BEN JE GEDOEMD TOT BLINDHEID OF IS ER NOG HOOP?

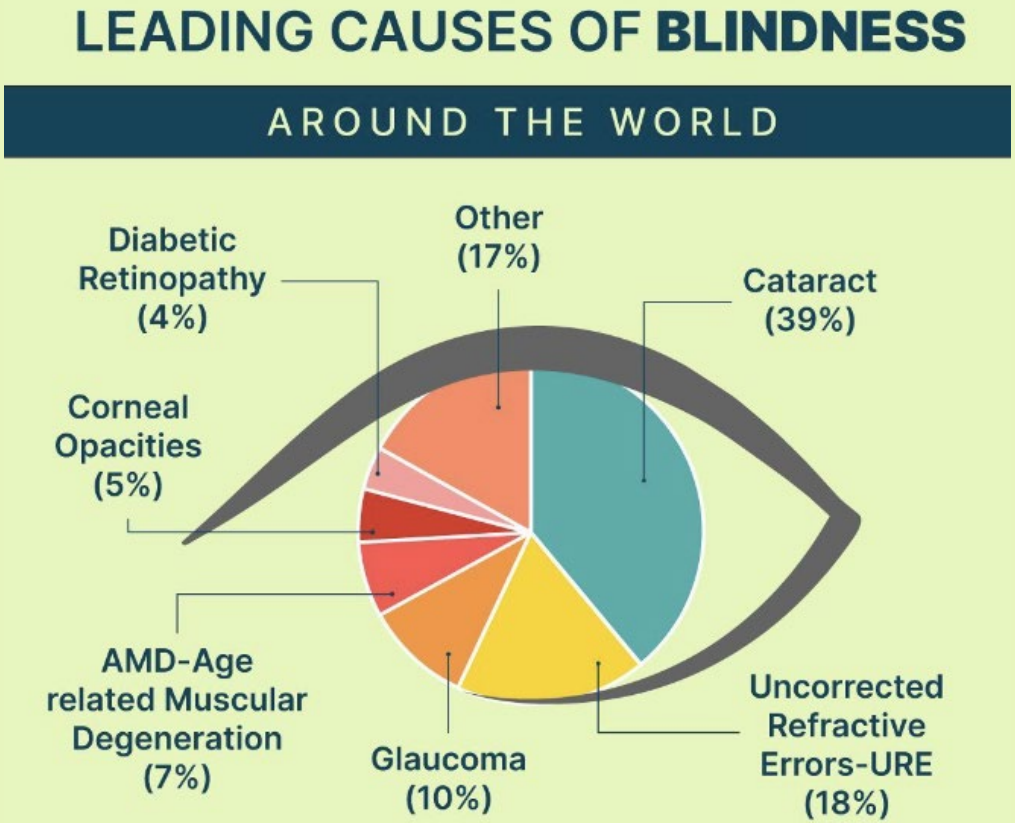
Prof. dr. Caroline Klaver, oogarts-epidemioloog

namens onderzoeksteams
Erasmus MC Rotterdam & Radboudumc Nijmegen

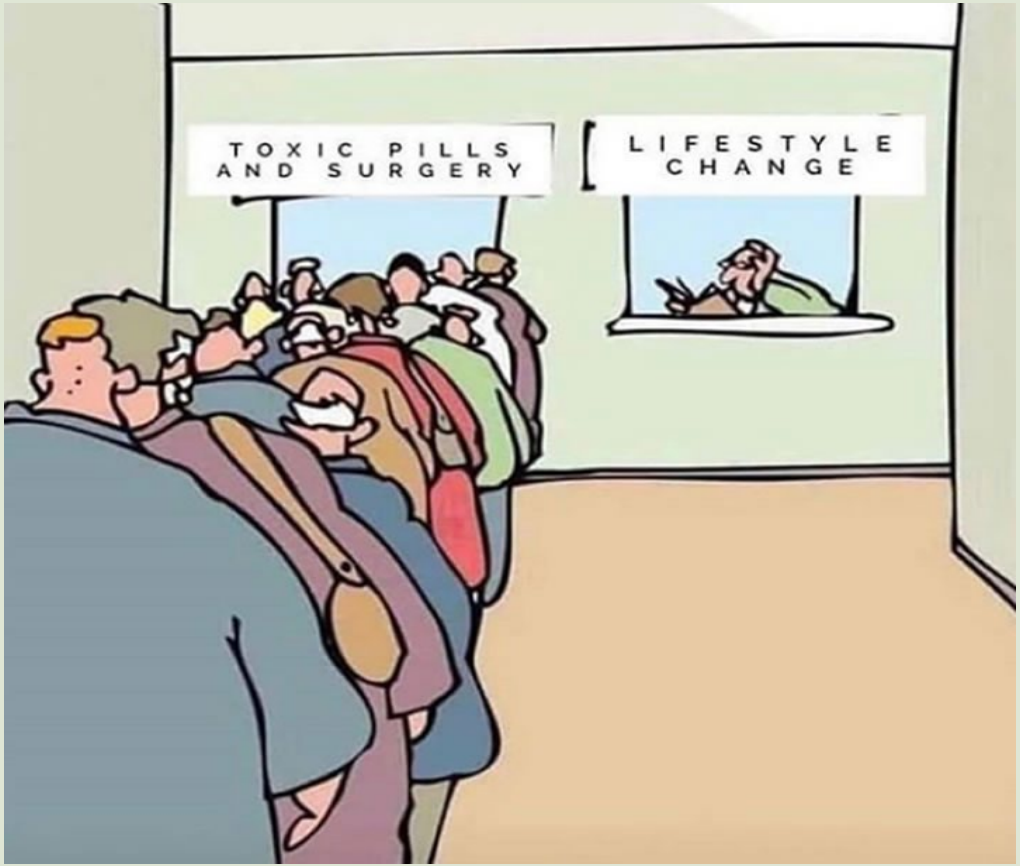
Erasmus MC
University Medical Center Rotterdam

