

# Risk Factors for Central Retinal Vein Occlusion: The Eye Disease Case-Control Study Group - 1996



## Objective

To describe risk factors associated with central retinal vein occlusion (CRVO)

## Methods

**Design:** Prospective, clinic-based case-control study

**Study Participants:**

- CRVO patients aged 21-80 from 5 large clinical eye care centers
- CRVO patients: N=258
  - Ischemic CRVO: N=84
  - Nonischemic CRVO: N=148
  - Undefined: N=26
- Matched control patients: N=1142
- Exclusion criteria: patients with severe myopia, vasoproliferative retinopathy, and intermediate or posterior intraocular inflammatory disease

## Results

**Point 1:** Individuals with systemic hypertension (HTN), history of treatment for diabetes mellitus (DM), and decreased physical activity were at increased risk of both ischemic and nonischemic CRVO.

- Systemic HTN: OR 2.1; P <.001
- Diabetes Mellitus treatment: OR 1.8; P =.02
- Increased physical activity: OR 0.5; P =.01

**Point 2:** Ischemic CRVO risk was increased in individuals with cardiovascular disease, history of DM, and higher blood glucose levels.

- Cardiovascular disease: OR 2.1; P <.01
- History of DM: OR 2.7; P <.01
- HgB A1C > 6.3: OR 2.7; P <.01

**Point 3:** Women were at a decreased risk of CRVO when using postmenopausal estrogens and increased risk when found with a higher erythrocyte sedimentation rate (ESR).

- Current Estrogen use: OR 0.3; p<.01
- ESR > 32: OR 4.4; p<.001

**TLDR: Individuals with cardiovascular risk factors (systemic hypertension, diabetes mellitus, and decreased physical activity) are at increased risk of CRVO**