

Diabetes, hypertensie en de gevolgen voor het oog.

Martine van Angelen, PA i.o.

19-09-2017





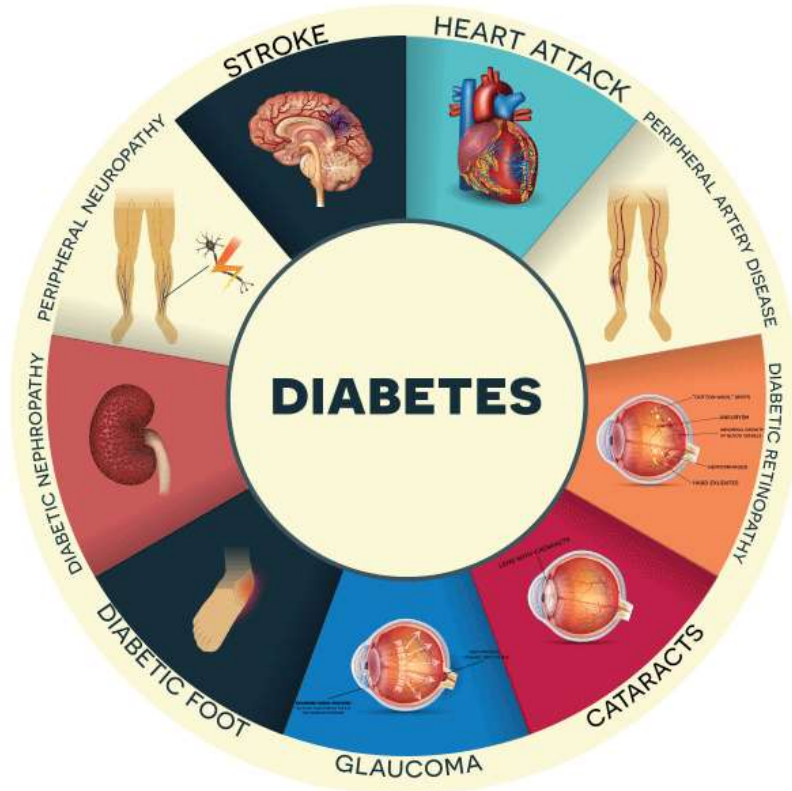
Diabetes Mellitus: een kort overzicht

- ~ 422 miljoen mensen wereldwijd
- > 1.1 miljoen nederlanders in 2015
- 10% type I
- 90% type II
- Zwangerschapsdiabetes





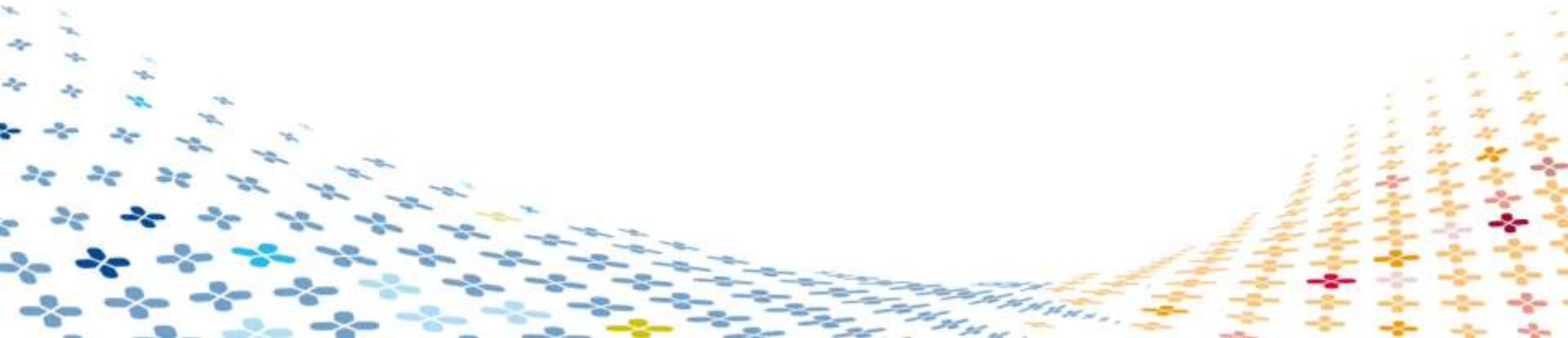
Complicaties bij DM





Diabetische retinopathie (DRP)

- Belangrijkste oorzaak van blindheid onder de werkende bevolking
- Relatie tussen DRP en duur van DM
- Vroege opsporing kan blindheid reduceren





DM type I → DRP

- Na 5 jaar 25%
 - Na 10 jaar 60%
 - Na 15 jaar 80%
 - Na 20 jaar 95%
-
- 16% van alle type I patiënten heeft dreigende slechtziendheid.



DM type II → DRP

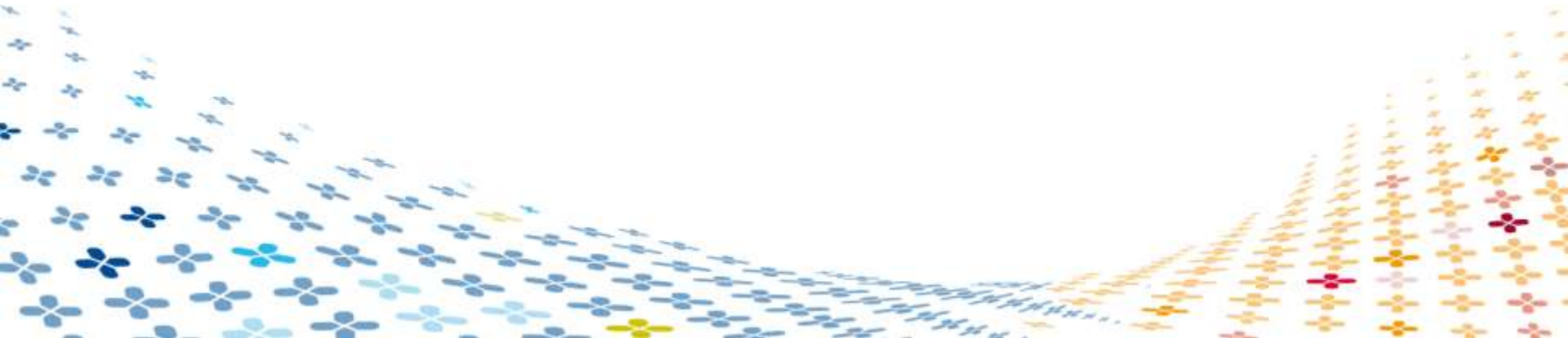
- Bij diagnose 20-38% DRP
- 25% krijgt DRP binnen 3 jaar na diagnose
- 85% heeft na 20 jaar DRP
- 6% van alle type II patiënten heeft dreigende slechtziendheid.





Risicofactoren voor DRP waar je geen invloed op hebt:

- Type en duur van de diabetes
- Zwangerschap
- Puberteit
- Aanwezigheid van DRP bij presentatie





Risicofactoren voor DRP waar je wel invloed op hebt:

- Controle van de suikerspiegel; HbA1c-waarde
- Hypertensie
- Lichaamsgewicht
- Overgang van tabletten naar insuline
- Overgang van insuline-injecties naar insulinepomp





Het oogonderzoek 1:

- Fundusfoto's:
 - 7 foto's per oog
 - zonder druppels
 - diagnose wel/geen DRP
 - controle afspraak





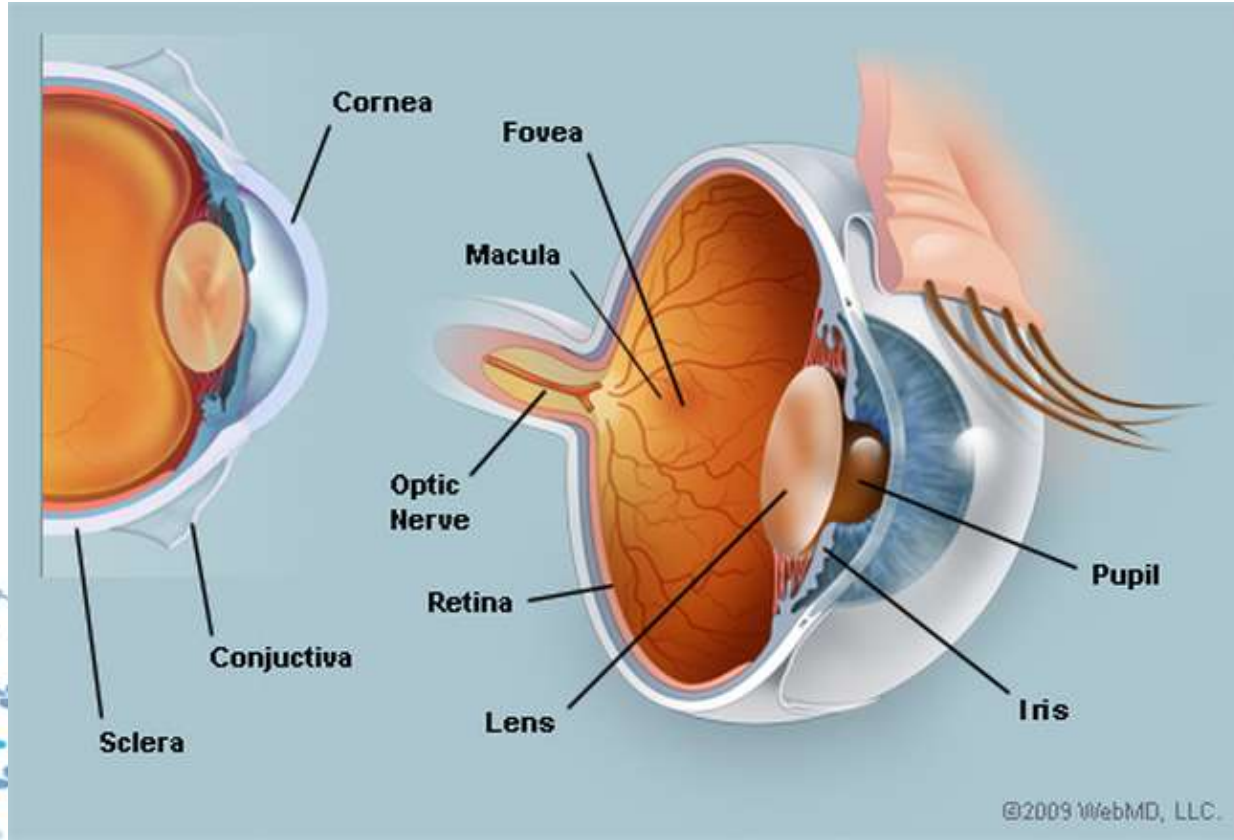
Het oogonderzoek 2:

- Diabetes spreekuur
 - uitgebreid onderzoek
 - gezichtsvermogen
 - spiegelen met pupilverwijdende druppels
 - oogarts/ PA