Radboudumc

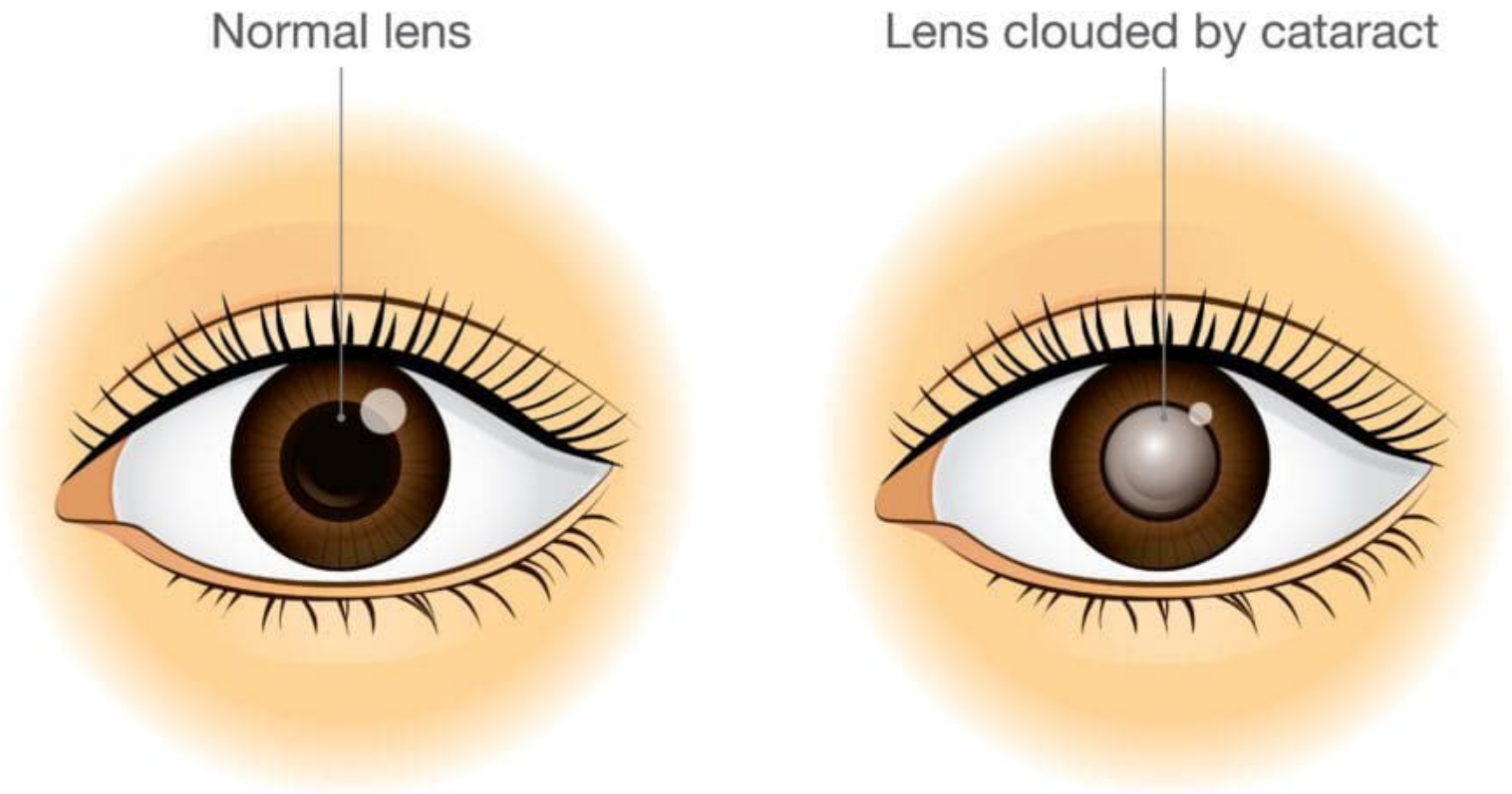
GROOTSTE OORZAKEN VAN BLINDHEID



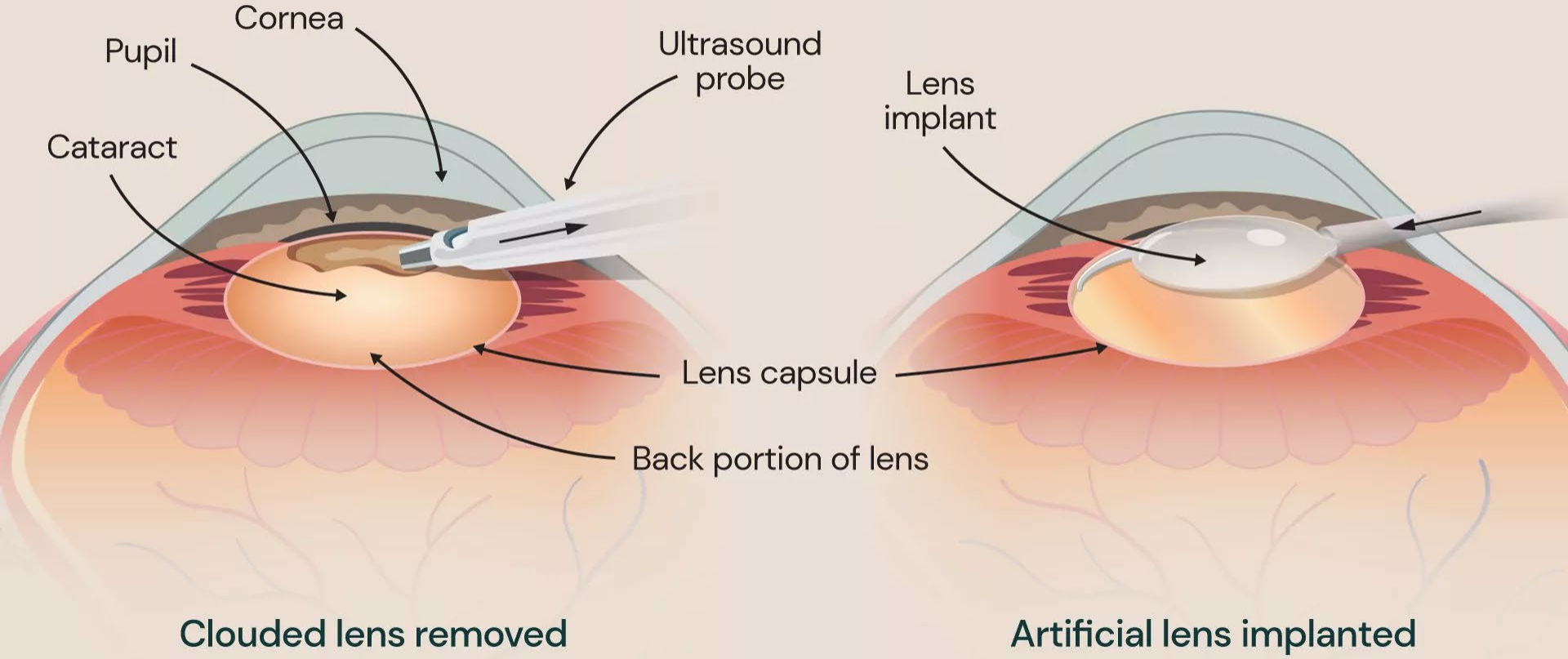
WAT HEBBEN MENSEN OVER VOOR PREVENTIE?



