

In English, please



IN-FLIGHT MEDICAL EMERGENCIES IS THERE A DOCTOR ON BOARD?

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Flying back from a vacation in East Asia, Eliot was slowly drifting into sleep in "the giant's belly" (IP 650), when he was woken up by a flight attendant on the public address system: "Your attention, ladies and gentlemen, is there ...".

At once, he pricked up his ears and removed his mp3 player **earbuds**. Ever since he got his private pilot license, he has had dreams of incapacitated pilots, of PA announcements asking passengers with some flying experience to come forward, and of him, Eliot, **assisting** in bringing the aircraft to its destination.

"... a doctor on board?"

Eliot slumped back into his seat. Some other flight, maybe.

A few facts

The sharp decrease in air fares over the past decades has made air travel more accessible to everyone. Air travelers are a fair reflection of the general population and **are prone to** the same ailments. With a growing number of elderly passengers and more people with pre-existing medical conditions wishing to travel, air crews are often confronted with health-related problems among passengers.

Air carriers are not required to document in-flight medical emergencies; therefore there are no accurate, worldwide statistics on the subject. However, studies based on reports provided by individual airlines suggest that roughly 14 in-flight emergencies will happen for every **billion** rpk. One rpk, or revenue passenger kilometer, is flown when a paying passenger is carried one kilometer.

Most cases can be handled by flight attendants, who undergo initial and recurrent training and are able to provide basic emergency medical care, such as

cardio pulmonary resuscitation (CPR). They are trained to use the emergency medical kit and the automated external defibrillator (AED) when there is one on board.

For the instances where the passenger's condition is too serious for the cabin crew **to cope with**, most airlines have access to ground-based medical assistance, whose consultants will offer a diagnosis and possible treatment and will try to talk the crew through the emergency.

As a last resort the infamous PA announcement will be made, in the hope that a medical professional, i.e. a physician, a nurse or a paramedic, will respond. Many airlines carry a physician's kit, whose content exceeds regulatory requirements, to be used in such circumstances.

Cabin environment

Most passengers who board an aircraft are fit and healthy, but even for them, the characteristics of air travel can lead to the occurrence of unexpected medical problems. Stress, anxiety, and jet lag are contributing factors. So is the cabin environment with its reduced atmospheric pressure, equivalent to an altitude between 5,000 and 8,000 feet, and its very dry air.

Low pressure means gas expansion. This law of physics accounts for the ear and sinus pains experienced by some people during flight. It justifies the recommendation of a 24-hour waiting period between scuba diving and flying, to avoid decompression sickness that could be caused by residual nitrogen in a diver's system. It also enhances the effects of alcohol which can trigger the disorderly conduct of some passengers. Known as air rage, often due to an over-consumption of alcohol combined with oxygen deprivation and stress, it can be disruptive. Unruly passengers are sometimes at the origin of a flight diversion.

Sitting in a cramped space for hours with few opportunities to move around is another reason for concern. The occurrence of **deep vein thrombosis** (DVT), or blood clot, is not so common. But the odds of it happening can still be reduced by

drinking enough (non-alcoholic, see air rage above) liquids to diminish blood viscosity, and by carrying out some simple leg exercises.

To divert or not

Most medical incidents are of a minor nature, with fainting and gastrointestinal disorders at the top of the list. Other events include heart conditions, asthma attacks, epileptic fits, allergic reactions, obstetric emergencies, and traumatic injuries caused by objects falling from the overhead luggage bins or during turbulent flight. In these cases the seriousness of the situation is more difficult to assess. Faced with a real medical emergency, the flight crew has to decide of the course of action. Given its economic impact, a diversion must be carefully thought out. A study by Air France, whose aircraft are in permanent contact with Paris SAMU, showed that diversions were a lot more relevant when advised by ground-based assistance than by a volunteer medical professional or by a crew member. As always, the final decision will rest with the pilot-in-command.

Pilots

In general aviation, air sickness is probably the most severe form of medical emergency a pilot will have to handle. Leisure flights are most of the time too short for any severe pathology to have the time to develop, and if the need arises, a diversion airfield is always close at hand. However, cases of incapacitated private pilots leaving the right-seat passenger in a tight situation have prompted the US-based Aircraft Owners and Pilots Association, as early as 1963, to imagine the pinch hitter course. Named after the player who replaces the batter in baseball, this training aims at giving non pilots, most of the time spouses, basic theoretical and practical knowledge necessary to take control and bring an aircraft to a safe landing.

As for commercial pilots, although they undergo regular **stringent** medical examinations, they are not immune to the occasional bug, intestinal or otherwise, and unforeseen medical conditions can arise, just as in the rest of the population. And that's when Eliot's dream comes true. ●

Vocabulary

AILMENT	MALADIE
TO ASSIST ≠ TO ATTEND	AIDER ≠ ASSISTER À
TO BE PRONE TO	AVOIR TENDANCE À
A BILLION	UN MILLIARD
TO COME FORWARD	SE PRÉSENTER
TO COPE WITH	FAIRE FACE À
DEEP VEIN THROMBOSIS	PHLÉBITE
EARBUDS	ÉCOUTEURS (INTRA-AURICULAIRES)
I.E. (LATIN ID EST)	C'EST-À-DIRE
STRINGENT	RIGOUREUX