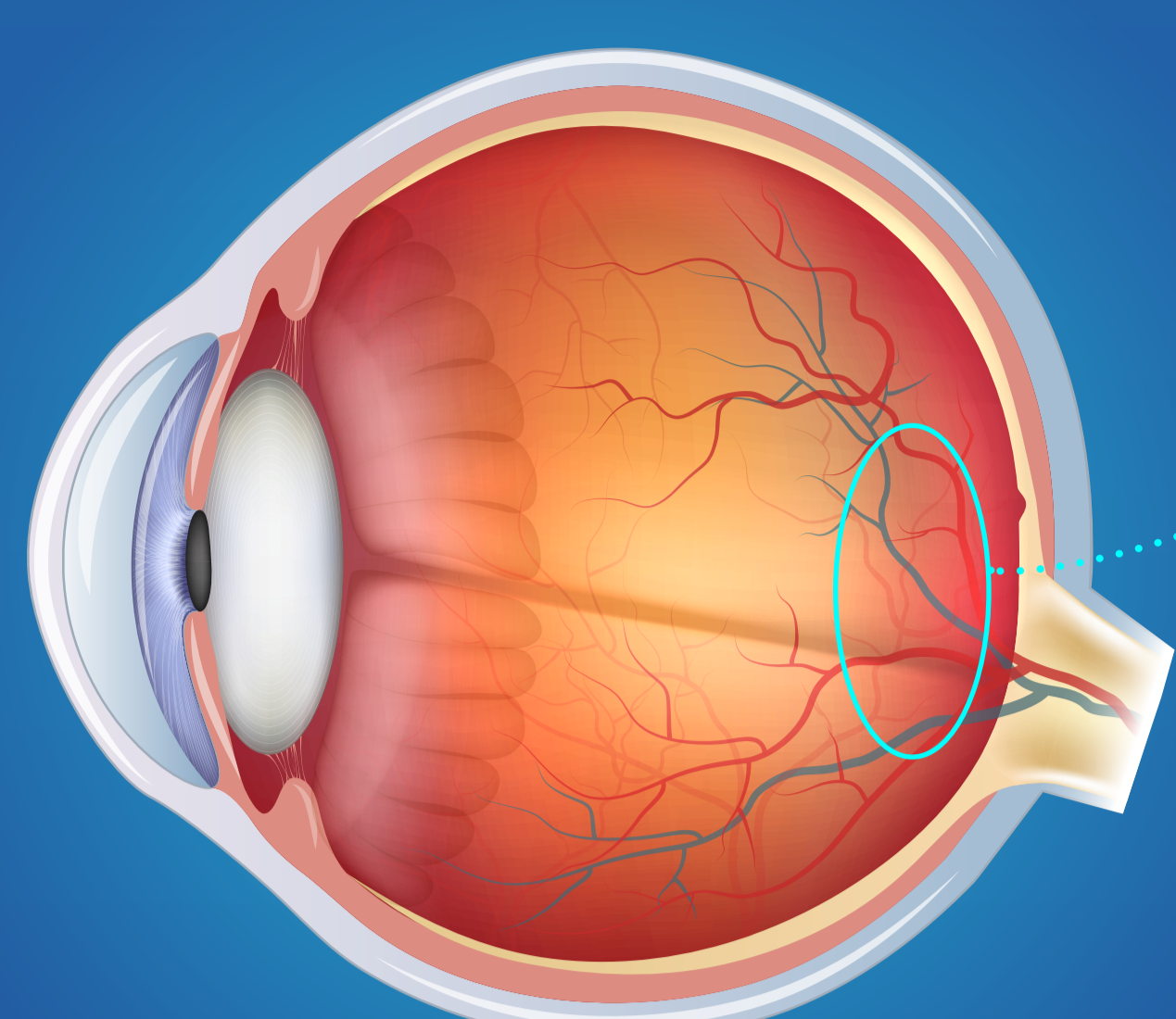


DIABETIC RETINOPATHY (DR) IS A COMPLICATION OF DIABETES MELLITUS AFFECTING RETINAL BLOOD VESSELS¹

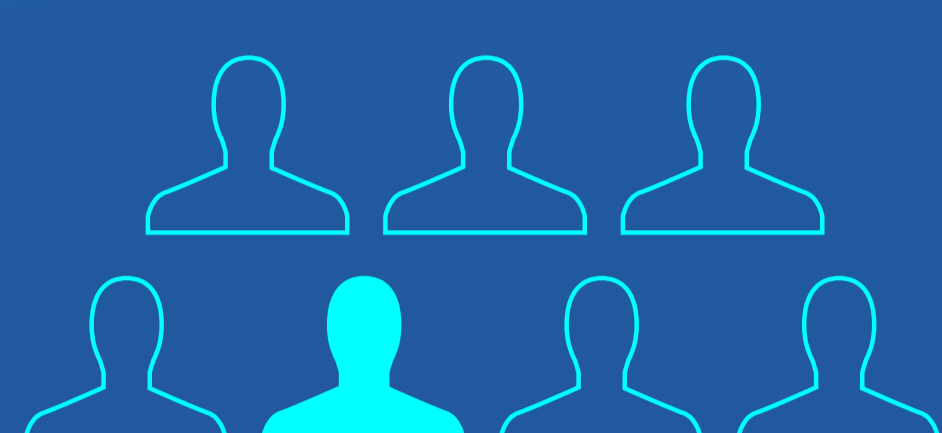
LEARN MORE ABOUT DIABETIC RETINOPATHY IN OUR DEDICATED INFOGRAPHIC

DIABETIC MACULOPATHIES ARE A COMPLICATION OF DIABETIC RETINOPATHY, SPECIFICALLY AFFECTING THE MACULA

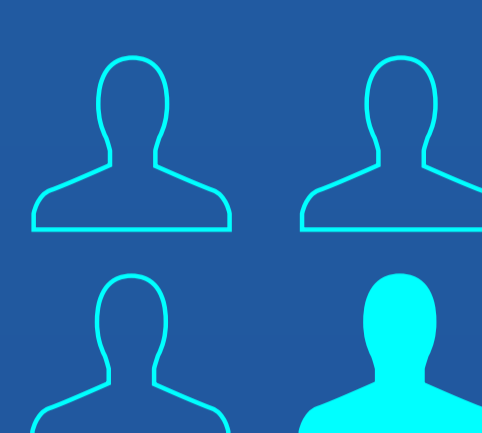


THE MACULA IS THE CENTRAL PORTION OF THE RETINA WHICH IS RESPONSIBLE FOR HIGH VISUAL ACUITY THAT ALLOWS FOR COLOR VISION, READING AND FACIAL RECOGNITION