CATARACT = STAAR



Cataract surgery



Clouded lens removed

Artificial lens implanted

RISK FACTORS FOR CATARACT

Steroid Intake

Family History

Old Age

Diabetes

Heavy Alcohol Use

High Blood Pressure

Obesity

Smoking

RISK FACTORS FOR CATARACT

Steroid Intake

Family History

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Diabetes

Heavy Alcohol Use

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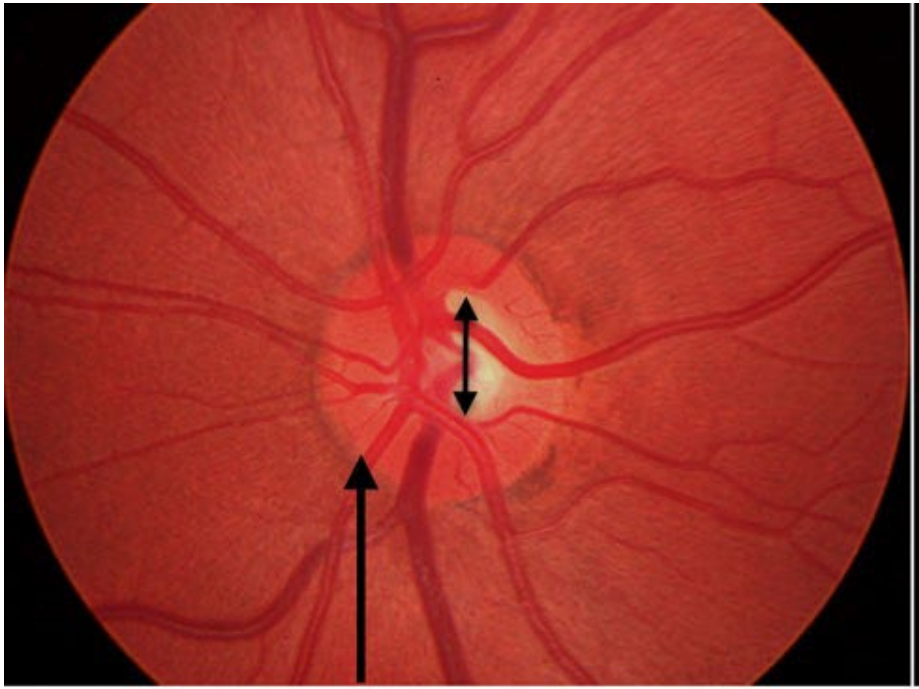
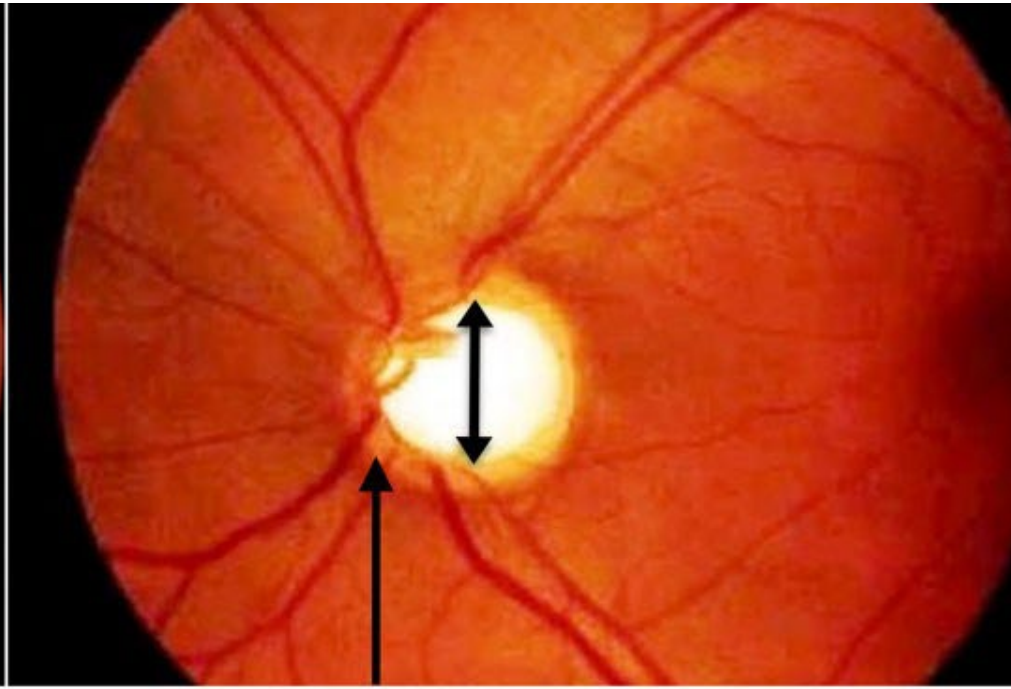
Obesity

