

# Diabetes and Endocrinology

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## Low prevalence of diabetic retinopathy and visual impairment in a Norwegian diabetic coast population with a high dietary intake of fish oils

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**Purpose:** To present retinal and visual findings in a Norwegian west coast diabetic population and to elucidate the effect of dietary intake of marine polyunsaturated fatty acids (PUFAs) on the development of diabetic retinopathy (DR).

**Methods:** In an eye practice in an archipelago of 314 km<sup>2</sup>, serving a population of about 40 000, we recorded the prevalence of visual impairment and DR in a referred diabetic population. 510 consecutive patients were included, 238 females and 272 males. 50 patients had type I and 460 had type II diabetes mellitus (DM). Self-reported medication, diet supplements, HbA1c and fish consumption were registered.

**Results:** In the type I group, the median age was 44.5 and median DM duration 11.5 years [1–44]. 48% had photographic evidence of DR, 8 patients (16%) had proliferative retinopathy (PDR), and 6 patients (12%) had diabetic macular oedema (DME). All had best-corrected visual acuity (BCVA) of 0.5 (log MAR 0.3) or better in the best eye. In the type II group, the median DM duration was 8 years [1–53], and median age was 66. 98% had best eye BCVA at or better than 0.5 (log MAR 0.3) in the best eye.

**Conclusion:** None of the 510 patients had BCVA worse than 0.3

(log MAR 0.48) due to diabetic retinopathy. Compared to similar studies, we found a very low visual impairment rate. A possible protective effect of PUFA on the prevalence and progression of diabetic microangiopathy including retinopathy is discussed.

### Recent Publications

1. Diabetic retinopathy and visual impairment in a Norwegian diabetic coast population with a high dietary intake of fish oils. An observational study DOI:10.1111/aos.14977 September 2021
2. Prevalence of diabetic retinopathy in Norway: Report from a screening study DOI:10.1111/j.1755-3768.2011.02160.x September 2011
3. Propionibacterium acnes in Eyes of Cataract Patients DOI:10.1016/S0955-3681(13)80371-1 June 1992

### Speaker Biography

He is a pensioned doctor. For 25 years he attended hospitals in Denmark, and for 10 years as a chief physician. Last 18 years he worked as an Ophthalmologica practitioner in the Sotra Eye Clinic outside Bergen, Norway, where the study was performed.

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