

And the most recent figures from the World Health Organization estimate 1.8 million new cases were diagnosed in 2012 alone.

Dr Jaime Hart, from Harvard Medical School, said the findings underline the importance of the imposition of regulations on air pollution levels.

She added: 'This study, along with two other previously published analyses on the impact of air pollution on cancer survival, provide compelling initial evidence that air pollution may be a potential target for future prevention and intervention studies to increase cancer survival.'

Read more: <http://www.dailymail.co.uk/health/article-3725309/Living-city-harms-lung-cancer-patients-Sufferers-low-exposure-air-pollution-live-twice-long.html#ixzz4NQgNsSkC>   
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