Smoking

GLAUCOOM



Normal optic nerve head



Glaucomatous cupping

Normal

Early stage

Middle stage

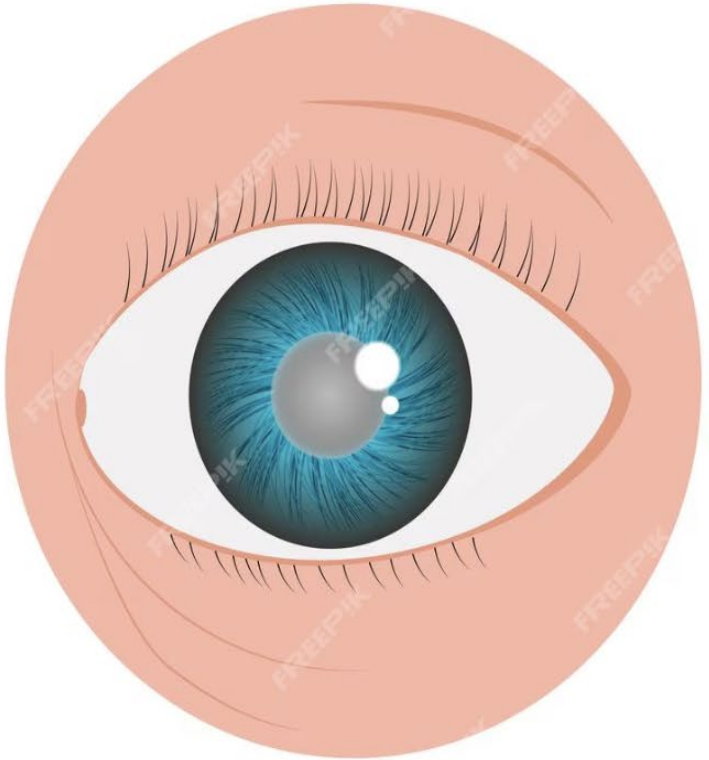
Advanced stage

Eye Drops for Glaucoma

Risk Factors for Glaucoma

Experience migraines

Diabetes mellitus



Prolonged course of cortisone (steroid) medication

High eye pressure

High or low blood pressure

Short or long sighted

Ethnic group

Family history

Old age

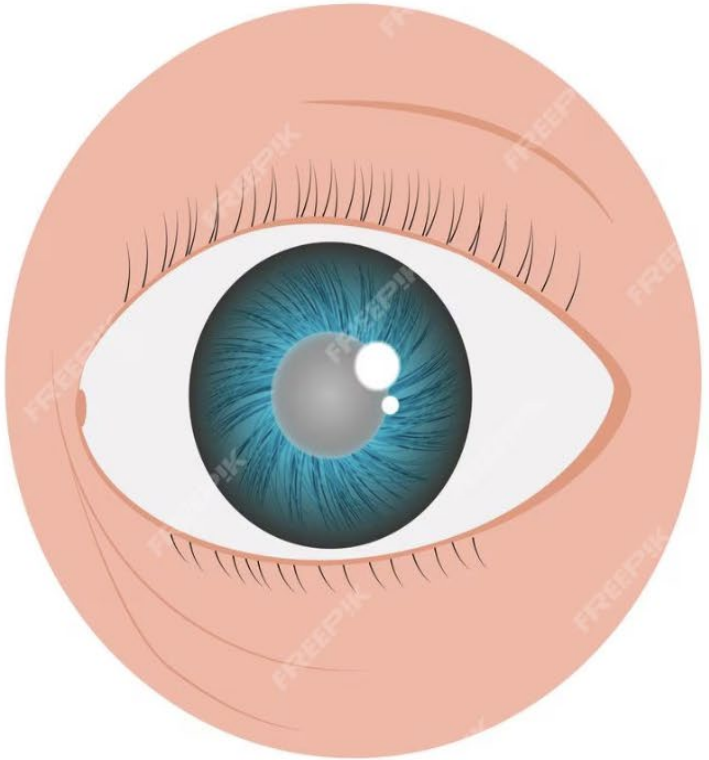
Obstructive sleep apnoea

Eye operation or eye injury

Risk Factors for Glaucoma

Experience migraines

Diabetes mellitus



