



**European Conference on Aerospace Medicine
2010 Athens
10th – 13th November 2010**

ABSTRACT

Title: DIABETES MELLITUS: AN AVIATION MEDICINE POINT OF VIEW	
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<p>Introduction: Diabetes epidemiology, progression, physiopathology, clinical features, complications are summarized. In order to fitness for flying assessment, diagnostic criteria, classification, medical examination requirement, different ways of treatment are described as well.</p> <p>Methods: Diabetes Type 1 is a genetically associated disease. Type 2 is related to obesity and familial tendency. Glucose intolerance evolves to diabetes, to complications, disability, and possibly, death. Insulin resistance and β-cells dysfunction result in Type 2 diabetes. Hyperglycemia leads to vasculature damage and platelets disorder both related to macro- and micro-angiopathy. We can consider Type 2 diabetes as a worldwide pandemic. On 2025 over 300,00 millions of involved people are expected. At present time diabetes is the sixth leading cause of death. However, nevertheless diabetes were is a serious, common and costly condition, it's fortunately controllable.</p> <p>Results: Diagnostic criteria according to WHO recommendation are presented. A description is given about Type 1 assessment, Type 2 assessment, complete requirements for periodic medical examination and careful review in Type 2 applicants. Aeromedical aspects of Impaired Glucose Tolerance and Glycosuria with low renal threshold are presented as well.</p> <p>Conclusion: An overview about Type 2 treatment and certification is given. Regulatory topics related to use of drugs are presented by identifying the drug class therapy and the subsequent fitness for flight assessment: Increase Insulin Sensitivity (Biguanides, Thiazolidinediones, Peroxisome proliferators-activated receptor) – Increase Circulating Insulin (Sulphonylureas, Glitinides, Glucagon-like peptide-1, Gastric inhibitory peptide, Dipeptidase IV inhibitors) – Alpha-glucosidase inhibitors.</p>	
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