Aircraft being investigated for the cause of aerotoxic syndrome

Reporter: Sarah Clarke

MAXINE McKEW: It's now several years since the world's airlines were forced to confront the legal implications of the medical condition known as deep vein thrombosis. Hundreds of travellers claimed that the airlines failed to warn them of the condition, which left many passengers ill with blood clots that in some cases proved fatal. Now there are claims of another sleeper health issue in the skies: the problem of toxic fumes from the engine leaking into the aircraft. It's already been well documented in a widely used domestic passenger jet, the British Aerospace 146, but there are complaints that it's spread to other aircraft, causing passengers and crew to become seriously ill. With this in mind, a medical team has embarked on the first worldwide study examining an illness now described as the aerotoxic syndrome. Sarah Clarke reports.

SUSAN MICHAELIS (FORMER PILOT): I was flying on the 146 as a co-pilot and I'd turn the air on and very regularly I'd notice a dirty sock/vomit-type smell, and I would get headaches, tingling in the head, nausea, fatigue.

SARAH CLARKE: It took years of training and dedication for Susan Michaelis to achieve her dream of becoming an airline pilot. But after a decade in the cockpit, her career as a first officer was cut short on medical grounds. Aviation authorities ruled she was no longer fit to fly.

SUSAN MICHAELIS: For a long time, I thought it was just me, you know, with the very hoarse throat and the headaches and the tingling and so on, but then I discovered that there certainly were other crew that were having problems, and in some cases it was both pilots at once.

SARAH CLARKE: For years, pilots and crew flying on the British Aerospace 146, one of the world's most popular short-haul airliners, complained of similar symptoms. Four years ago, a Senate inquiry confirmed what the air crew had long suspected: that toxic oil fumes from the aircraft engines were leaking into the cabin.

DR ANDREW HARPER (OCCUPATIONAL PHYSICIAN): Here's chemicals which are known to be neurotoxic, which are harmful to the nervous system, and that is something which is known, but precisely which ones in the mixture of these chemicals which is actually causing the damage is unclear.
SARAH CLARKE: The problem was caused by faulty oil seals in the aircraft's engines. Air passes through the engines before being pumped into the pressurised cabin, allowing passengers to breathe at high altitude. In some cases, leaking oil seals caused the air to be contaminated by toxic chemicals.

PETER GIBSON (CIVIL AVIATION SAFETY AUTHORITY): With the BA-146, we were able to work with the industry, come up with some solutions that have largely eliminated that problem with that type of aircraft. With the other aircraft types we have in Australia, there just simply aren't the vast number or even a small number of contaminated air reports. We just don't get them.

SARAH CLARKE: While Australia's aviation regulator maintains the problem has now been solved, Susan Michaelis says there's growing anecdotal evidence among air crew that other passenger jets have similar problems.

SUSAN MICHAELIS: It's happening to a number of aircraft, including the 146, the Boeing 757, the McDonnell Douglas MD-80, some of the Airbus fleet, and it seems to be worldwide.

NEWS FILE: Qantas Flight 485 from Melbourne to Perth was halfway through its journey when the flight crew noticed fumes coming from the galley and notified the captain.

SARAH CLARKE: In this incident last year, nine people were treated in hospital after passengers and crew reported smelling fumes in the cabin of an Airbus. But for every publicised incident, Susan Michaelis claims many more events are not reported because crew members fear speaking out.

SUSAN MICHAELIS: I have heard of cases where pilots who've reported this problem have been demoted and stood down. People are afraid to report. They've seen a problem that's gone on for years and years and years, and they've been branded as troublemakers, so it's almost a no-go zone.

SARAH CLARKE: Pilots may be avoiding their employers, but they are reporting incidents to their unions, both here and overseas. The bodies representing commercial pilots in Australia and Britain have now joined forces to document symptoms their members believe are being caused by toxic fumes, and they believe the rest of the aviation industry is beginning to take the issue more seriously.

JIM McAUSLAN (BRITISH PILOTS ASSOCIATION): We're now seeing, in the US, Boeing taking a very keen interest; we know that the FAA in the US, their regulatory body, is taking an interest; and I think that the airline industry is now waking up to the fact that this is not something that can be ignored.

SARAH CLARKE: Dr Andrew Harper is leading a medical team undertaking a global study to examine the long-term health implications of toxic fumes in aircraft cabins.

DR ANDREW HARPER: It does seem to be widespread. With the information that's coming in to me now, there are people from Australia and Britain and the States, and it's not, therefore, just an isolated problem.

SARAH CLARKE: Over the past three years, Dr Harper says he's treated a succession of pilots and other air crew complaining of neurological symptoms: headaches, nausea and a
lack of concentration.

DR ANDREW HARPER: It is a problem which is potentially affecting a lot of people in the work force, but also passengers.

SARAH CLARKE: One of those passengers is Robin Montmayeur. Her case study has been recorded as part of an awareness campaign produced by the British and Australian Pilots Associations. The DVD will be mailed out to their 10,000 members, urging them to speak out about any fume exposure.

ROBIN MONTMAYEUR (PASSENGER): Sleep disorders, short-term memory problems, cognitive dysfunctions, all of which prohibit me from doing the jobs that I did before.

SARAH CLARKE: The flight in question was from Washington to San Diego. Four years since that flight, Robin Montmayeur claims she's still battling to get a diagnosis from doctors.

ROBIN MONTMAYEUR: They don't know what to do with us. I've been labelled a manic depressive, a woman with panic disorder; I've been put on anti-depressives; I've been told I hyperventilate - I've been told a whole host of things that are just so far from the truth.

SARAH CLARKE: Both Qantas and Virgin declined to be interviewed for this story. But in a statement, while acknowledging that air quality had been an issue in the BA-146, Qantas said it had no evidence to suggest it was a problem in any of its other aircraft.

PETER GIBSON: I think it's a problem that is wider than just the individual airlines. I think it would be unfair to point the finger at the individual airlines themselves. This is something on the international stage, that there need to be new cabin air quality standards. The standards that we currently have are fairly basic, and they don't take into account all the factors that come into play in ensuring that the air in a cabin of an aircraft is of a proper quality.

SARAH CLARKE: As for Susan Michaelis, she says she's still suffering from the symptoms which saw her grounded seven years ago. For the sake of other pilots and crew, she believes a global study into the long-term health effects of toxic cabin fumes is long overdue.

SUSAN MICHAELIS: There's copious quantities of data showing that all is not well. It's almost like asbestos, where there's complete denial for years and years, and more needs to be done and the hard evidence needs to be looked at.

MAXINE McKEW: We should point out that we approached aircraft manufacturers Boeing and Airbus for comment, but none was forthcoming. That report from Sarah Clarke.