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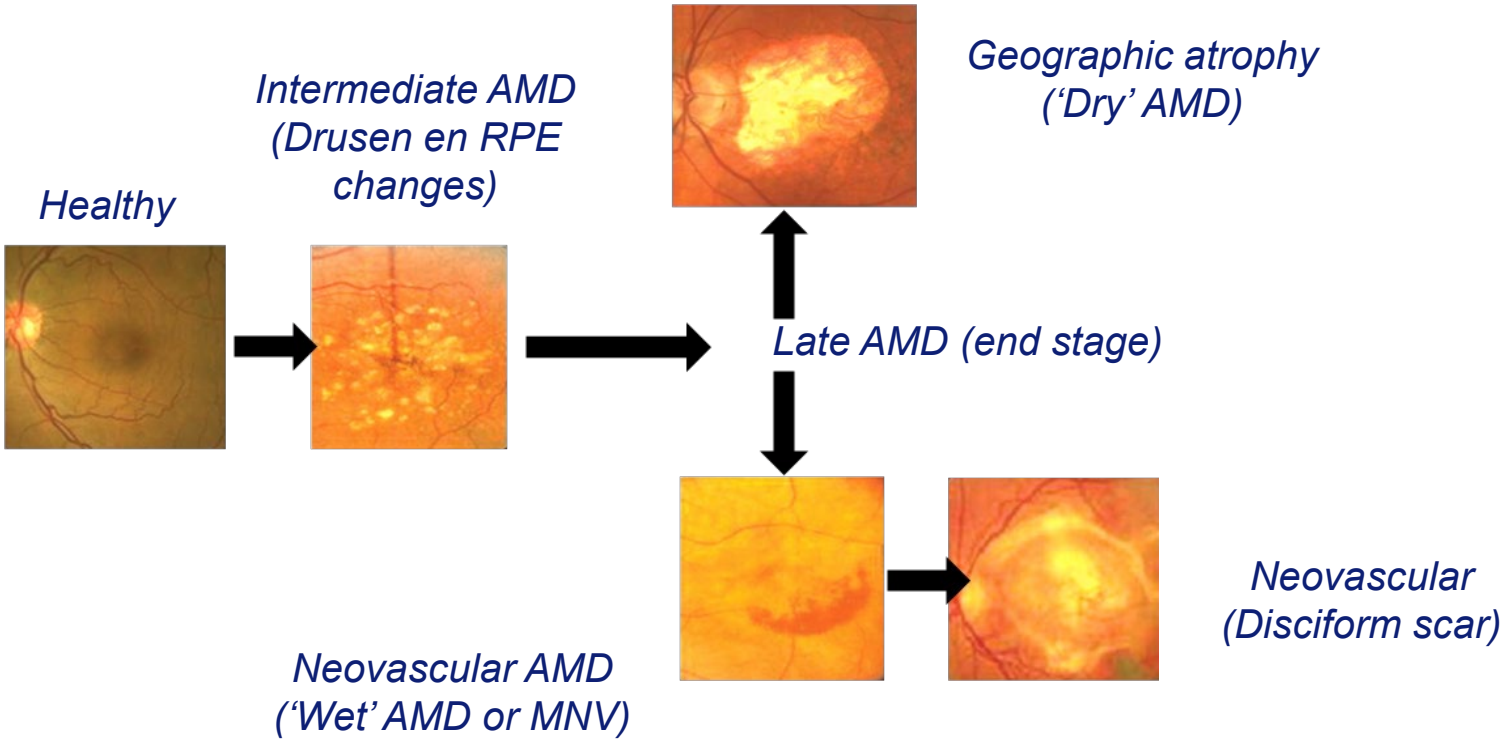
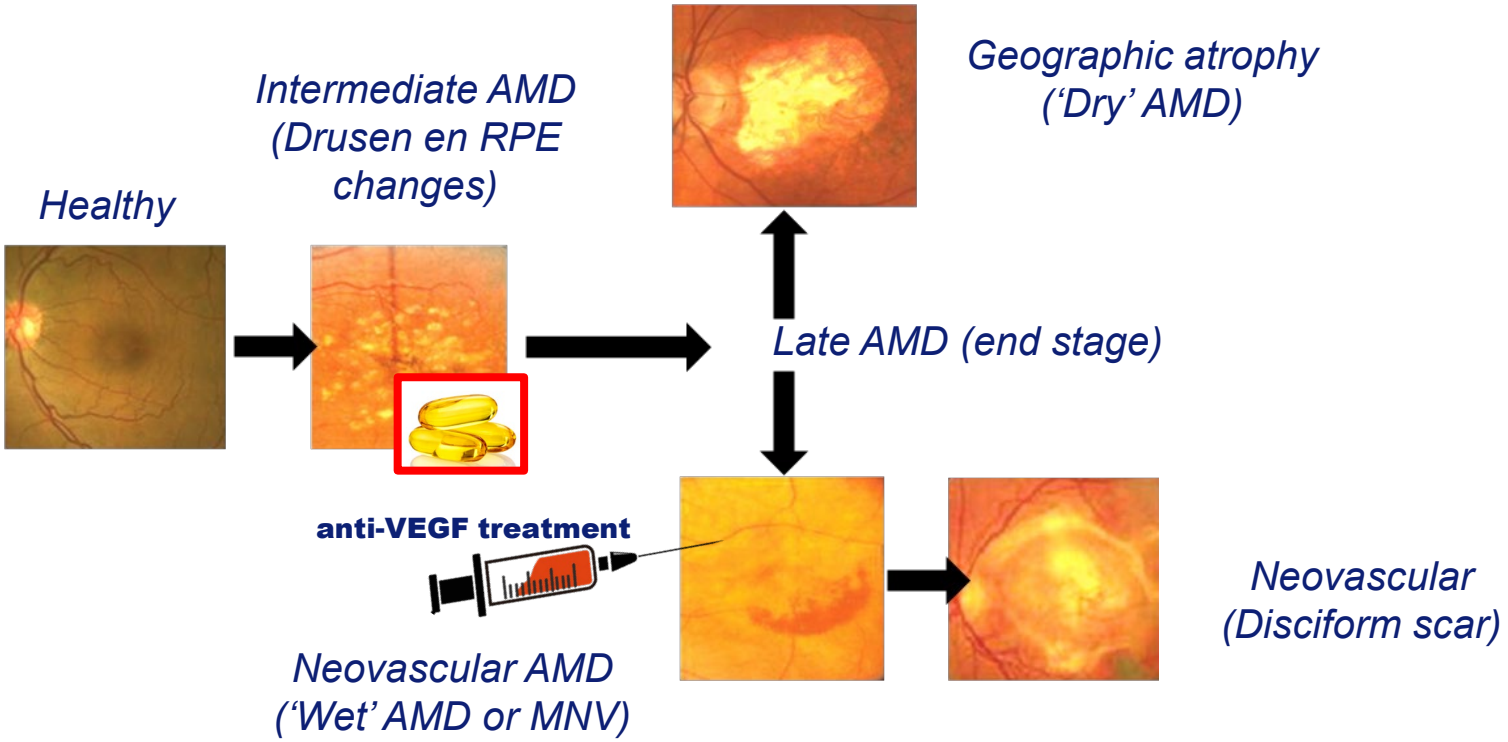
LEEFTIJD-GEBONDEN MACULADEGENERATIE



LEEFTIJD-GEBONDEN MACULADEGENERATIE



RISICOFACTOREN VOOR MACULADEGENERATIE

Non-modifiable Risk Factors	Modifiable Risk Factors
Age ≥50	Smoking
Caucasian (white) ethnicity	Low physical exercise
Family history of AMD	A diet low in omega-3 fatty acids and dark green leafy vegetables
Genetic variants, such as abnormal complement factor H	Cardiovascular disease
	Diabetes
	Hypertension
	Obesity

