

# The air on cruise ships is 'as polluted as smog-ridden Beijing and is a danger to health'

- Researchers monitored pollution levels on decks of four different cruise ships
- They found air quality was 'comparable to concentrations in polluted cities'
- Study warned when this air is inhaled, it could 'damage the heart and lungs'

By [JENNIFER NEWTON FOR MAILONLINE](#)

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The air quality on cruise ships is as polluted as the smog-ridden cities of Beijing and could endanger human health, a new study has claimed.

Researchers monitored pollution levels on the decks of four different cruise liners over a two-year period.

And they found that the air quality was 'comparable to concentrations measured in polluted cities' and when inhaled it could 'damage the heart and lungs'.



**A new study has claimed that the air quality on cruise ships is as polluted as Beijing**

The **research** was carried out on behalf of campaign group Stand.earth by Dr Ryan David Kennedy of John Hopkins University, Bloomberg School of Public Health in Baltimore.

Dr Kennedy boarded four Carnival cruise ships and took air quality readings on each of them.

The ships were Carnival Liberty sailing from Florida to the Bahamas; Carnival Freedom sailing from Texas to the Caribbean; Holland America MS Amsterdam travelling from Vancouver to Los Angeles; and Princess Cruises Emerald Princess en route from Los Angeles to Mexico.

Working undercover, Dr Kennedy measured the levels of particulate matter (PM) - a term used to describe the mixture of solid particles and liquid droplets in the air. It can be either human-made or naturally occurring.

He took readings on different parts of the ship, including the bow, stern and track, using a P-TRAK Ultrafine Particle Counter.

And the report claimed they showed the highest readings were often at the back of the ship, where outdoor pools are usually located.

Dr Kennedy wrote: 'The average PM readings in the stern areas of each ship were significantly higher than the average readings measured fore of the smokestacks (towards the bow).

'The findings of this study demonstrate that a source of PM – likely, in part from the ship's exhaust system – is contributing to poorer air quality in the stern areas of these cruise ships.

**Researchers found that the air quality on cruise ships was 'comparable to concentrations measured in polluted cities' and when inhaled it could 'damage the heart and lungs'**

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'Concentrations of PM on the decks of these ships are comparable to concentrations measured in polluted cities, including Beijing and Santiago.

'Despite being on the open water and in open air, vacationers and cruise ship staff may be exposed to elevated concentrations of PM.'

After analysing the finished study Kendra Ulrich, a senior shipping campaigner at Stand.earth, said: 'Extremely high levels of air pollution measured on these Carnival Corporation ships suggest this pollution could pose serious health risks to passengers, staff, and people living in port and coastal communities.

'The most shocking finding from this study is that pollution was often highest near the stern of the ships, where passengers are encouraged to exercise.

'This study should be a warning sign for anyone considering booking a cruise, but especially for vulnerable groups such as the elderly and young children or anyone with cardiovascular problems.'

### **Cruise Lines International Association hit back at the report and said cruise ship are an 'easy target' when it comes to air pollution**

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However, a spokesperson for Carnival criticised the report and told MailOnline Travel: 'These so-called fly-by tests are completely ridiculous, inaccurate and in no way represent reality.'

'We test the air quality of our ships and they meet or exceed every requirement.'

'The air quality on our ship decks when in port compares favorably with a typical urban or suburban environment. Independent testing on our funnels - which is the area where the exhaust originates- further validates our claims.'

'This particular organization, for fund raising purposes, is constantly in search of a problem in our industry.'

'The safety of our guests is our top priority and we undertake our cruises in close coordination with national and international regulatory bodies like the EPA to insure the utmost safety of our guests and crew.'

Meanwhile Megan King, spokesperson for Cruise Lines International Association, added: 'Cruise ships are one of the more high-profile and easy-to-target flashpoints when air pollution and emissions are discussed.'

'The cruise industry is only a small part of this issue, an issue which is facing the wider tourism and shipping sector; but we want to be a large part of the solution.'

'Globally, the cruise industry has already invested \$1billion in new technologies and cleaner fuels, to significantly reduce ships' air emissions.'

'Looking ahead, the industry has committed more than \$8billion to construction of highly advanced LNG-fueled cruise ships, which will have even lower emissions and higher energy efficiency.'

'The cruise industry remains committed to continual improvement and is constantly innovating to identify and install new technologies.'

Original Source: [https://www.dailymail.co.uk/travel/travel\\_news/article-6632099/The-air-cruise-ships-polluted-smog-ridden-Beijing-new-study-claims.html](https://www.dailymail.co.uk/travel/travel_news/article-6632099/The-air-cruise-ships-polluted-smog-ridden-Beijing-new-study-claims.html)

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- [www.stand.earth/...](#)
- [The air quality on cruise ships is so bad, it could harm your health, report says - CNN](#)