

2021158001

**ave you ever experienced un-  
pleasant reactions from flying  
on a commercial airplane?**

**If so, you're not alone. Many  
airline passengers suffer from  
a variety of irritations. Like  
itching, burning eyes. Persis-  
tent coughing or sneezing.  
Unusual drowsiness or dizzi-  
ness. Headaches. Even fevers  
and sore throats.**

**These problems are not  
always caused by jet lag,  
motion sickness or over-  
crowding on planes.**

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What causes poor cabin air quality, and why are passengers so often affected? What, for example, was the cause of an Alaska Air incident in 1977, when 38 out of 54 passengers caught influenza from a single infected passenger?

The answer is simple: inadequate ventilation in the cabin of an airplane.

Dozens of different types of pollutants, microbes and particles are trapped in an airplane's pressurized cabin. Excess ozone and high carbon dioxide levels, for example, are both major contributors to poor in-flight air quality and result in a wide variety of symptoms.

Another factor is the low relative humidity of the air, which drops from a level of approximately 50% on the ground to less than 10% in flight. As a result of this extreme dryness, airline passengers can experience discomfort and other respiratory problems.

Finally, if an airplane is not properly ventilated, contaminants are not removed from the air. The result: **Passengers suffer from stale, polluted air.**

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**THE FLICK  
OF A  
SWITCH**

That's all it takes to improve an airplane's cabin air quality.

Airplane manufacturers are aware of the problems associated with stagnant cabin air. That's why every modern airplane is equipped with an air conditioning and ventilation system that, when properly used, works well.

Unfortunately, in many instances, **airlines aren't using the air circulation systems to their full capacity.** For example, the American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) recommends a minimum of 20 cubic feet of fresh air per person per minute for typical office environments. Yet the typical passenger flying economy class in a Boeing 747 receives only 7 cubic feet of fresh air per minute.

Why?

**To save money.**

It takes fuel to run a plane's ventilation system, and fuel is costly. Therefore, the less fresh air put into the system, the less fuel the airline company uses.

In other words, **money is being saved at the passengers' expense.** That's the real issue here.

With a greater number of passengers flying more frequently than ever before, this is a problem that calls for aggressive action.

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Unfortunately, anti-smokers and some members of Congress have found a scapegoat to account for the poor air quality aboard aircraft: cigarette smoke. They claim that cigarette smoke in the air is to blame for passenger discomfort. That's why Congress has banned smoking aboard commercial flights of 2 hours or less - and is now considering a permanent ban on all U.S. flights. Congress thinks that will solve the air quality problem.

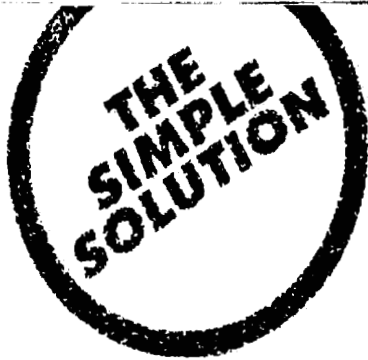
But that's simply not true.

Research has **not** demonstrated that cigarette smoke is a significant problem aboard airplanes.

On the contrary, independent studies have shown that cigarette smoke is **not** the problem. These studies have appeared in such respected scientific journals as Environmental Science & Technology and the Journal of the American Medical Association. One study estimated that a person would have to spend 224 consecutive hours - a full 9 1/3 days - in the nonsmoking section of an airplane to be exposed to the nicotine equivalent of one cigarette.

If anything, visible cigarette smoke in a plane is simply a symptom of a much larger problem: inadequate ventilation on most passenger airplanes. But it's a problem that can be easily solved.

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**T** *f our elected officials honestly want to "clear up" the air quality problem on planes, then they should force the airlines to stop recirculating stale, dirty air and require them to provide 100% fresh air ventilation.*

***A ban on in-flight smoking will not solve the problem of poor air quality. Proper ventilation will.***

*If you're interested in convincing the airlines and our legislators to solve this problem rather than spend their time passing new laws that don't address the real issue, please fill out the enclosed reply card for more information.*

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The statistics cited in **AirPlain Facts** were obtained from numerous scientific journals, studies and organizations. For more information on air cabin quality, please refer to:

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The Tobacco Institute

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