

Smoking and Aircrew

Note: This paper supersedes 13POS06 – Smoking and Aircrew

BACKGROUND

Cigarette smoking is the single most important preventable environmental factor contributing to premature death in the world. The high morbidity and mortality rates are due to the effects of cigarette smoke on several diseases, but primarily on lung cancer, ischaemic heart disease, stroke, and peripheral vascular disease.

PHYSIOLOGICAL AND PSYCHOLOGICAL EFFECTS OF SMOKING

Tobacco smoke contains a rich assortment of toxic components. Carbon monoxide and nicotine have received considerable scientific attention, particularly as to their acute and chronic physiological effects. A great deal of literature is available describing the effects (and the effects of withdrawal) of these substances on cardiovascular, psychological, and psychomotor functions in active and passive smokers.

Aviation environmental factors such as altitude, hypoxia, fatigue, and performance (impairment of memory, reaction time, vision, and vigilance) have been studied as they relate to carbon monoxide exposure. Particulates found in cigarette smoke also add to the irritative effect of low humidity and ozone on eye and nasal mucous membranes. These occur despite the rapid ventilation rates of the modern cockpit.

ELECTRONIC CIGARETTES

In recent years a wide array of products that simulate the act of smoking have been introduced. There are currently three broad categories of these products:

- Heated tobacco products (HTPs), which produce aerosols containing nicotine and toxic chemicals upon heating of the tobacco or activation of a device containing the tobacco.
- Electronic nicotine delivery systems (ENDS), which heat a liquid to create an aerosol that is inhaled by the user. The liquid contains nicotine (but not tobacco) and other chemicals that may be toxic to people's health.
- Electronic non-nicotine delivery systems (ENNDS), which are similar to ENDS but the heated solution delivered as an aerosol through the device does not generally contain nicotine.

While some of these products have lower emissions than conventional cigarettes, they are not risk free, and the long-term impact on health and mortality is as-yet unknown. E-cigarettes have caused acute lung injuries, and the U.S. Centers for Disease Control and Prevention (CDC) has named this as e-cigarette, or vaping, product use associated lung injury (EVALI). The injury is believed to be associated with e-vitamin acetate.

There is insufficient evidence to support these products as smoking-cessation tools. It is also important to note that electronic cigarettes and/or their liquids may be illegal in some countries.

Considering the above, IFALPA recommends a completely smoke free environment on all aircraft including the flight deck area. In addition, it is highly recommended that pilots not use cigarettes or e-cigarettes at all.

NOTES

WHO Report on the Global Tobacco Epidemic 2019, https://www.who.int/tobacco/global_report/en//