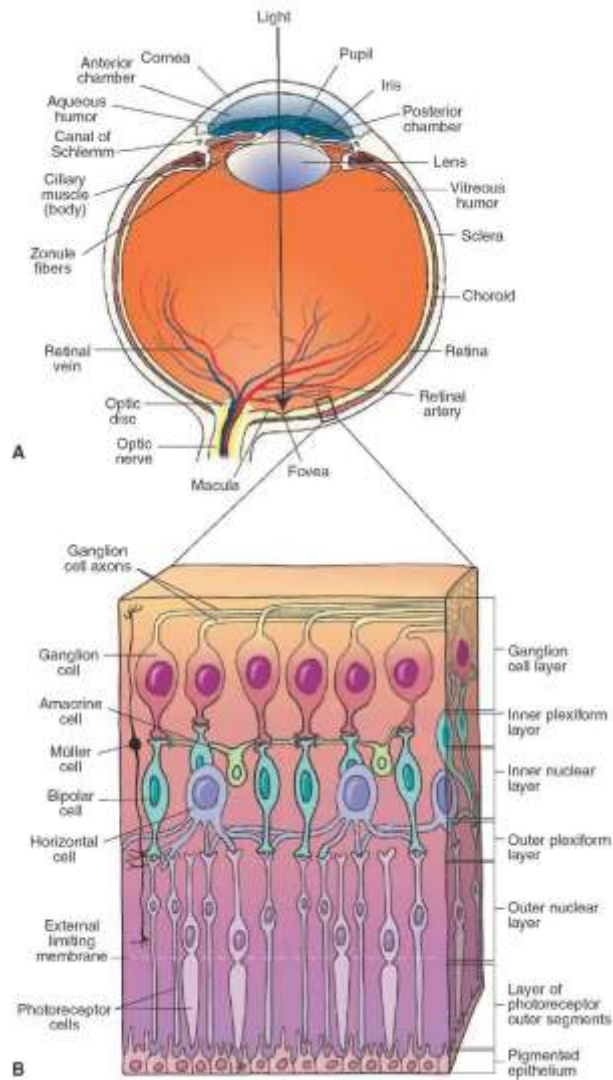


Structuren van het oog



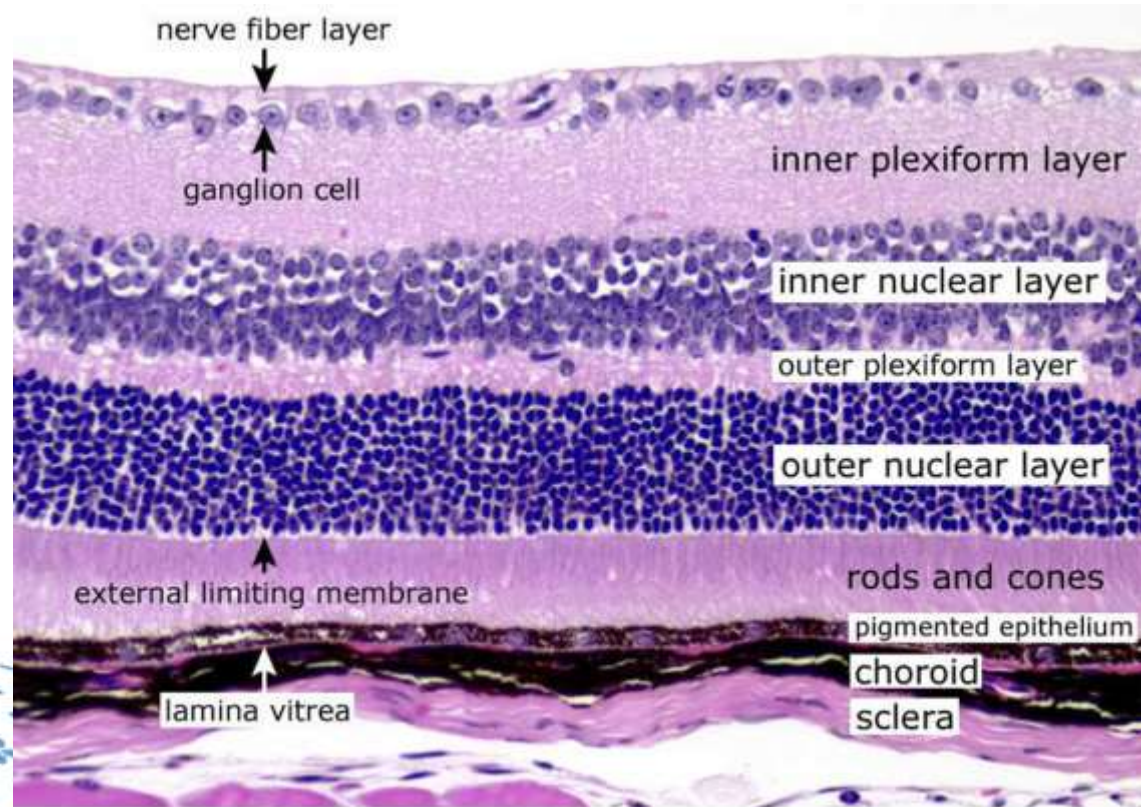


Het netvlies:



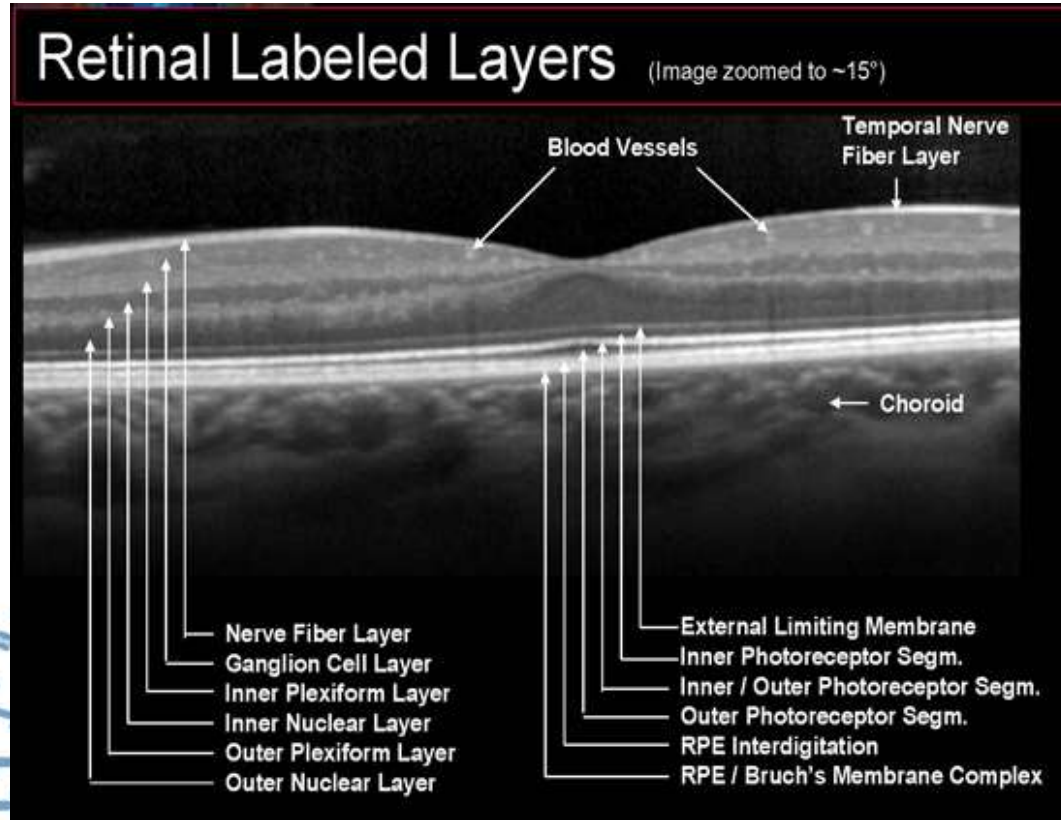


De structuren van het netvlies:





De structuren van het netvlies:





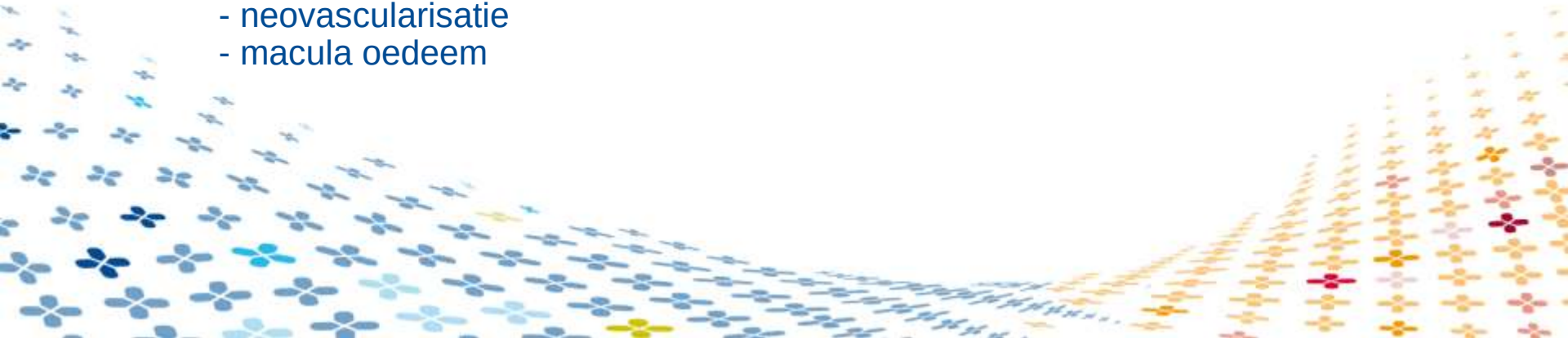
Diabetische retinopathie

- Lekkage van vocht, vetten of bloed





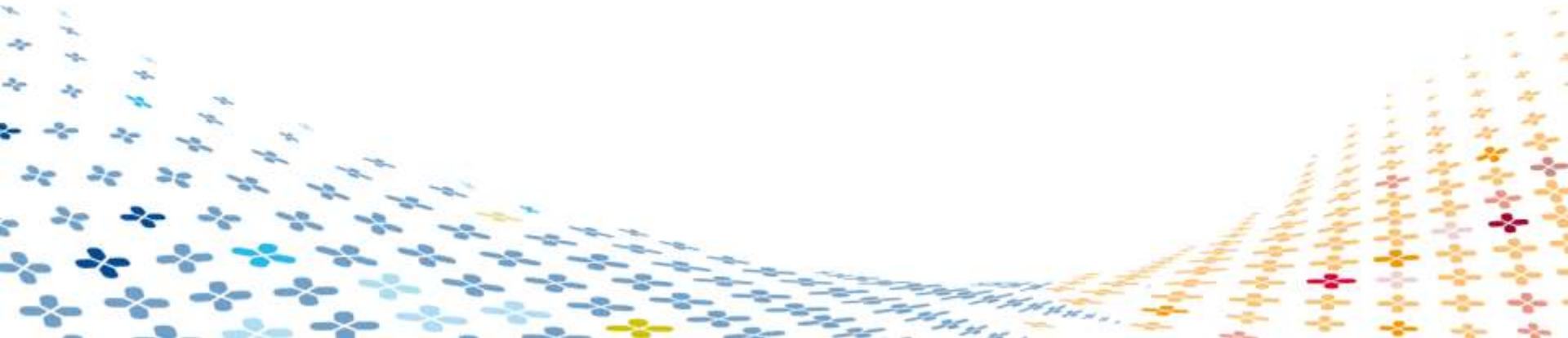
- Geen diabetische retinopathie
- Non-proliferatieve diabetische retinopathie
 - microaneurysmata
 - dot en blot bloedinkjes
 - exsudaten
 - cottonwoolspots
- Proliferatieve diabetische retinopathie
 - neovascularisatie
 - macula oedeem





Het stellen van de diagnose:

- Fundus controle
- Optical Coherence Tomography (OCT)
- Fluorescentie angiogram (FAG)