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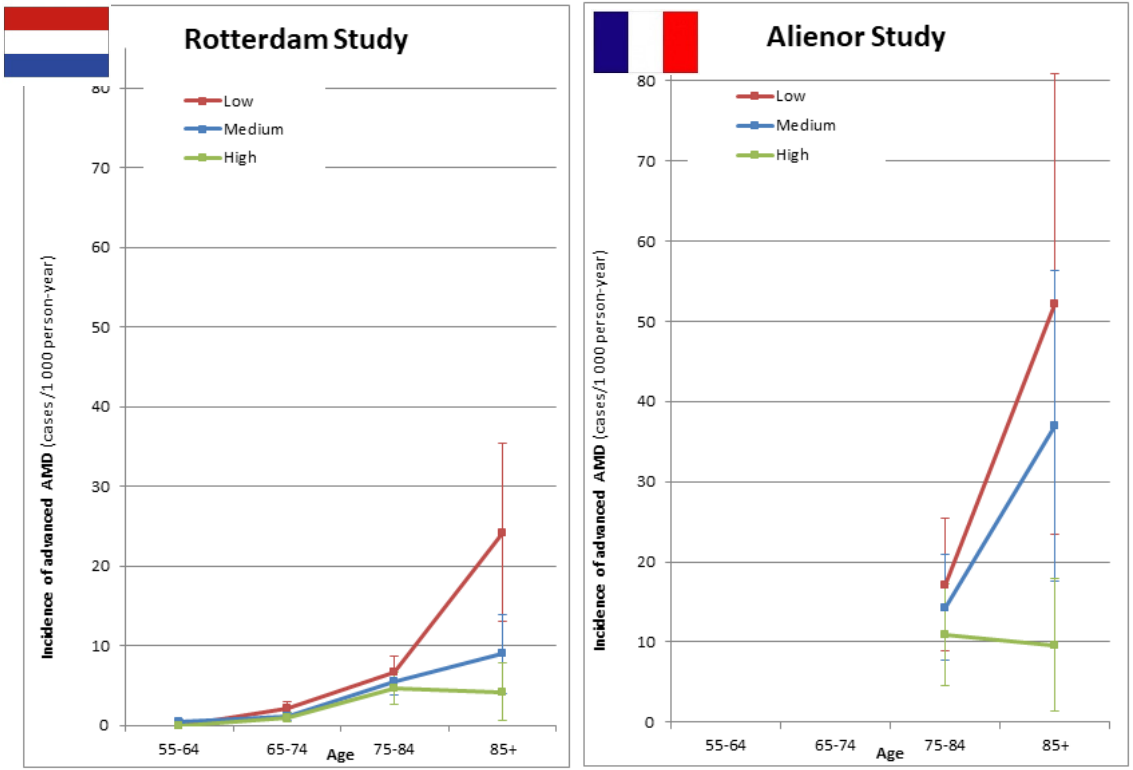
Mediterraans dieet en maculadegeneratie (LMD)

EYE-RISK Consortium; incidente data; N = 4446



Merle et al. Ophthalmology 2019

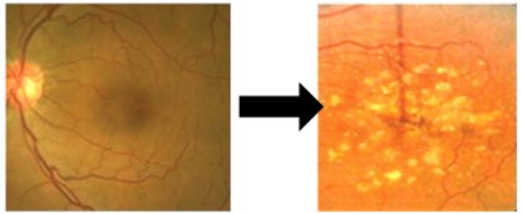
WEINIG BEWEGEN VERHOOGT KANS OP LMD

Physical Activity, Incidence, and Progression of Age-Related Macular Degeneration: A Multicohort Study

MATTHIAS M. MAUSCHITZ, MARIE-THERESE SCHMITZ, TIMO VERZIJDEN, MATTHIAS SCHMID, ERIC F. THEE, JOHANNA M. COLIJN, CÉCILE DELCOURT, AUDREY COUGNARD-GRÉGOIRE, BÉNÉDICTE M.J. MERLE, JEAN-FRANÇOIS KOROBELNIK, BAMINI GOPINATH, PAUL MITCHELL, HISHAM ELBAZ, ALEXANDER K. SCHUSTER, PHILIPP S. WILD, CAROLINE BRANDL, KLAUS J. STARK, IRIS M. HEID, FELIX GÜNTHER, ANNETTE PETERS, CAROLINE C.W. KLAVER, AND ROBERT P. FINGER, ON BEHALF OF THE EUROPEAN EYE EPIDEMIOLOGY (E3) CONSORTIUM

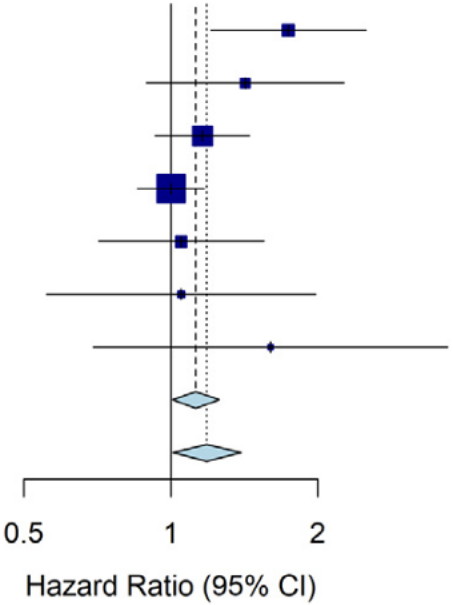
Intermediate AMD (Drusen en RPE changes)

Healthy



Source	HR (95% CI)
GHS	1.74 [1.21; 2.51]
KORA	1.42 [0.89; 2.26]
BMES	1.16 [0.93; 1.45]
RS I-III	1.00 [0.85; 1.17]
POLA	1.05 [0.71; 1.55]
AugUR	1.05 [0.56; 1.98]
Alienor	1.60 [0.69; 3.69]
Total (fixed effect)	1.13 [1.01; 1.26]
Total (random effects)	1.19 [1.01; 1.40]

Heterogeneity: $\chi^2_6 = 9.49$ ($P = .15$), $I^2 = 37\%$



ETEN NEDERLANDERS GEZOND?

