

## Are air purifiers quiet enough for the bedroom?

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Noise pollution adversely affects the lives of millions of people. Multiple studies have shown the direct links between noise and health.

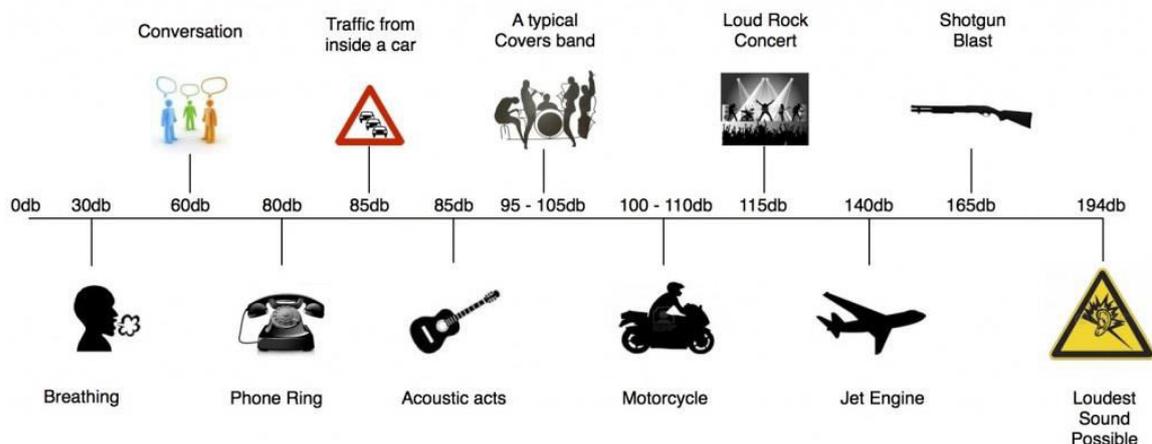
According to one study, around 50,000 people in just the European Union die prematurely each year from heart attacks caused by traffic noise. Another study showed that people living in streets with average noise levels above 65-70dB, the average risk of heart disease is 20% higher than for people living in quieter streets.

Other problems that have been proven to be related to noise include stress related illnesses, high blood pressure, speech interference, hearing loss, sleep disruption, and lost productivity.

### Traditional filter-based air purifiers

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Most air purifiers on the market use HEPA or Electrostatic filters, and these air purifiers typically create a noise of over 70dB at their most effective (highest) fan speed. Indeed, manufacturers tacitly recognise that this noise level is unbearably high in the home, so most have a 'sleep' / 'quiet' mode which makes them a little quieter but effectively cripples their effectiveness!



In other words, to use a traditional air purifier at its most effective fan speed, exposes people to a noise level similar to street traffic inside their home.

In fact, according to the World Health Organisation's **Night Noise Guidelines**, above 40db (rainfall, a refrigerator or an air conditioner at 100 feet, a quiet suburb) of noise can have adverse health effects and noise at this level may well affect most people's sleep.

## So-called 'silent' air purifiers

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You may have come across 'silent' air purifiers, these are air purifiers without a fan.

There are basically two types of 'silent' air purifier:

- The first relies on 'convection currents' to destroy some types of pollution by heating it to a high temperature.

As with all other filter based devices this type has the drawback that it only cleans the air that passes through it, and this is exacerbated by the fact that they rely on convection currents and contains no fan - so silent yes, but effective in drawing in and neutralising contaminants from across an entire room, absolutely not.

- The second type emit 'ions' which attach themselves to some types of pollution which then adheres to objects near to or inside the air cleaner.

The problem here is that the effect is only very local to the device and does not propagate throughout the room. Indeed, a typical manufacturer's own published data shows that only around 1% of ions remain active just three feet (1m) away from the device - so again, silent yes, but effective in drawing in and neutralising contaminants from across an entire room, absolutely not.

## And then there is Airora ...

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Airora doesn't believe in replacing one troublesome pollutant - air pollution, with another - noise pollution.

Airora's patented technology allows it to gently blow its invisible and effective air purifying hydroxyl cascade into a room. The hydroxyls then disperse throughout the entire room by what scientists refer to as 'molecular diffusion' - the random movement of molecules among other

molecules as they collide with each other - without having to rely on air movement within the room itself!

This means that hydroxyls can reach every nook and cranny of a room within seconds, acting on all of the air and all exposed surfaces.



**As all our fan has to do is gently blow the hydroxyls into the room, the Airora air purifier is whisper quiet (35db)!**