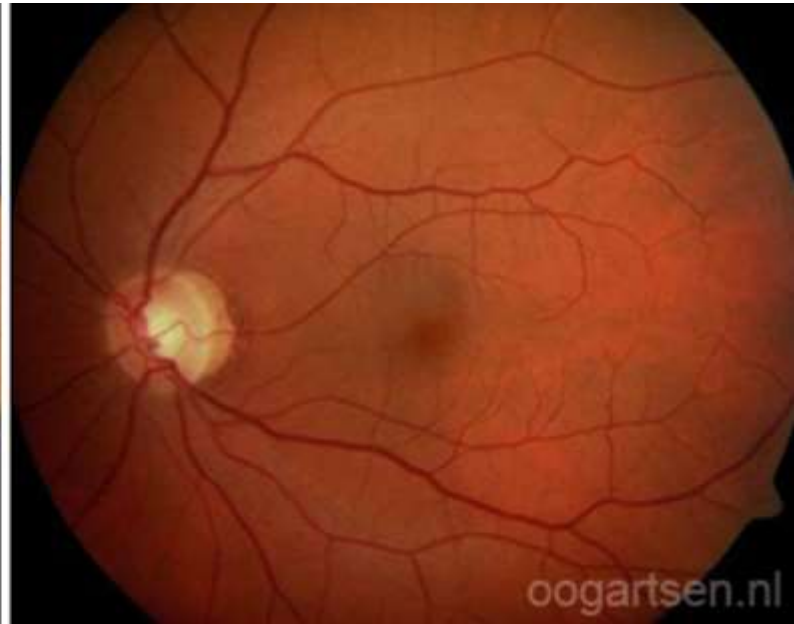
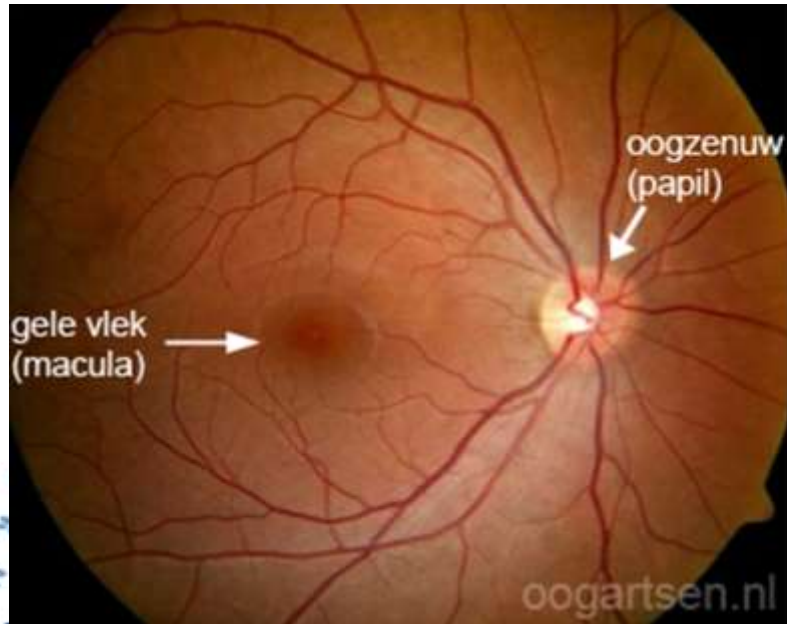


Funduscopie:



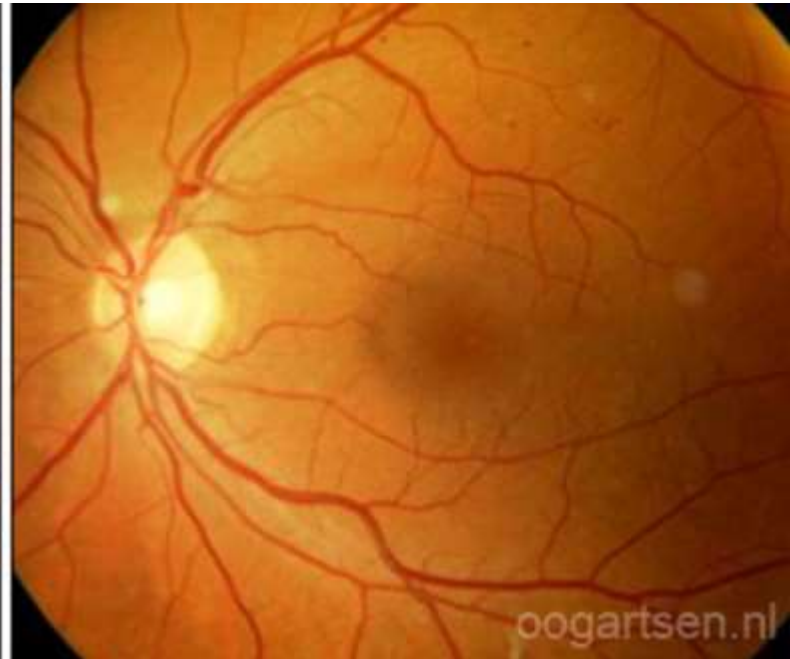
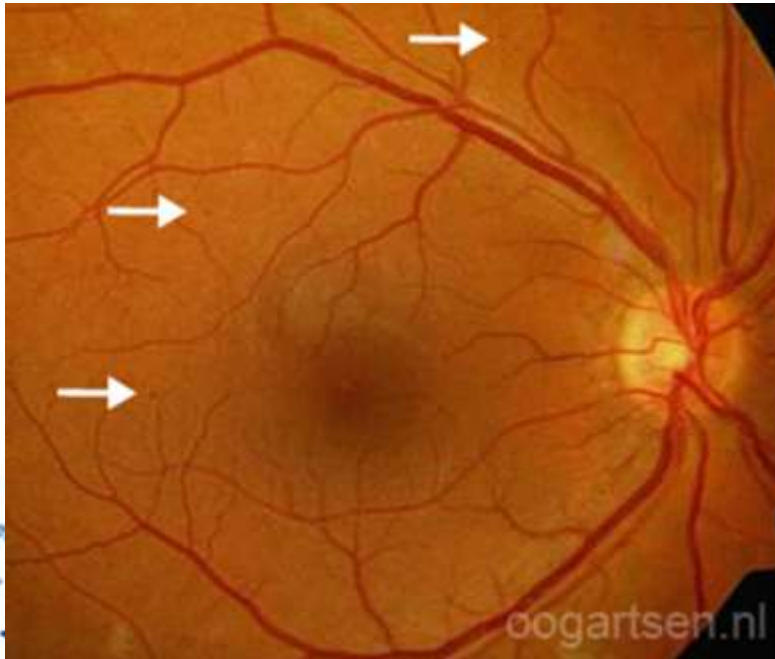


Normale fundus:



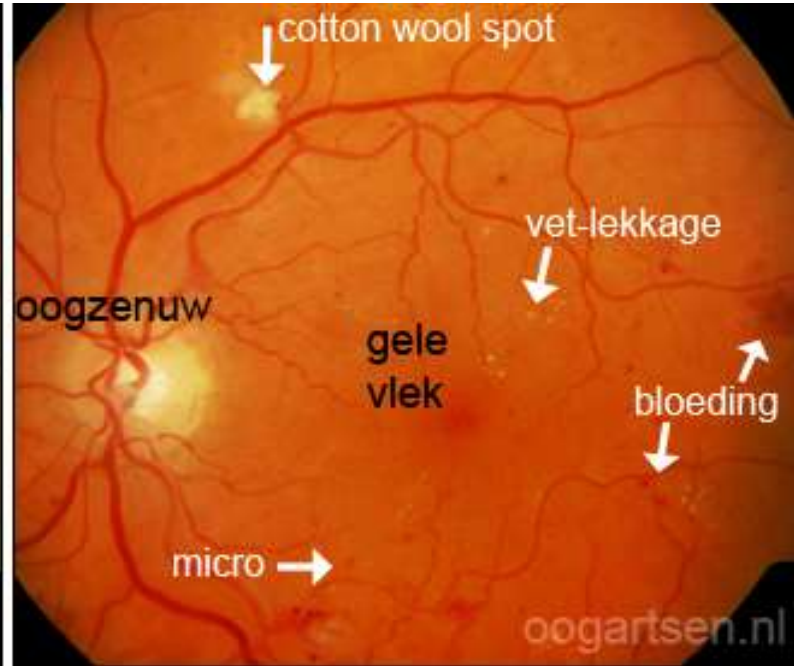
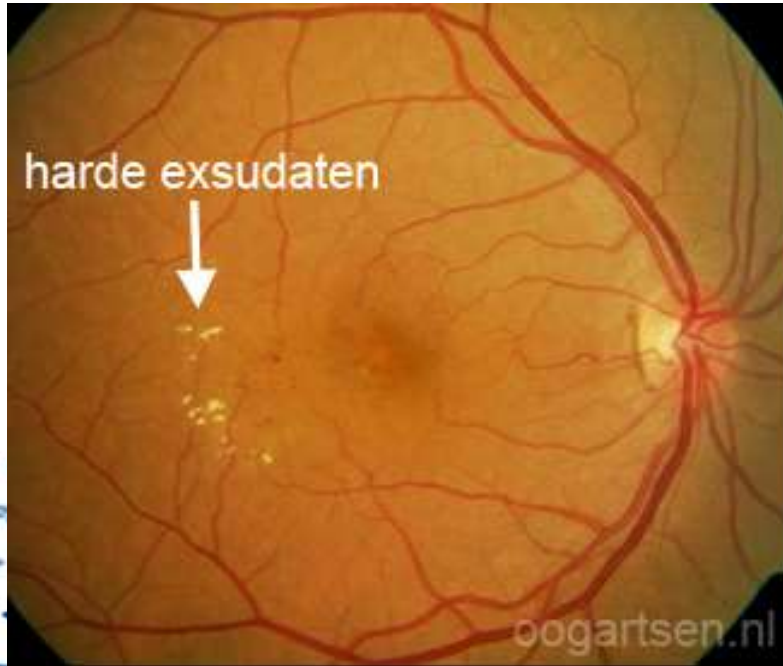