Intake of Vegetables, Fruit, and Fish is Beneficial for Age-Related Macular Degeneration

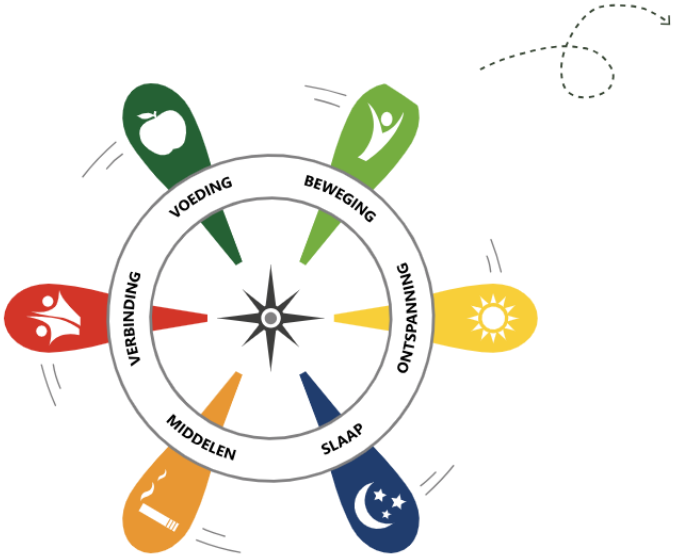
ALEXANDRA P.M. DE KONING-BACKUS, GABRIËLLE H.S. BUITENDIJK, JESSICA C. KIEFTE-DE JONG, JOHANNA M. COLIJN, ALBERT HOFMAN, JOHANNES R. VINGERLING, ELIZABETH B. HAVERKORT, OSCAR H. FRANCO, AND CAROLINE C.W. KLAVER

- Groenten >= 200 gr: 31%
- Fruit 2x/dag: 55%
- Vis 2x/week: 12,5%
- Alle 3 deze aanbevelingen: **3.7%**

WANNEER VERANDEREN MENSEN HUN GEDRAG?

‘TEACHABLE MOMENTS’

- Diagnose van ernstige ziekte
- Slechte test uitslagen
- Hoog genetisch risico
- Besef van eigen aandeel aan ziekte



Leefstijl als medicijn

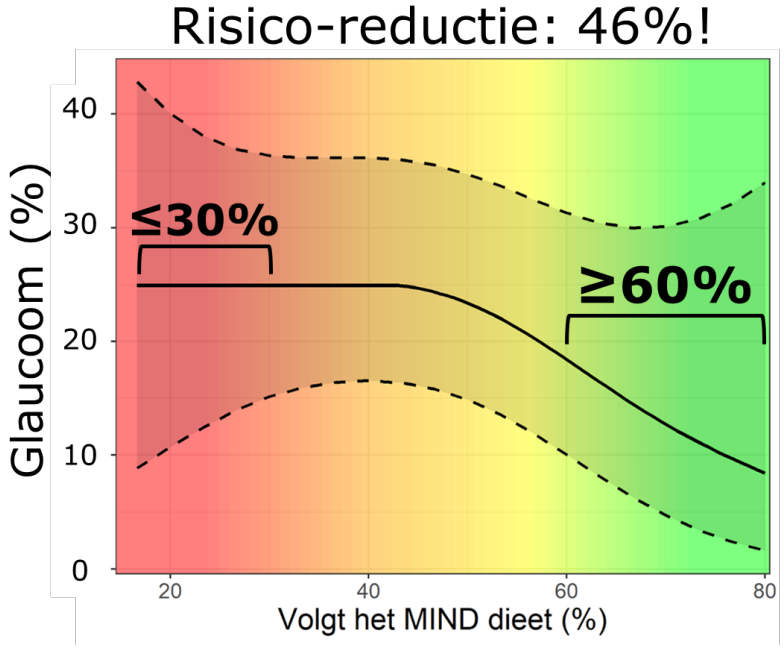
PREVENTIE CATARACT MET LEEFSTIJL

PREVENTIE GLAUCOOM MET LEEFSTIJL

ORIGINAL CONTRIBUTION

MIND diet lowers risk of open-angle glaucoma: the Rotterdam Study

Joëlle E. Vergroesen[1,2] · Tosca O. E. de Crom[2] · Cornelia M. van Duijn[3] · Trudy Voortman[2,4] · Caroline C. W. Klaver[1,2,5,6] · Wishal D. Ramdas[1]

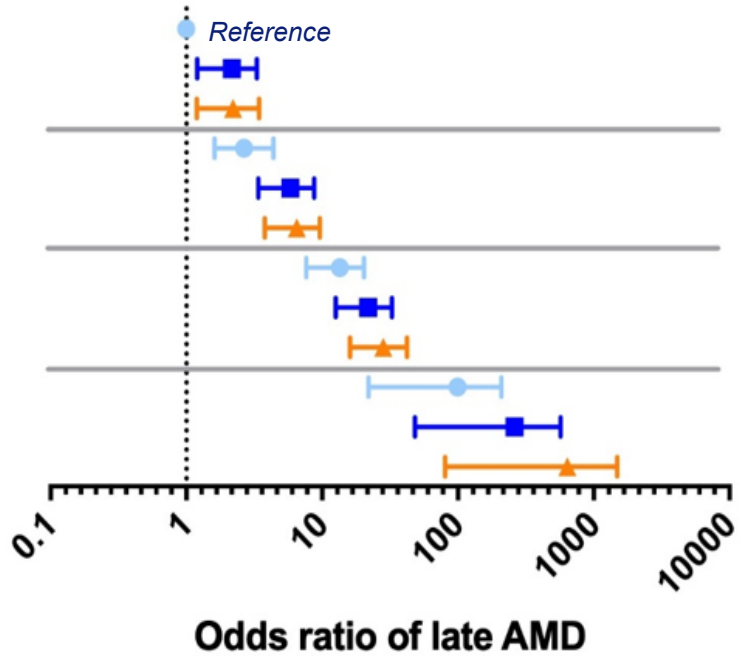


NIET ROKEN, MEDITERRAANS DIET EN LMD

Genetic Risk, Lifestyle, and Age-Related Macular Degeneration in Europe

The EYE-RISK Consortium

Johanna M. Colijn, MD, MSc,[1,2] Magda Meester-Smoor, PhD,[1,2] Timo Verzijden, MSc,[1,2] Anita de Breuk, MD,[3] Rufino Silva, MD, PhD,[4,5] Bénédicte M.J. Merle, PhD,[6] Audrey Cougnard-Grégoire, PhD,[7] Carel B. Hoyng, MD, PhD,[1] Sascha Fauser, MD, PhD,[3,8] Anthomias Cooken, PhD,[10,11] Catherine Creuzot-Garcher, MD, PhD,[12] Hans-Werner Hense, MD, PhD,[13] Marius Ueffing, PhD,[14] Cécile Delcourt, PhD,[7] Anneke I. den Hollander, PhD,[1] Caroline C.W. Klaver, PhD,[1,15,16] for the EYE-RISK Consortium*



