

## CARDIOVASCULAR RISK FACTORS IN FLIGHT PERSONNEL: AN ITALIAN SURVEY

*FACTEURS DE RISQUE CARDIOVASCULAIRE CHEZ LE PERSONNEL DE VOL: UNE ENQUETE ITALIENNE*

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**Introduction:** The control of cardiovascular risk is part of the aeromedical decision making process supporting flight safety. Therefore, the cardiovascular risk estimated over the next 10 years (Risk Score, RS), via the algorithm developed by the Istituto Superiore di Sanità, was introduced in the medical check of flight personnel in 2014.

**Methods:** The study was conducted in three parts on 3975 airmen for which the RS was computed between October 2014 and December 2015. #1: RS and each components of the algorithm, that includes also age, blood lipids, blood glucose, and blood pressure were investigated in all subjects. #2: 399 subjects who underwent at least two visits were reviewed to assess whether any change occurred in RS. #3: 2930 civilian airmen were compared with 1044 military.

**Results:** The mean RS was 2.9 (CI95% 2.4 to 3.4), and it was 11.1 (CI95% 2.7 to 19.5) in the highest class of age, not different from previously published data. The proportion of subjects with 10-year risk greater than 10% was, respectively, 7.5% in the age 55-59 (CI95% 4.6 to 10.4%), 13.3% in the age 60-64 (CI95% 6.3 to 20.3%), and 48.0% in subjects over 65 years (CI95% 34.2 to 61.8%). Smoking habit, blood lipids and glucose were not different from the general population of the same age. Subjects visited twice showed a significant reduction in total cholesterol and blood glucose at the second visit. Finally, the mean RS and the proportion of subjects with RS greater than 10% was significantly lower in military personnel than in civilians.

**Conclusion:** The cardiovascular risk score can be a helpful tool to estimate the future risk of acute incapacitation in flight personnel. People of older age have greater cardiovascular risk, thus they could receive more benefit from special advice leading to appropriate changes in their lifestyle.