Microaneurysma's / dot bloedinkjes



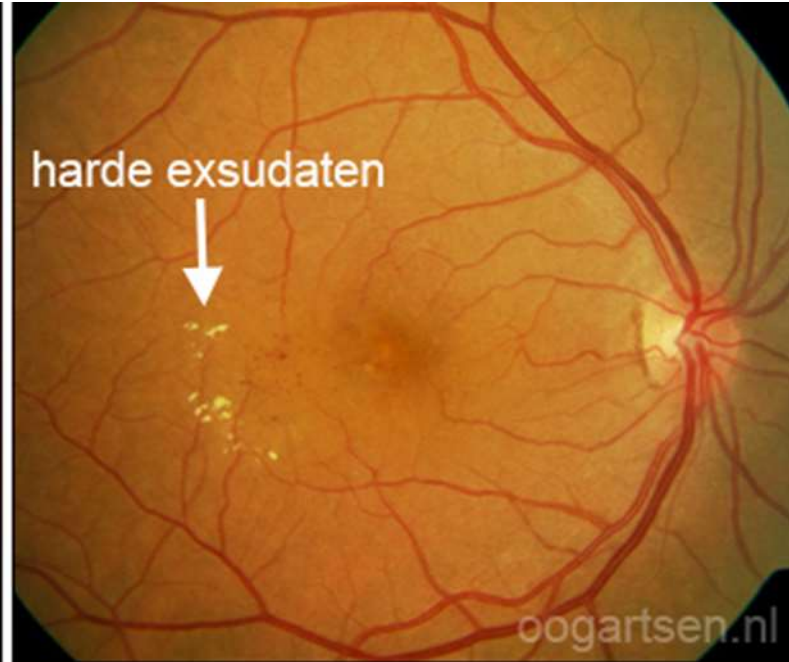


Matige non-proliferatieve DRP



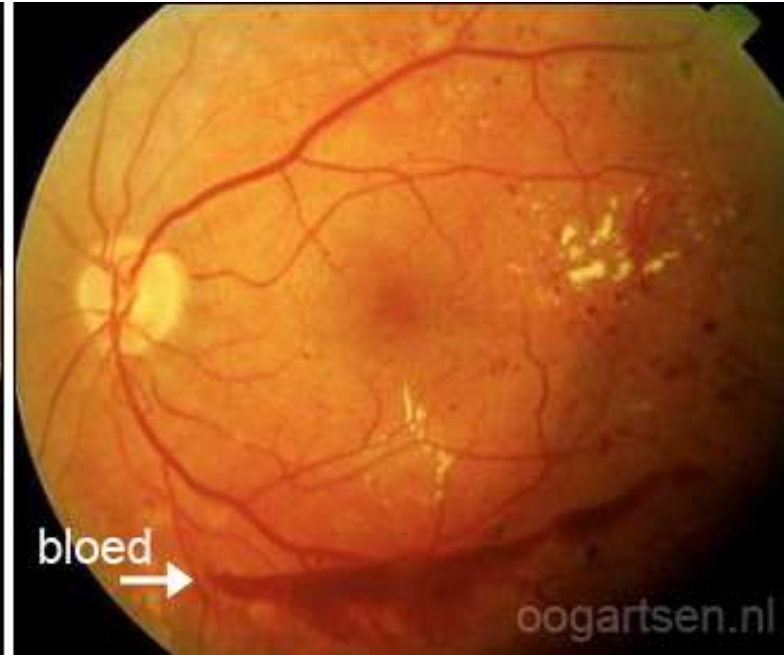


Matige non-proliferatieve DRP



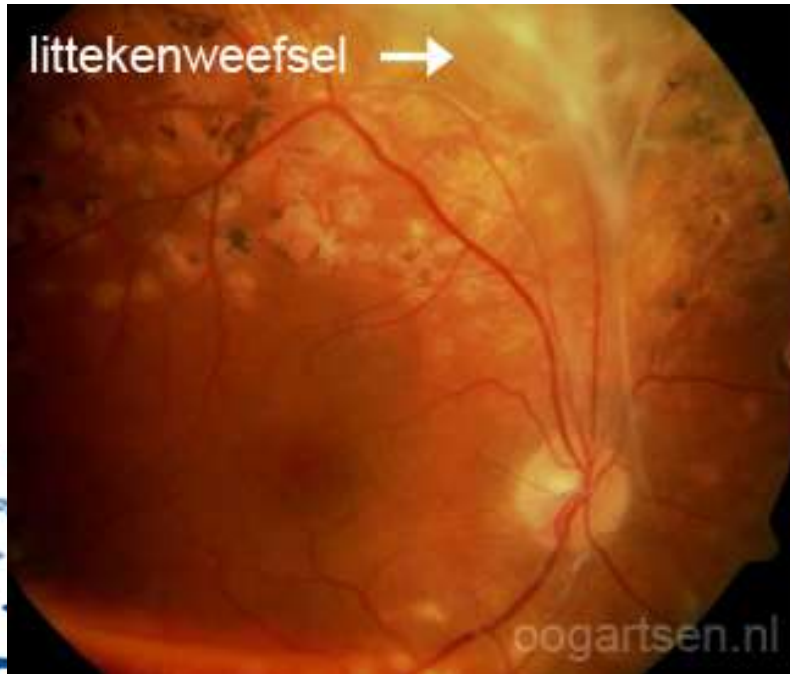


Proliferatieve DRP: Neovascularisatie



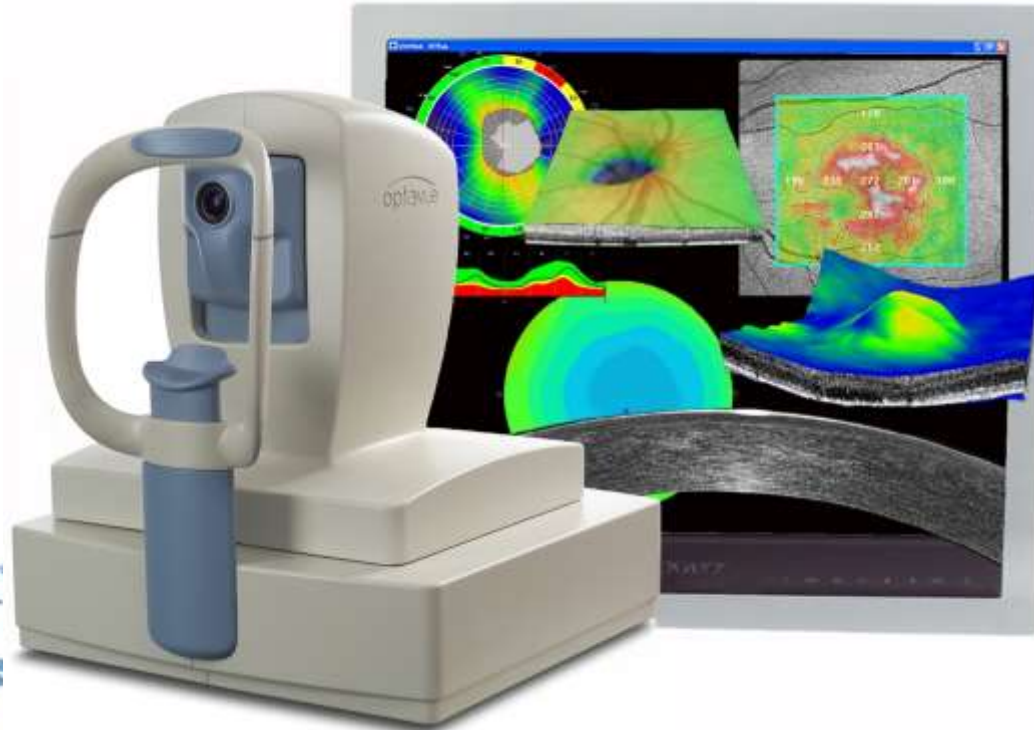


Proliferatieve DRP



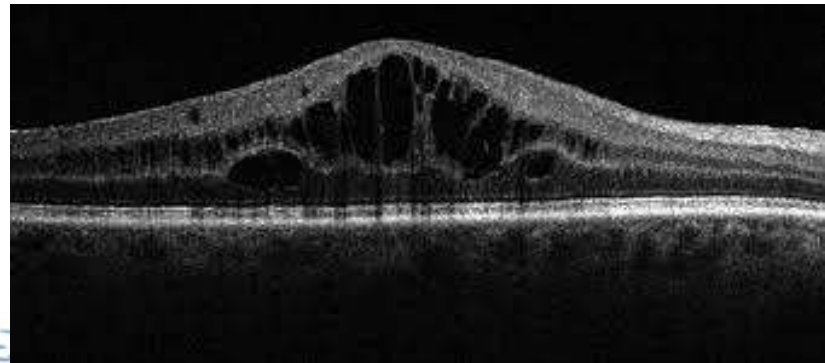
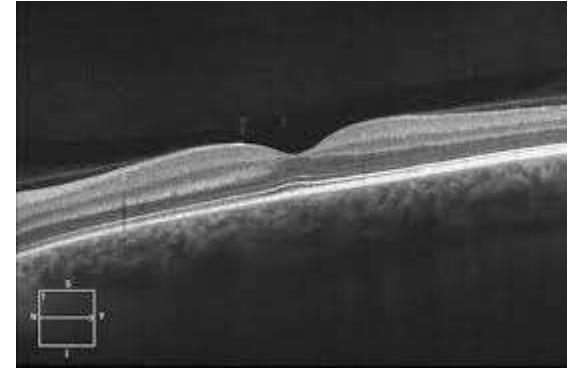
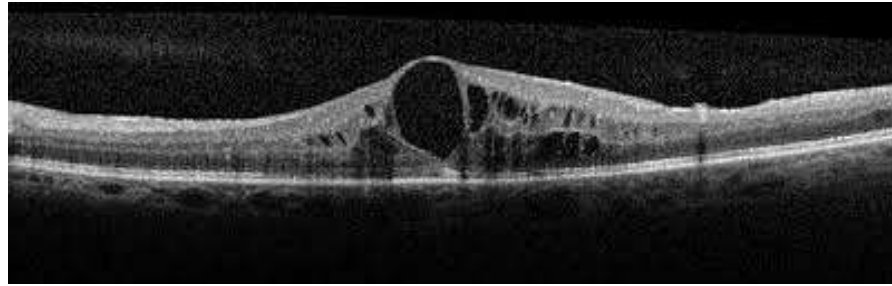


Optical Coherence Tomography (OCT):





Diabetisch macula oedeem



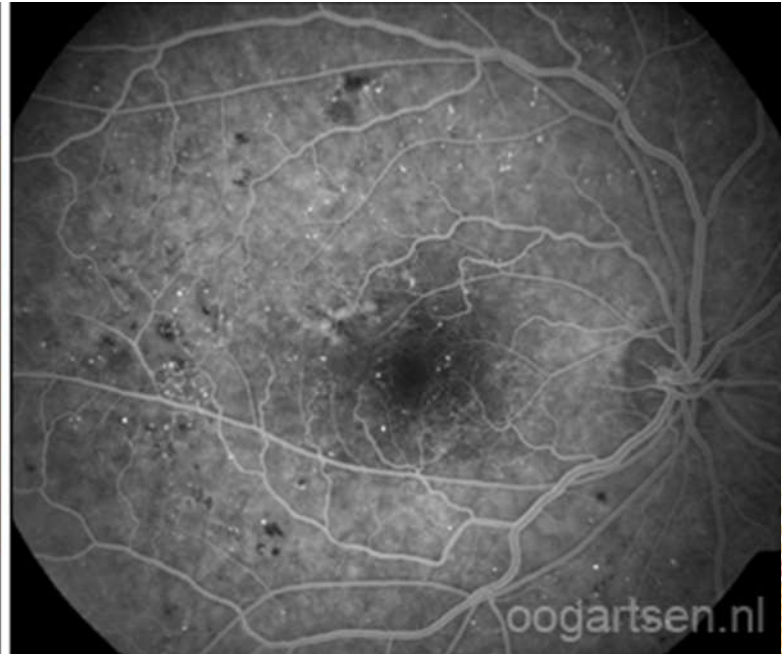
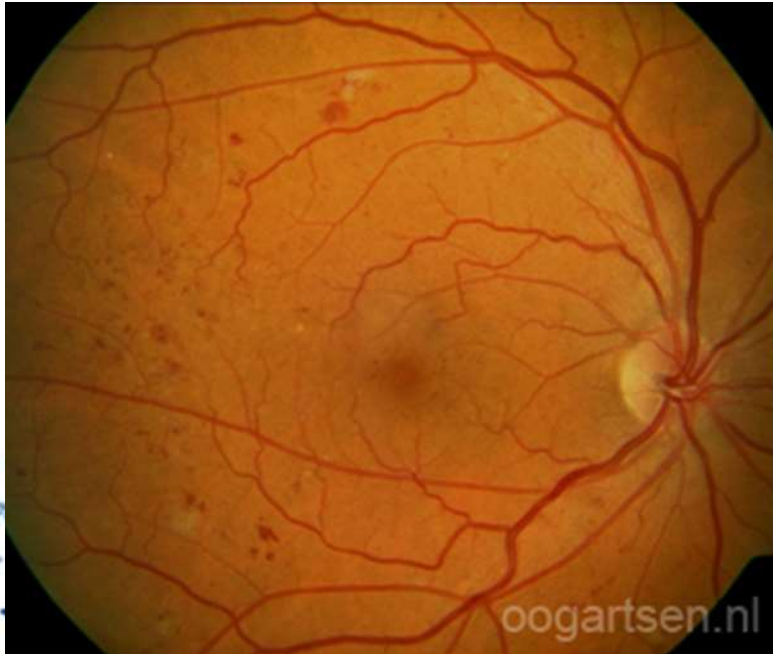


Fluorescentie angiogram (FAG):



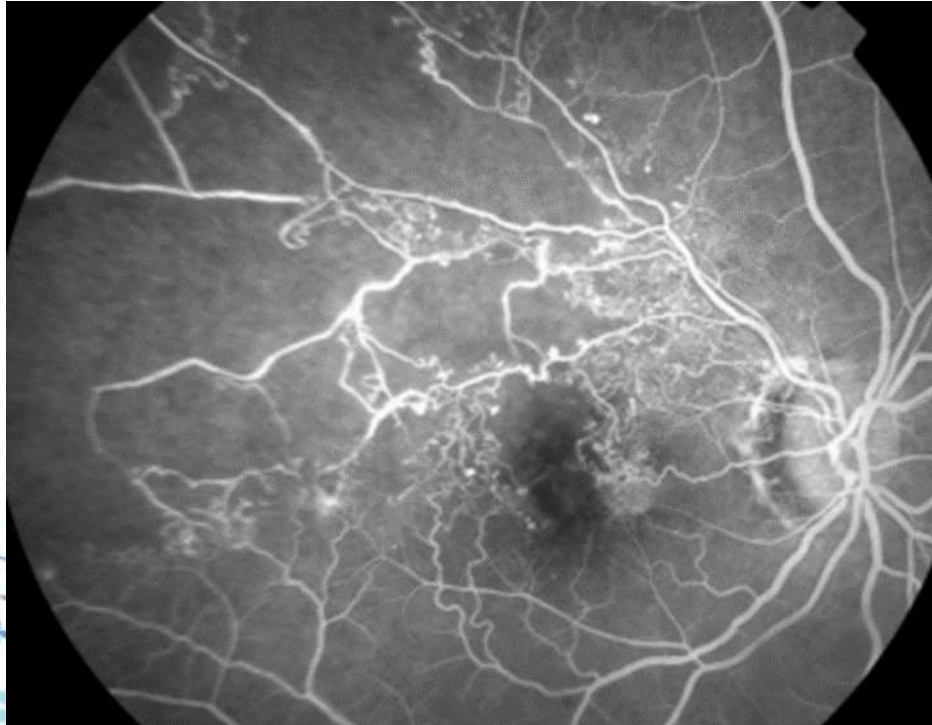


Fluorescentie angiogram (FAG):