DIABETIC MACULOPATHY AFFECTS APPROXIMATELY



1 IN 7 PEOPLE WITH TYPE 1 DIABETES²

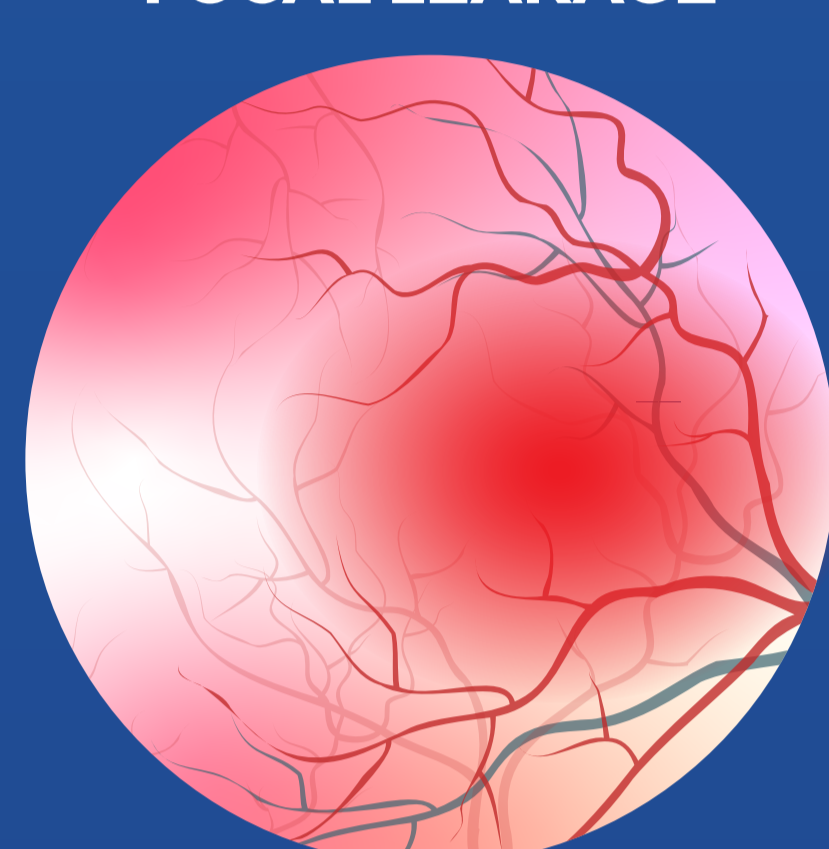


1 IN 4 PEOPLE WITH TYPE 2 DIABETES²

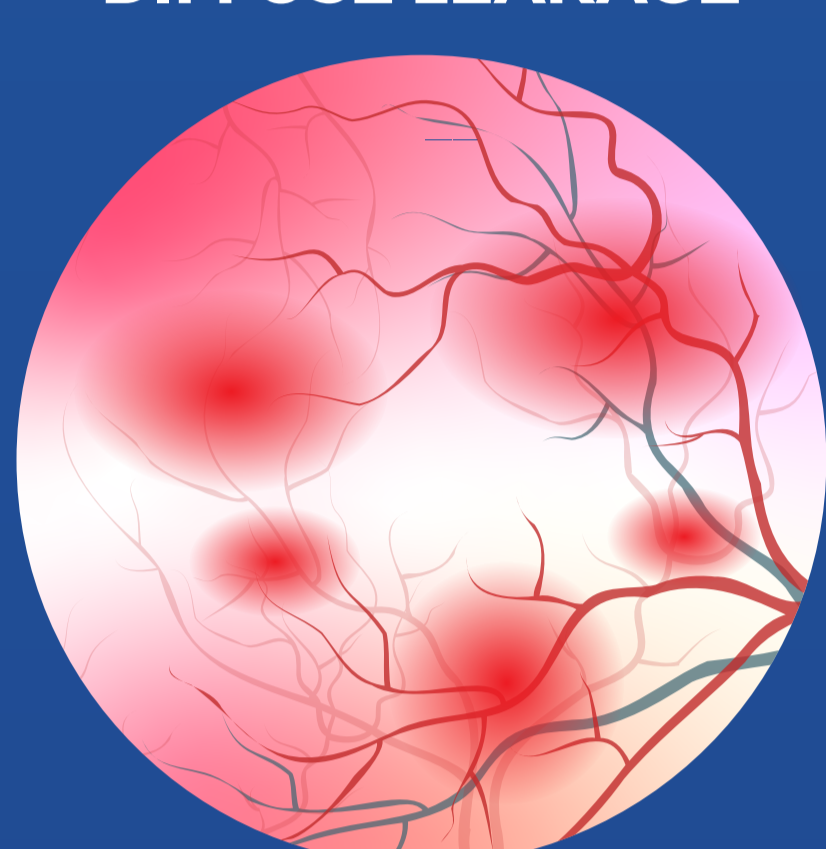
THERE ARE TWO TYPES OF DIABETIC MACULOPATHY:

DIABETIC MACULAR EDEMA (DME)

