COMPLICATIONS AND COMORBIDITIES IN PEOPLE LIVING WITH DIABETES (PWD)

Diabetes can affect every organ system in the human body. The extent of potential organ damage depends largely on its duration and successful management.

BRAIN DISEASES

CONDITIONS



MENTAL HEALTH

 PwD are 2-3X more likely to experience DEPRESSION than people without diabetes

EYES

HEART

DISEASES

KIDNEY

MENTAL HEALTH

EYE DISEASES

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61m

people live

with DIABETES

in Europe

DIABETES

AND

PREGNANCY

PERIPHERAL

DISEASES

- 1/3 of PwD develop DIABETIC RETINOPATHY (DR)
- DR can develop into DIABETIC MACULAR EDEMA, leading to vision impairment and blindness

BRAIN

 PwD are 1.5-2X more likely to have a STROKE than people without diabetes

 T2D has been associated with neuropsychological dysfunctions, dementia, Alzheimer's disease and Parkinson's disease

HEART

- 1/3 of PwD develop CARDIOVASCULAR DISEASES
 - PwD are at increased risk of having a HEART ATTACK and >2X more likely to develop HEART FAILURE than people without diabetes
 - HYPERTENSION is twice as frequent in PwD than in people without diabetes

OTHER CONDITIONS

- 1/5 of people living with cancer have diabetes
- PwD are at heightened risk of developing serious and more deadly forms of infections, including COVID-19
- Diabetes is also associated with hearing loss, lung diseases, non-alcoholic fatty liver disease, sexual dysfunctions, infections and obesity

KIDNEYS

- More than 1/3 of PwD develop KIDNEY DISEASE
- Diabetes/+ hypertension cause 80% of END-STAGE RENAL DISEASE

PERIPHERAL NERVES

- About 1/3 of PwD develop a foot ulcer in their lifetime, and about half of those ulcers will become infected
- Up to 1/2 of PwD develop PERIPHERAL NEUROPATHY
- Lower-extremity amputations are 10 times more common in PwD than in people without diabetes

DIABETES AND PREGNANCY

- GESTATIONAL DIABETES (GDM) is associated with multiple adverse pregnancy outcomes
- GDM increases the risk for the mother and the child to develop T2D in later life

SOURCES

Mental health:

1. The association between Diabetes mellitus and Depression

Brain:

- 2. <u>Prevalence of diabetes and its effects on stroke outcomes: A meta-analysis and literature review</u>
- 3. The link between type 2 diabetes and dementia: from biomarkers to treatment
- 4. <u>Regional Brain Gray Matter Changes in Patients with Type 2 Diabetes Mellitus</u>
- 5. The Impact of Type 2 Diabetes in Parkinson's Disease

Eyes:

- 6. <u>Screening for diabetic retinopathy: new perspectives and challenges</u>
- 7. <u>Diabetic retinopathy and diabetic macular oedema pathways and management: UK Consensus Working Group</u>
- 8. Diabetic macular edema

Heart:

- 9. Prevalence of cardiovascular disease in type 2 diabetes: a systematic literature review of scientific evidence from across the world in 2007–2017
- 10. <u>Heart Failure in Type 2 Diabetes Mellitus</u>
- 11. Heart Failure in Patients with Diabetes Mellitus
- 12. <u>Diabetes, Hypertension, and Cardiovascular Disease: Clinical Insights and Vascular Mechanisms</u>

Kidneys:

- 13. Diabetic Kidney Disease Challenges, Progress, and Possibilities
- 14. The Global Epidemiology of Diabetes and Kidney Disease
- 15. IDF Europe: Factsheet on Diabetes and Chronic Kidney Disease

Peripheral nerves:

- 16. <u>Epidemiology of Peripheral Neuropathy and Lower Extremity Disease in</u> Diabetes
- Global Disability Burdens of Diabetes-Related Lower-Extremity Complications in 1990 and 2016
- 18. Diabetes, Lower-extremity Amputation, and Death

Diabetes and pregnancy:

- 19. <u>Gestational Diabetes Mellitus in Europe: A Systematic Review and Meta Analysis of Prevalence Studies</u>
- 20. <u>Gestational Diabetes Mellitus</u>

Other conditions:

- 21. Diabetes Mellitus in People with Cancer
- 22. Diabetes UK: Diabetes and Cancer
- 23. <u>Latest insights into the risk of cancer in diabetes</u>
- 24. Diabetes and Cancer
- 25. <u>Diabetes in COVID-19: Prevalence, pathophysiology, prognosis and practical considerations</u>
- 26. <u>Diabetes mellitus and hearing loss: A review</u>
- 27. Increased risk of respiratory diseases in adults with Type 1 and Type 2 diabetes
- 28. <u>Type 2 diabetes is associated with an increased prevalence of respiratory symptoms as compared to the general population</u>
- 29. Non-alcoholic fatty liver disease and diabetes
- 30. Diabetes and sexual dysfunction: current perspectives
- 31. The association between diabetes mellitus and incident infections: a systematic review and meta-analysis of observational studies
- 32. Mechanism linking diabetes mellitus and obesity

IDF Europe, 2023: https://idf.org/europe/life-with-diabetes/