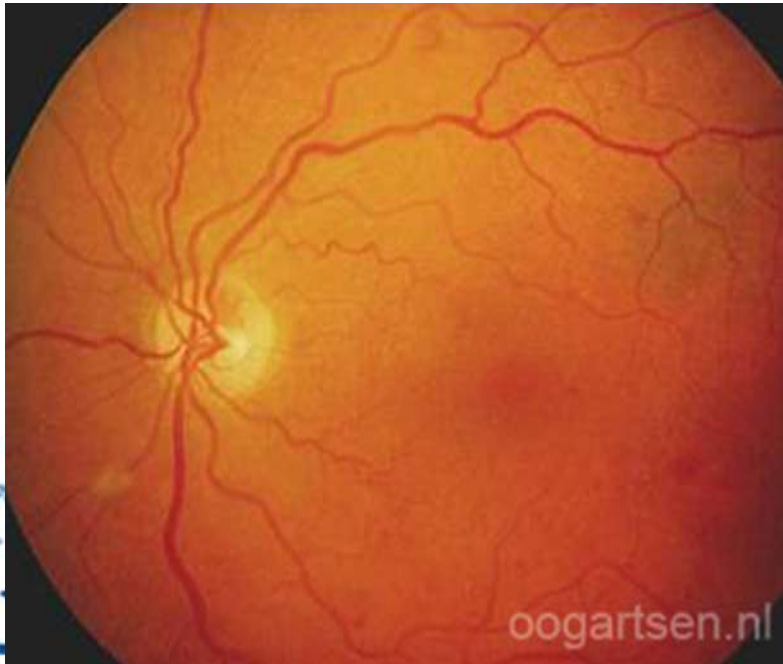


FAG: neovascularisation + ischaemie





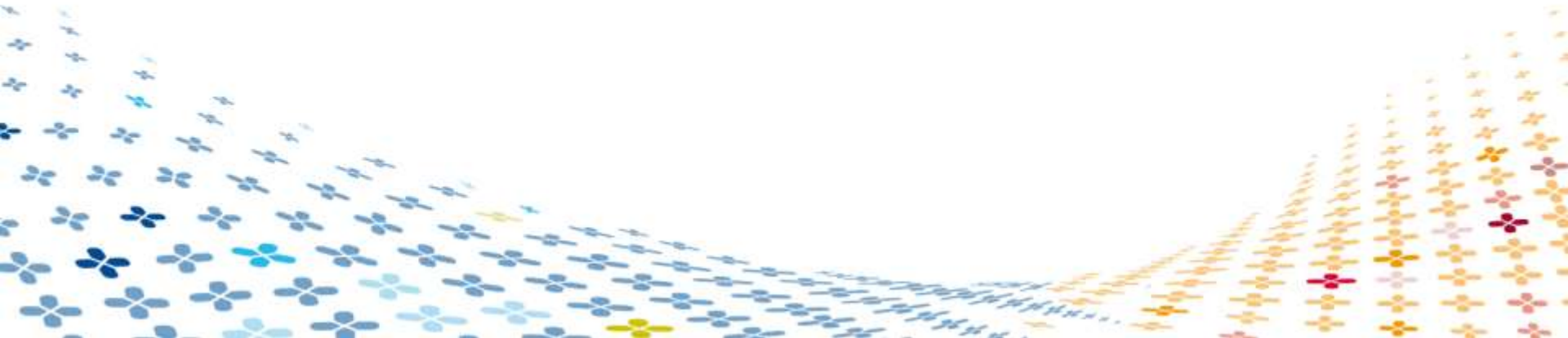
FAG: neovascularisatie





Behandelmethode(n):

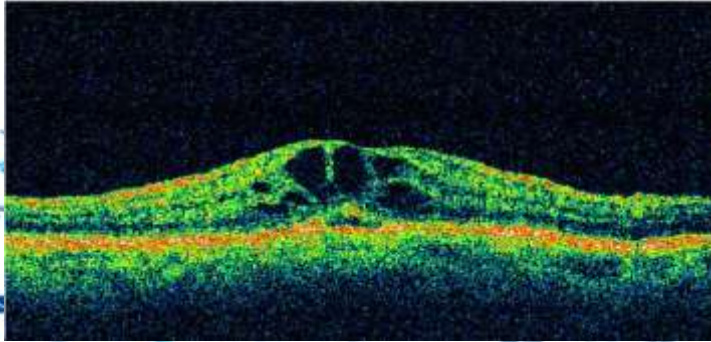
- Injecties
- Laseren
- Vitrectomie
- Combinatie van bovenstaande





Intravitreale injecties met anti-VEGF

- Bij macula oedeem
- Avastin/ Eylea/ Lucentis





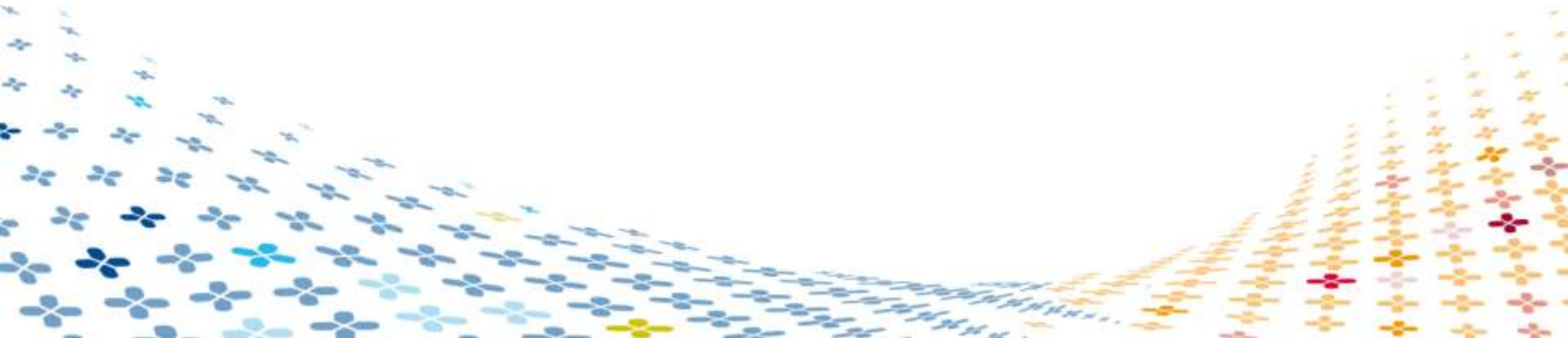
Anti-VEGF:

- Veel behandelingen nodig
- 4 weken of meer tussen behandeling
- Grote kostenpost
- Belasting voor patiënt



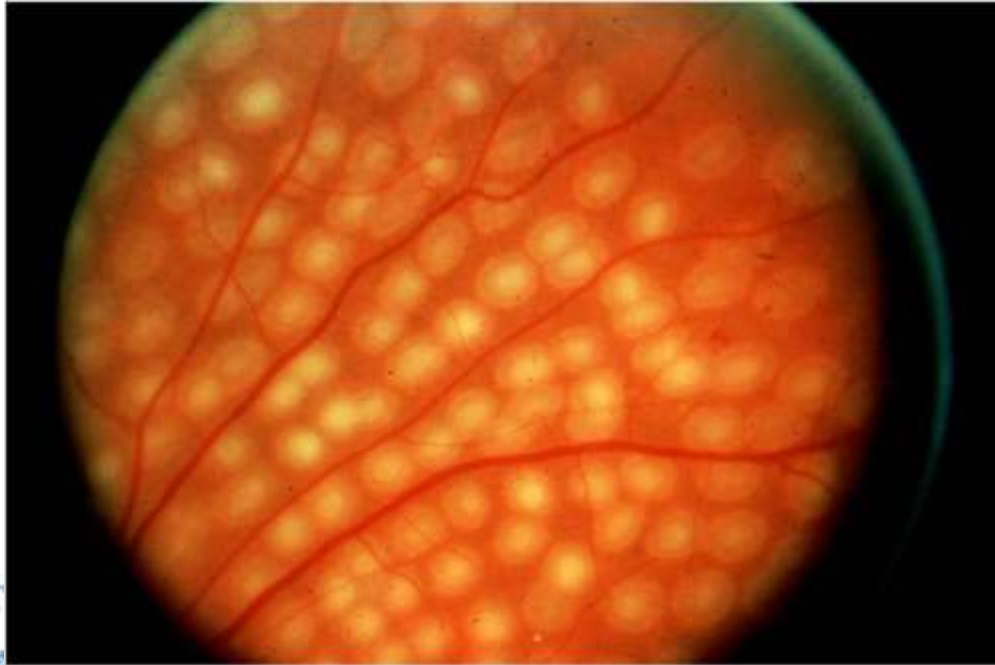


<https://youtu.be/qwW6JfqnbYM>





Laseren:



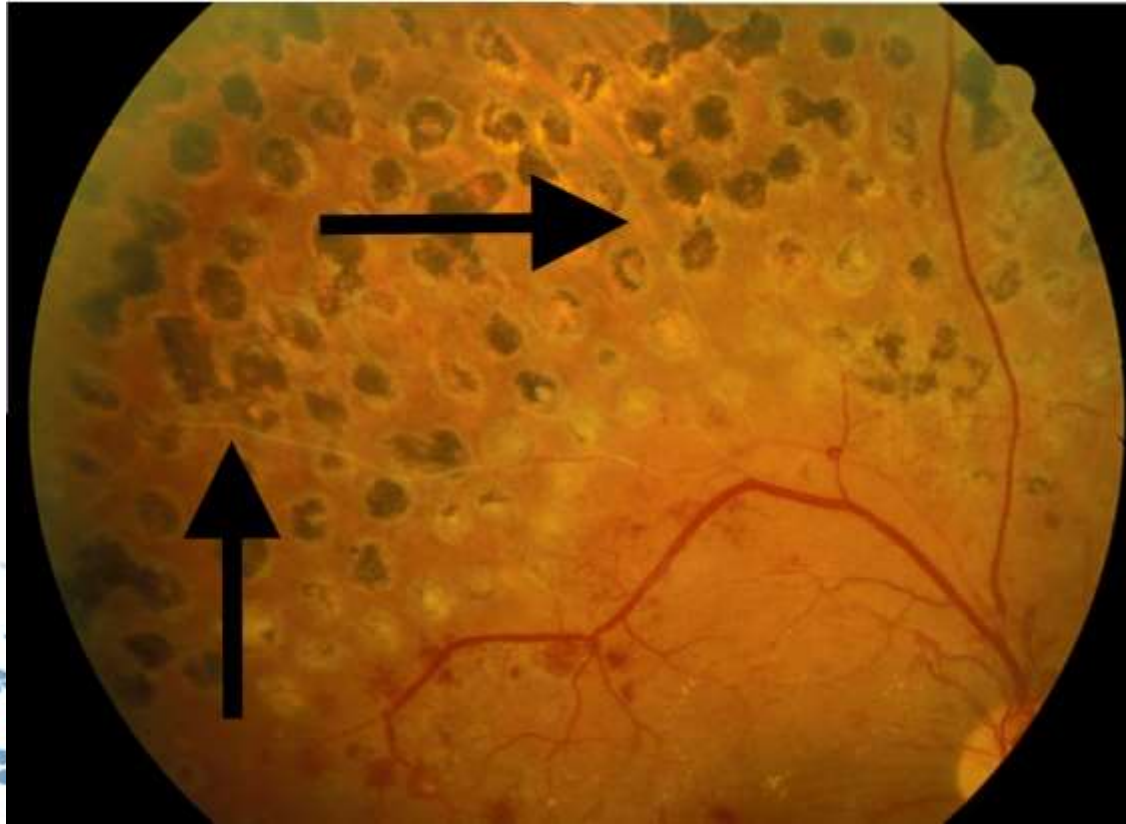


Laseren:



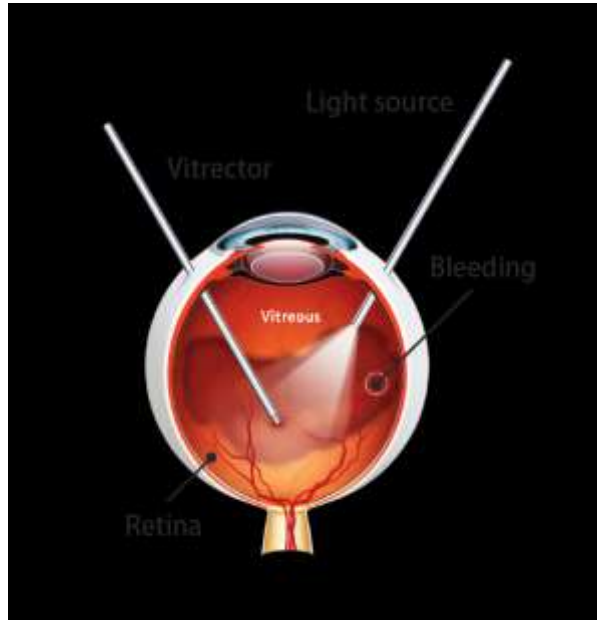
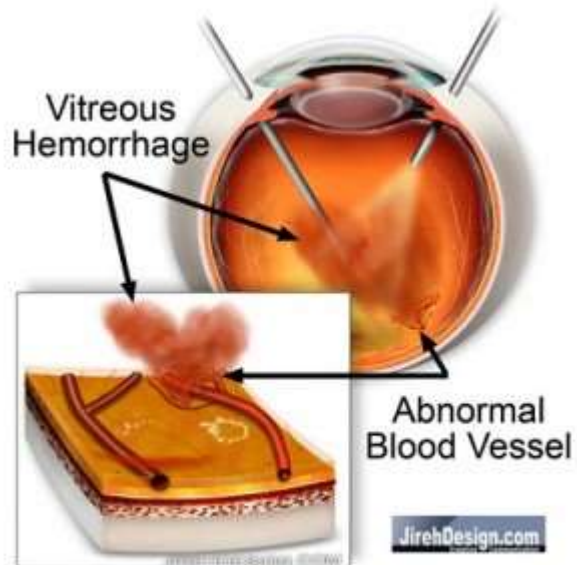


Lasereen:





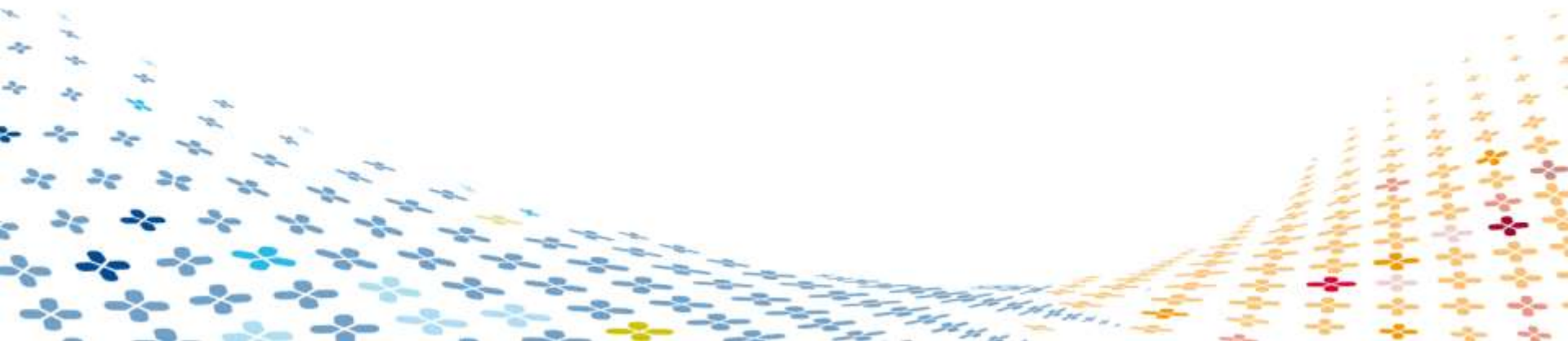
Vitrectomie:





Hypertensie:

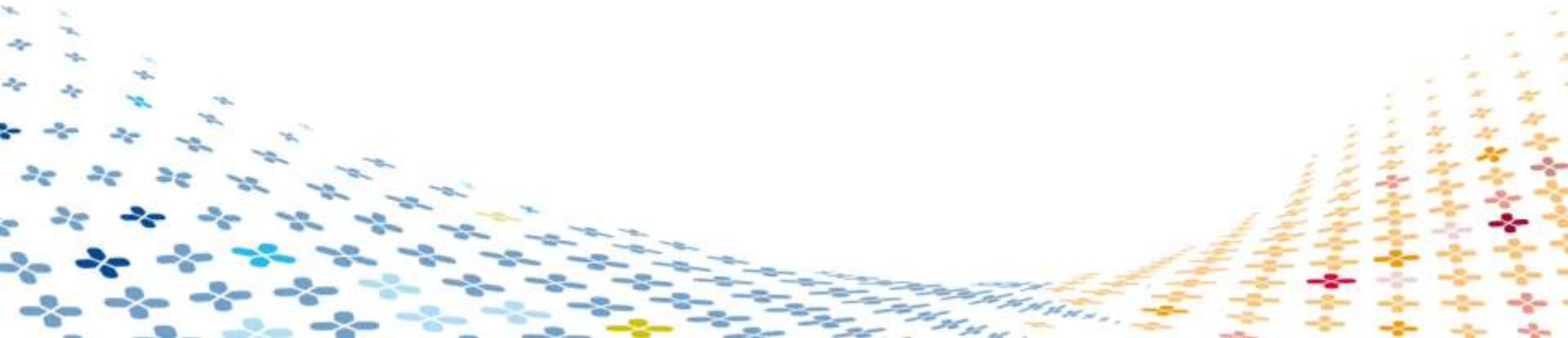
- Schade aan de bloedvaten
- Oog enige plek waar je bloedvaten kan zien
- Afwijkingen ontstaan door:
 - hypertensieve veranderingen (overvulling)
 - arteriosclerotische veranderingen (aderverkalking)

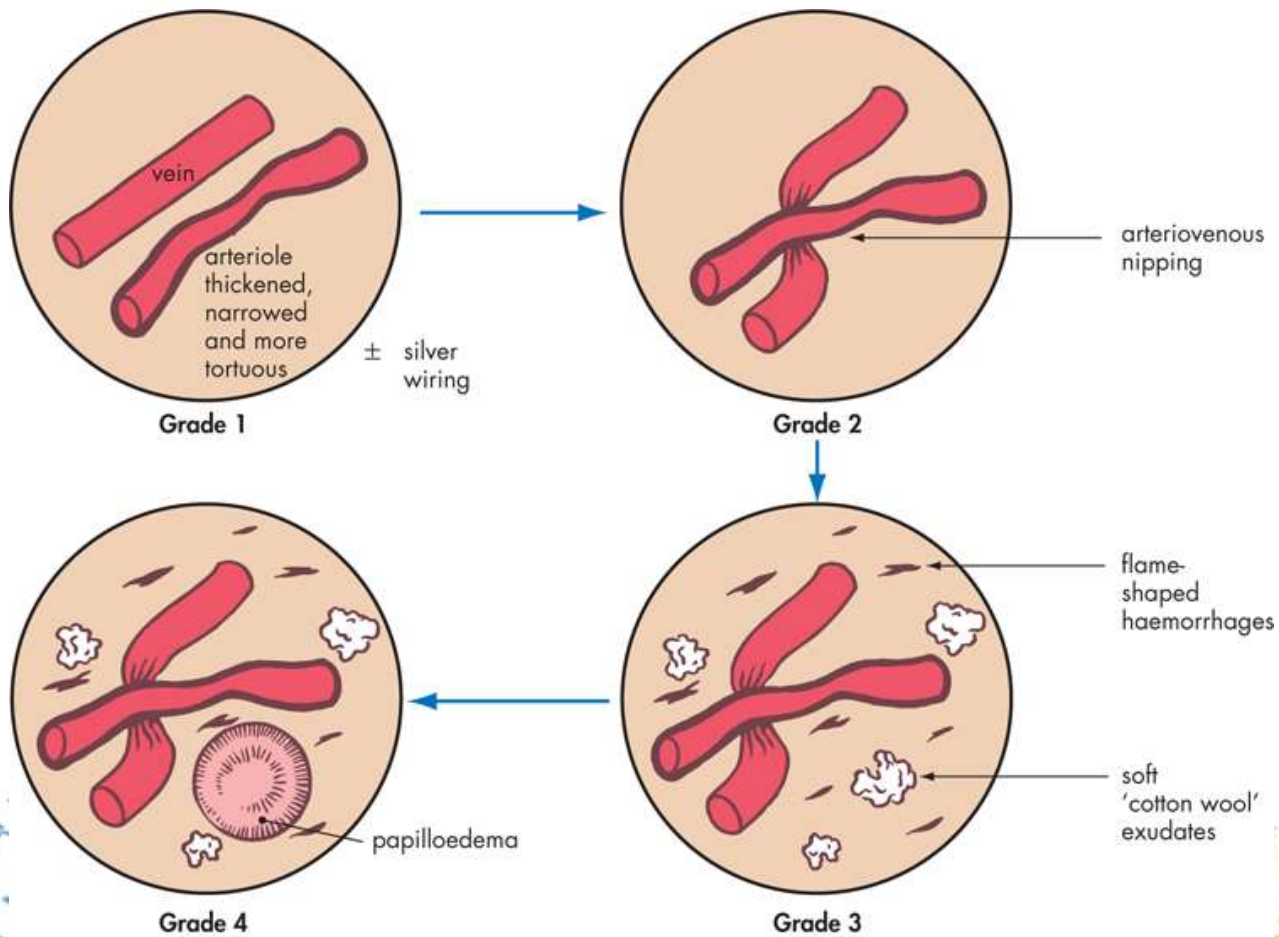




Hypertensieve retinopathie (HR):

- Vernauwing van de retinale vaten
- Lekkage van de retinale vaten





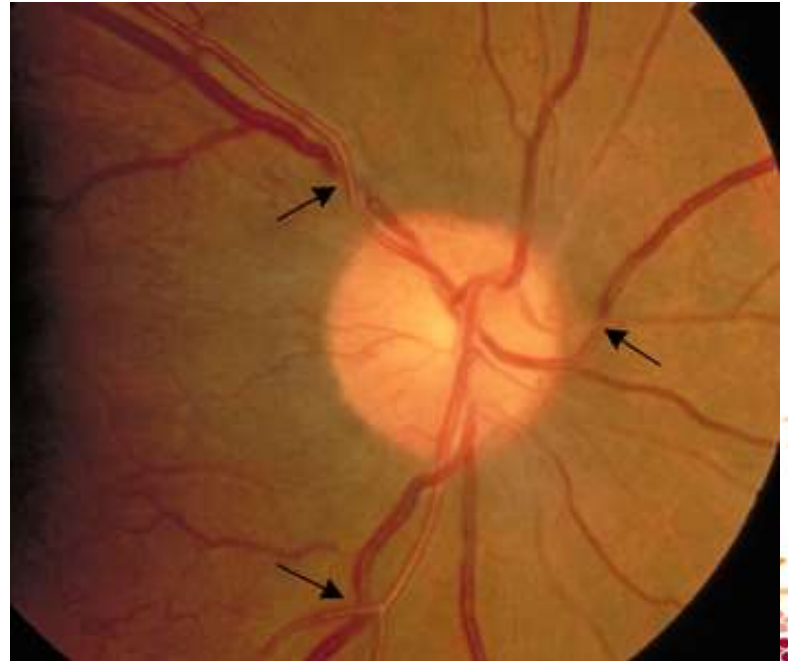
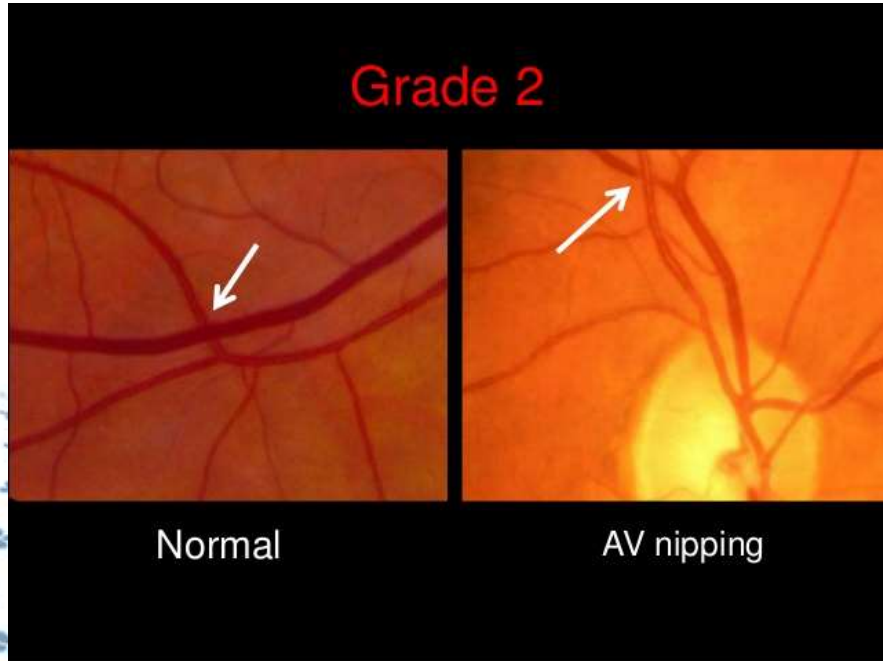