FOCAL LEAKAGE



DIFFUSE LEAKAGE



UPREGULATION OF VASCULAR ENDOTHELIAL GROWTH FACTOR (VEGF), ASSOCIATED WITH DIABETIC RETINOPATHY, LEADS TO THE GROWTH OF ABNORMAL, LEAKY BLOOD VESSELS IN THE RETINA.³

DME OCCURS WHEN BLOOD VESSEL LEAKAGE LEADS TO SWELLING OF THE MACULA⁴

DME MAY BE CLASSIFIED AS FOCAL OR DIFFUSE⁵

DIABETIC MACULAR ISCHEMIA (DMI, SEE BELOW) MAY CONTRIBUTE TO THE DEVELOPMENT OF DME OR DME MAY DEVELOP INDEPENDENTLY OF DMI⁶



SYMPTOMS⁷

ADVANCED DME IS ASSOCIATED WITH **REDUCED VISUAL ACUITY** AND, IN SOME CASES, **BLINDNESS**



RISK FACTORS^{6, 8}

RISK FACTORS FOR PROGRESSION OF DIABETIC RETINOPATHY TO DME INCLUDE:

- HIGH BLOOD SUGAR
- HIGH BLOOD PRESSURE
- HIGH CHOLESTEROL
- KIDNEY DISEASE
- ANEMIA
- SLEEP APNEA
- GLITAZONE USAGE
- PREGNANCY
- PRESENCE OF DIABETIC MACULAR ISCHEMIA



DIAGNOSIS⁹

DIAGNOSIS TECHNIQUES INCLUDE:

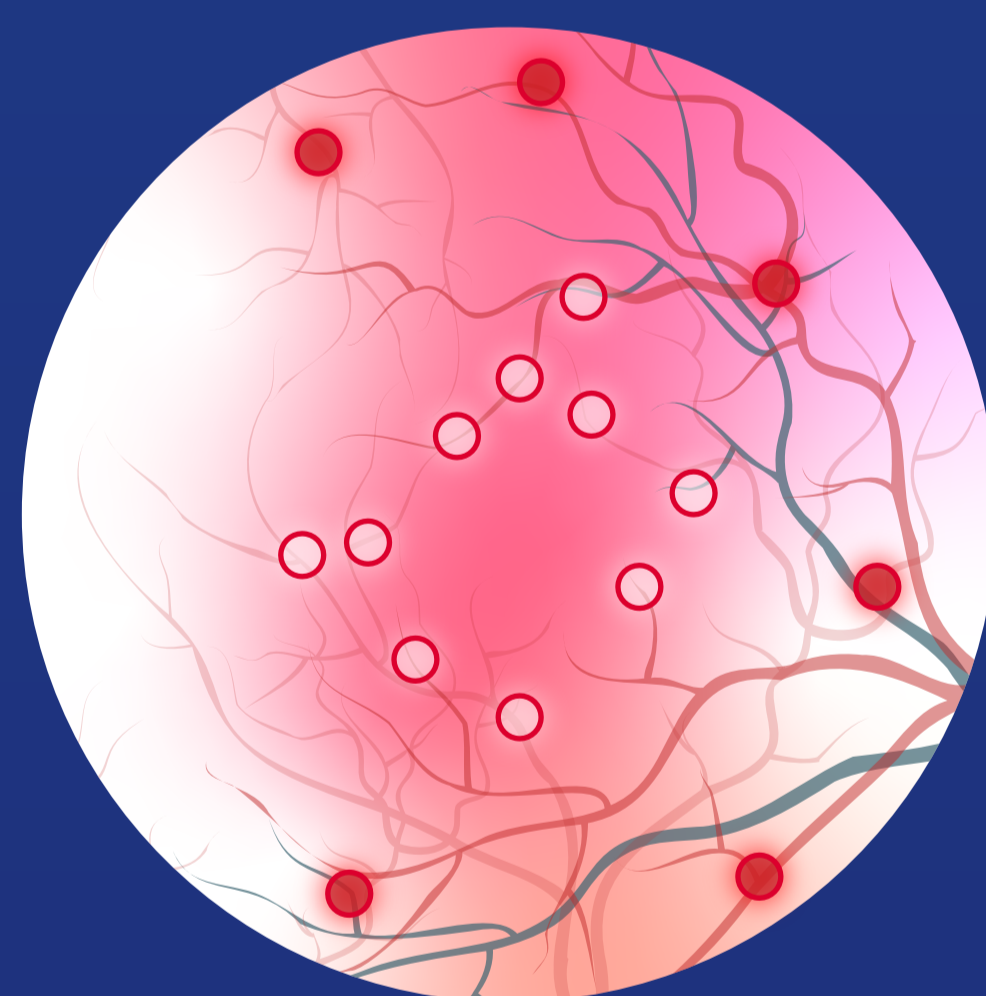
- **FLUORESCEIN ANGIOGRAPHY (FA)** - 2D IMAGING OF THE RETINA IN THE PRESENCE OF A DYE THAT HIGHLIGHTS BLOOD VESSELS
- **OPTICAL COHERENCE TOMOGRAPHY (OCT)** – NON-INVASIVE 3D IMAGING OF THE RETINA