Graad 1: algemene vernauwing



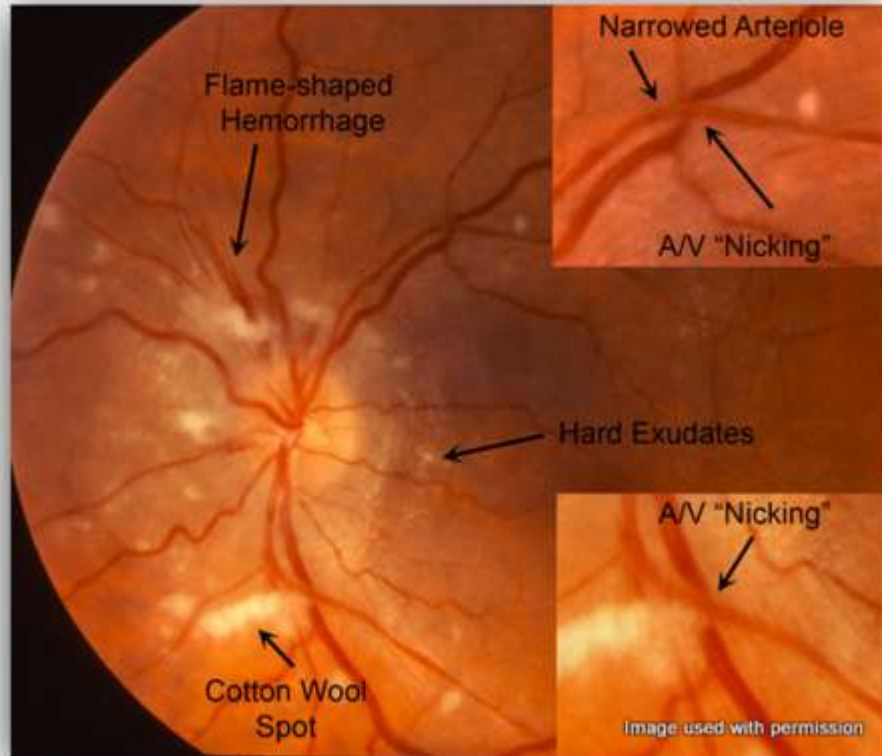


Graad 2: 1+ focale vernauwing



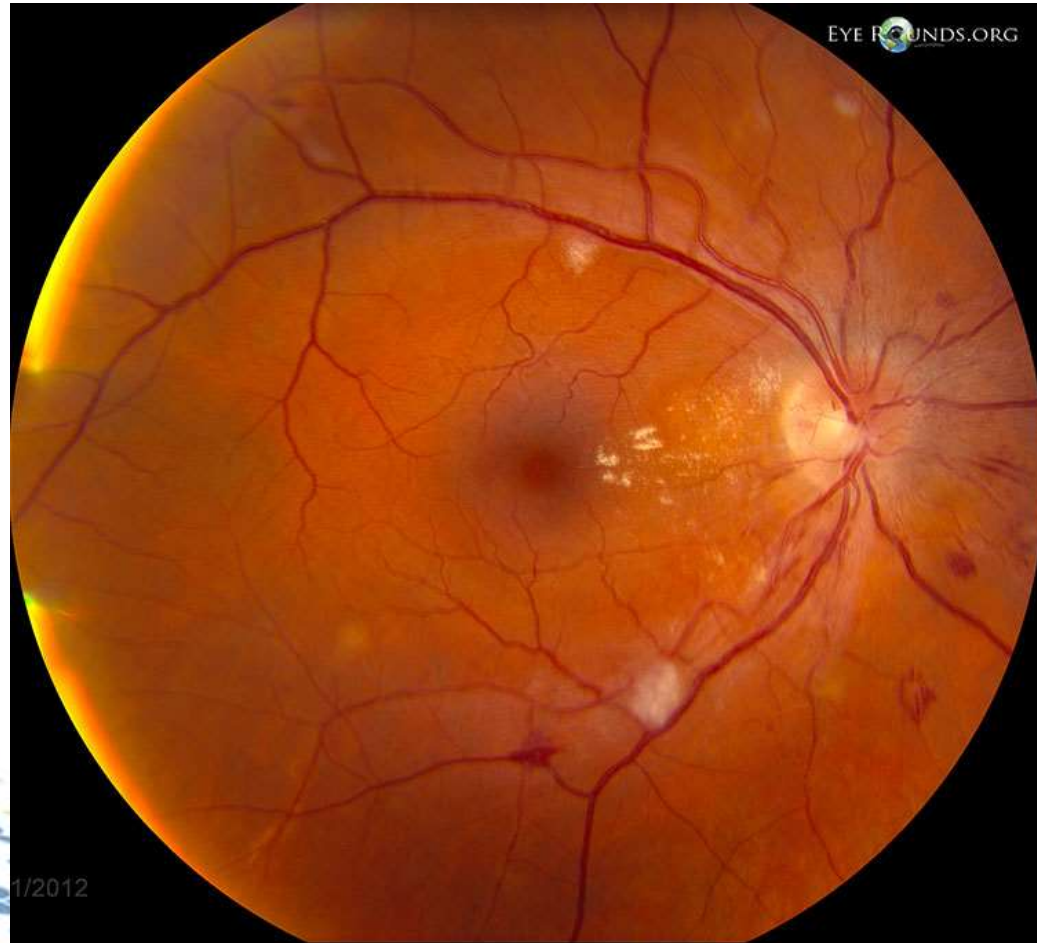


Graad 3: 2 + lekkage





Graad 3:





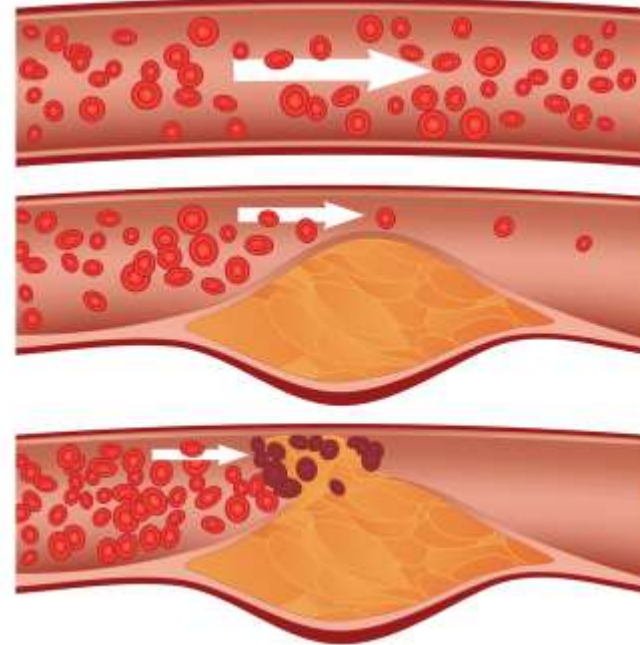
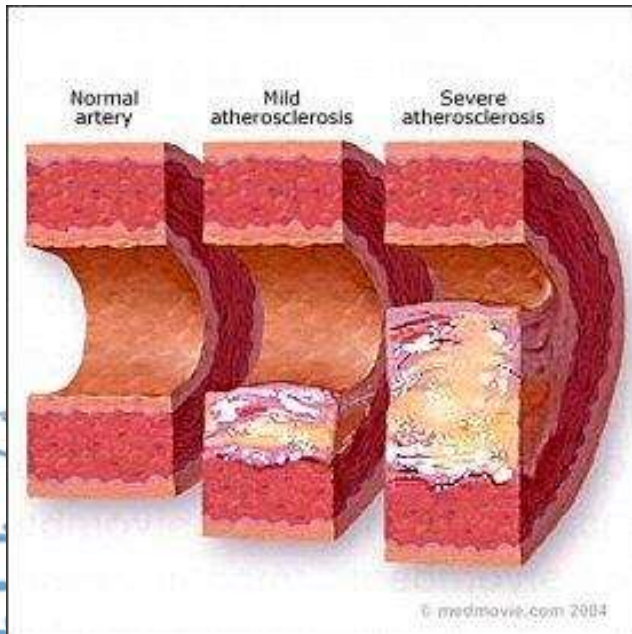
Graad 4: 3+ papiloedeem





Arteriosclerose:

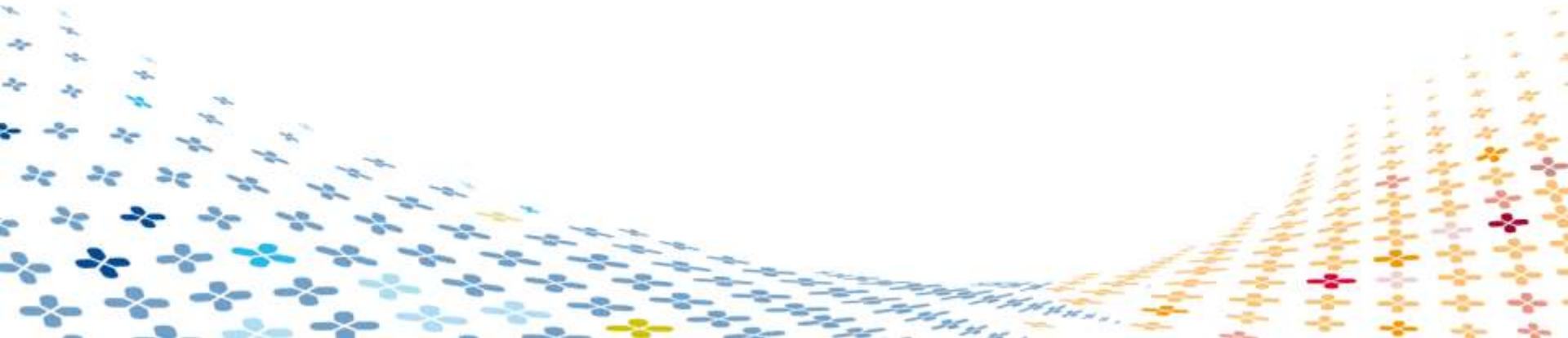
- Niet acuut; langer bestaand -> meer kans op afwijkingen





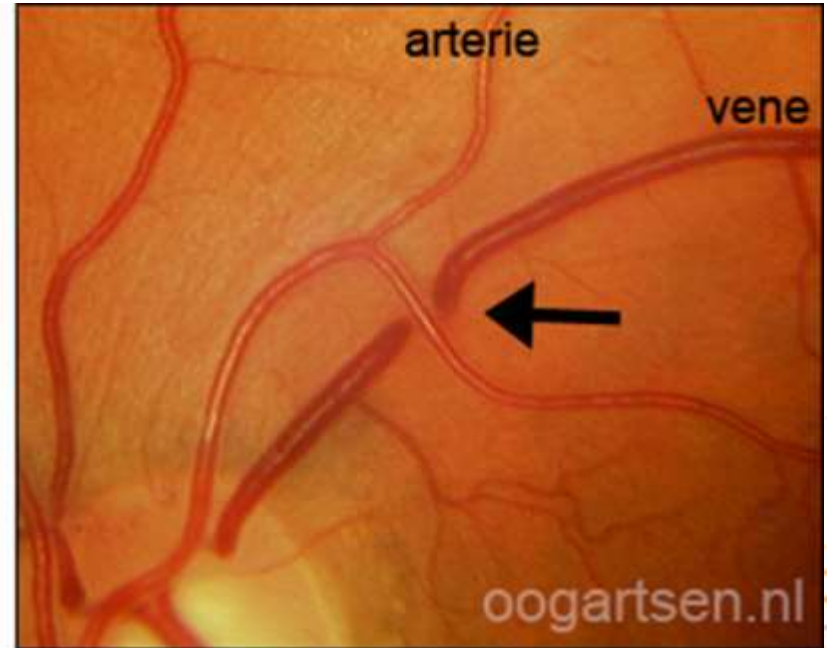
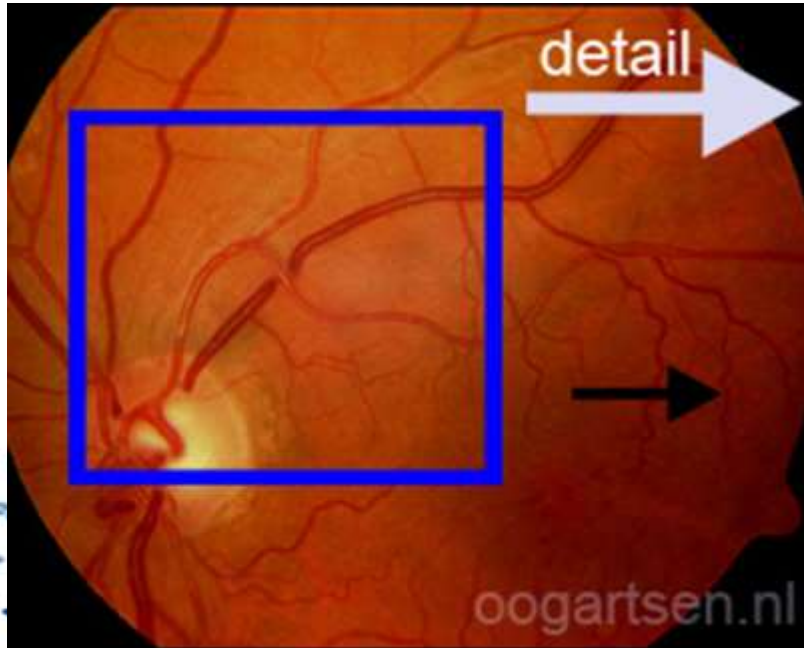
Arteriosclerose:

- Afwijkende vaatwanden
- Afwijkende vaatkruisingen





Arteriosclerose:





Branch retinal vein occlusion (BRVO):





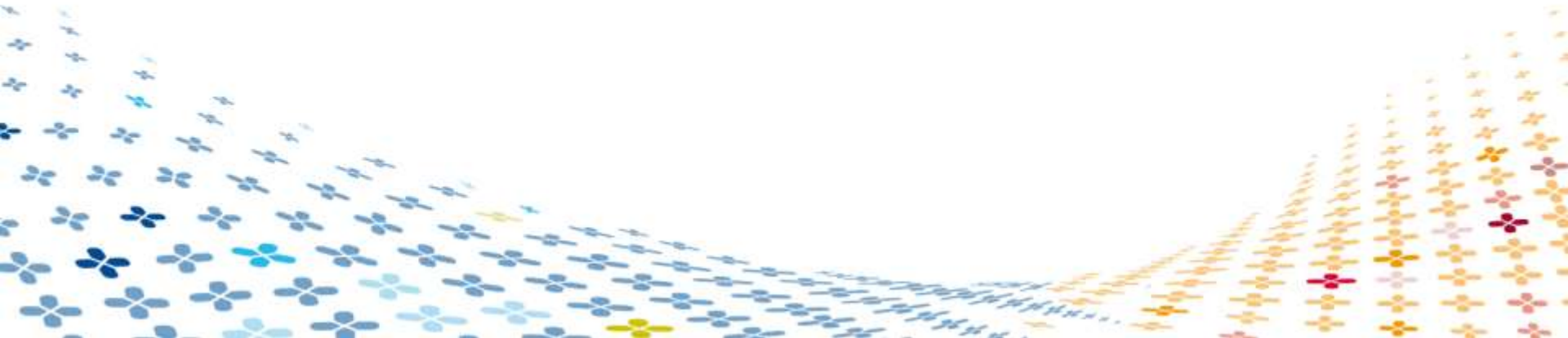
Central retinal vein occlusion (CRVO):





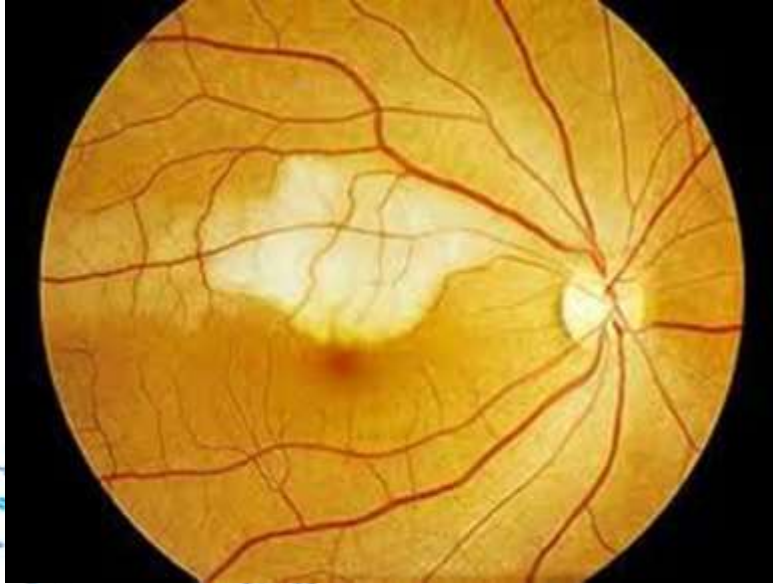
Behandeling:

- Screenen op risicofactoren
- Intravitreale injecties (anti-VEGF)
- Laseren
- Medicatie



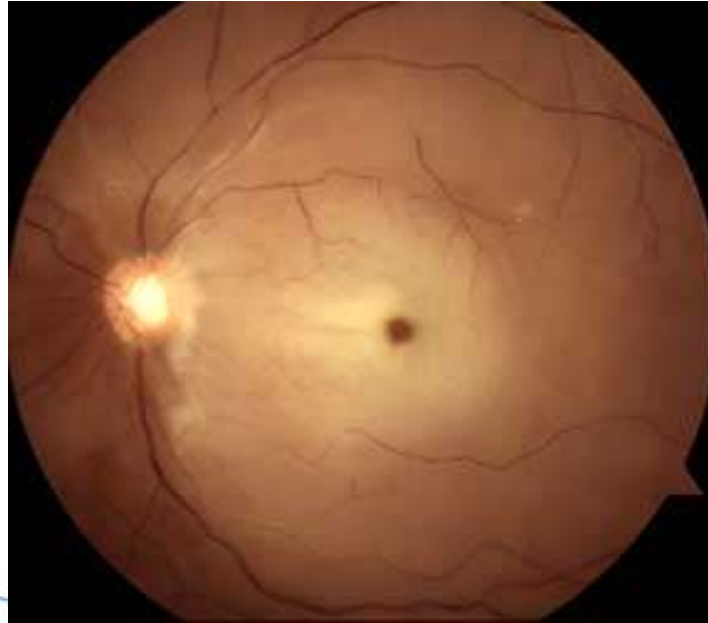


Branch retinal artery occlusion (BRAO):





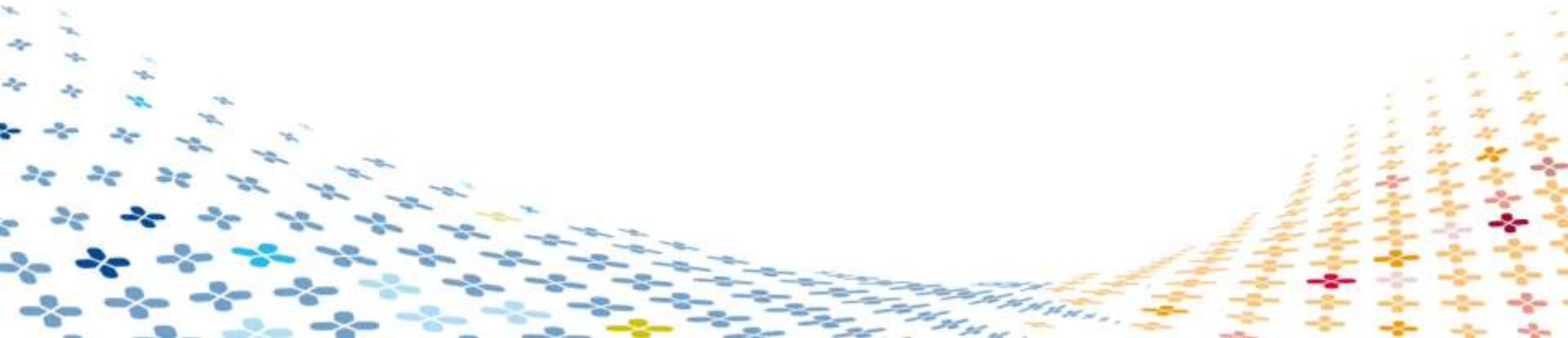
Central retinal artery occlusion (CRAO):





Behandeling:

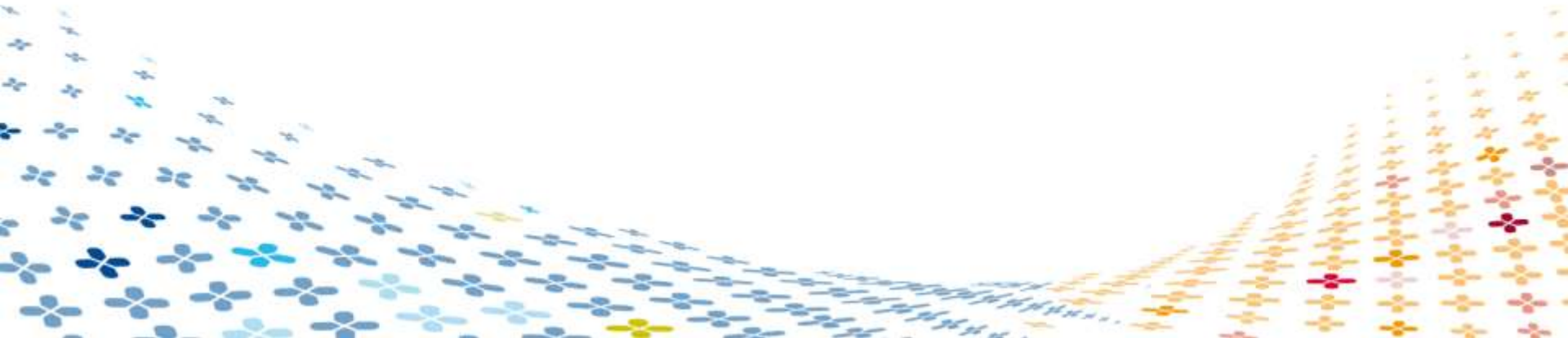
- Verbeteren van bloedvoorziening (in acute fase): oogmassage
- Screenen op risicofactoren/ oorzaken
- Medicatie





Bedankt voor jullie aandacht!

Vragen?





https://youtu.be/2Q_p6FV9U8k