TREATMENT⁹

- **LASER PHOTOCOAGULATION** TO SEAL LEAKY BLOOD VESSELS
- **INTRAVITREAL INJECTIONS** WITH ANTI-VEGF AGENTS OR CORTICOSTEROIDS
- **PARS PLANA VITRECTOMY** SURGERY AT THE BACK OF THE EYE

DIABETIC MACULAR ISCHEMIA (DMI)



DMI OCCURS WHEN THE **BLOOD VESSELS IN THE MACULA ARE NOT ABLE TO SUPPORT BLOOD FLOW**, STARVING THE MACULA OF OXYGEN AND NUTRIENTS⁶

THIS MAY LEAD TO AN INCREASED PRODUCTION OF PRO-ANGIOGENIC CYTOKINES, OF WHICH THE BEST CHARACTERIZED IS VEGF, AND MAY PROVOKE THE **GROWTH OF NEW, ABNORMAL BLOOD VESSELS**³



SYMPTOMS^{10, 11, 12}

DMI IS ASSOCIATED WITH:

- REDUCED VISUAL ACUITY
- A PATCHY REDUCTION IN CENTRAL VISION
- REDUCED CONTRAST SENSITIVITY
- LOSS OF COLOR VISION



RISK FACTORS¹²

RISK FACTORS FOR PROGRESSION OF DIABETIC RETINOPATHY TO DMI INCLUDE:

- HIGH BLOOD SUGAR
- HIGH BLOOD PRESSURE
- ADVANCED STAGES OF DIABETIC RETINOPATHY
- PRESENCE OF DIABETIC MACULAR EDEMA



DIAGNOSIS⁶

IN DMI, COMPROMISED BLOOD FLOW TO THE CENTER OF THE MACULA RESULTS IN THE **ENLARGEMENT OF THE FOVEAL AVASCULAR ZONE (FAZ)**. THIS CAN BE VISUALIZED USING THE FOLLOWING TECHNIQUES:

- **FLUORESCEIN ANGIOGRAPHY (FA)** - 2D IMAGING OF THE RETINA IN THE PRESENCE OF A DYE THAT HIGHLIGHTS BLOOD VESSELS
- **OPTICAL COHERENCE TOMOGRAPHY ANGIOGRAPHY (OCTA)** – NON-INVASIVE 3D IMAGING OF THE RETINAL BLOOD VESSELS



TREATMENT¹²

THERE ARE CURRENTLY **NO TREATMENTS** FOR DMI

- TREATMENTS FOR DIABETIC RETINOPATHY AND DIABETIC MACULAR EDEMA ARE INEFFECTIVE AT TREATING DMI
- AS A RESULT, DMI OFTEN GOES **UNINVESTIGATED** AND **UNDIAGNOSED**

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