- Gezonde leefstijl
- Matige leefstijl
- Slechte leefstijl

Low genetic risk
(GRS < -0.057)

Medium genetic risk
(GRS ≥ -0.057 en < 1.131)

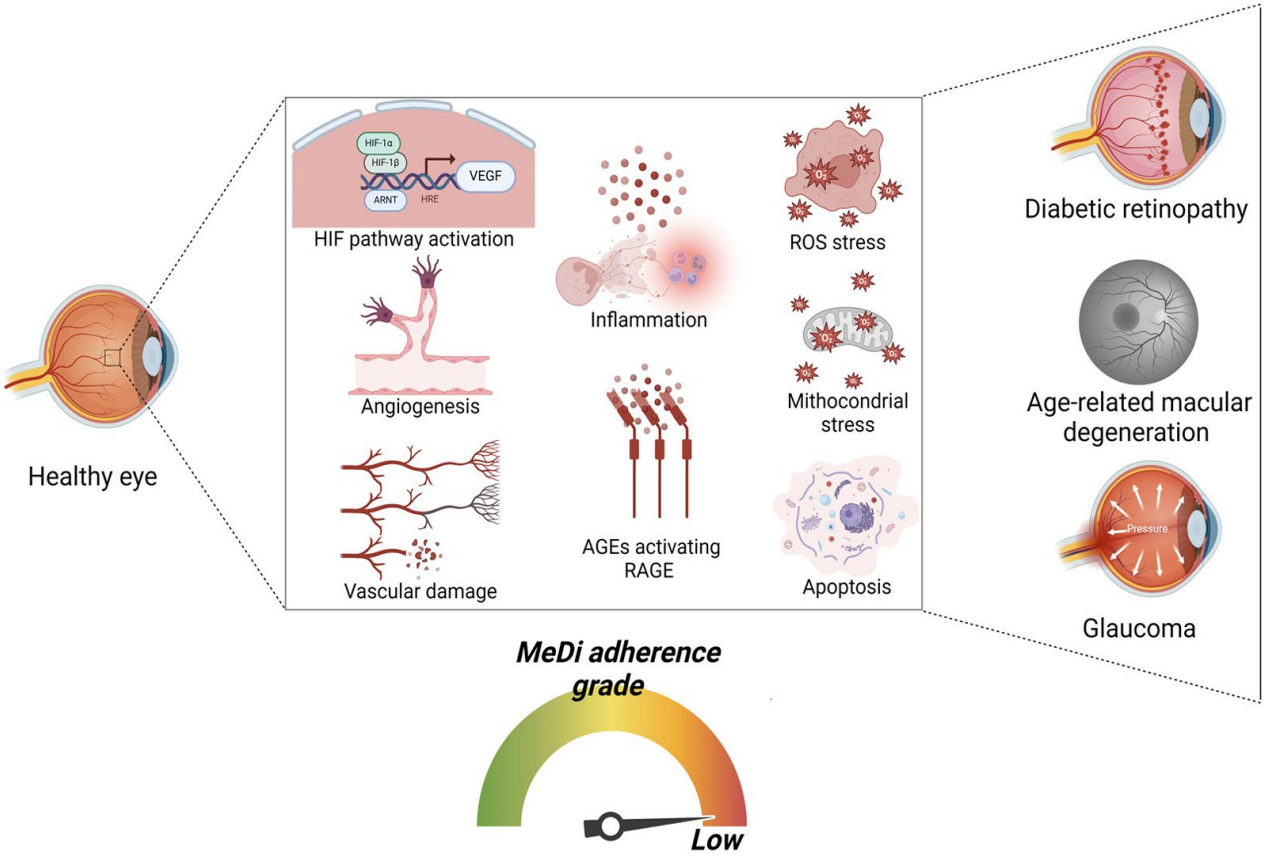
High genetic risk
(GRS ≥ 1.131 en < 3.0)

Very high genetic risk
(GRS ≥ 3.0)

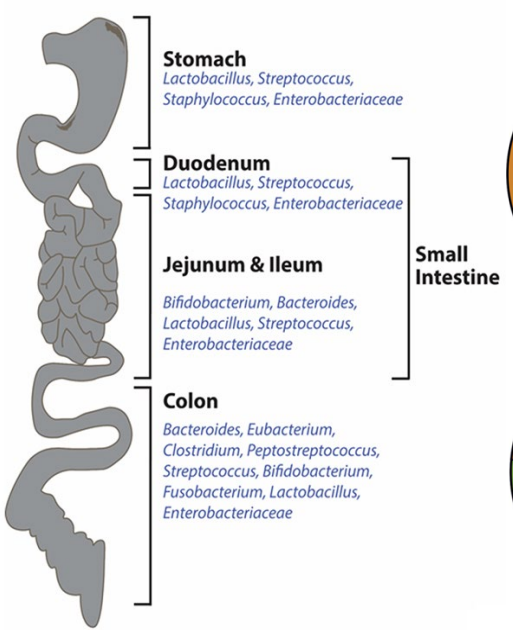
Niet roken en Mediterraans dieet verlagen eindstadium Macula Degeneratie 2-5x!!

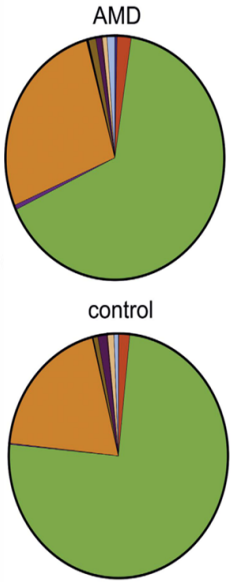
Colijn et al. E3/EYE-RISK consortium; Ophthalmology 2021

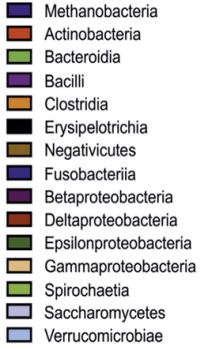
WAT DOET EEN SLECHT DIEET MET HET OOG?

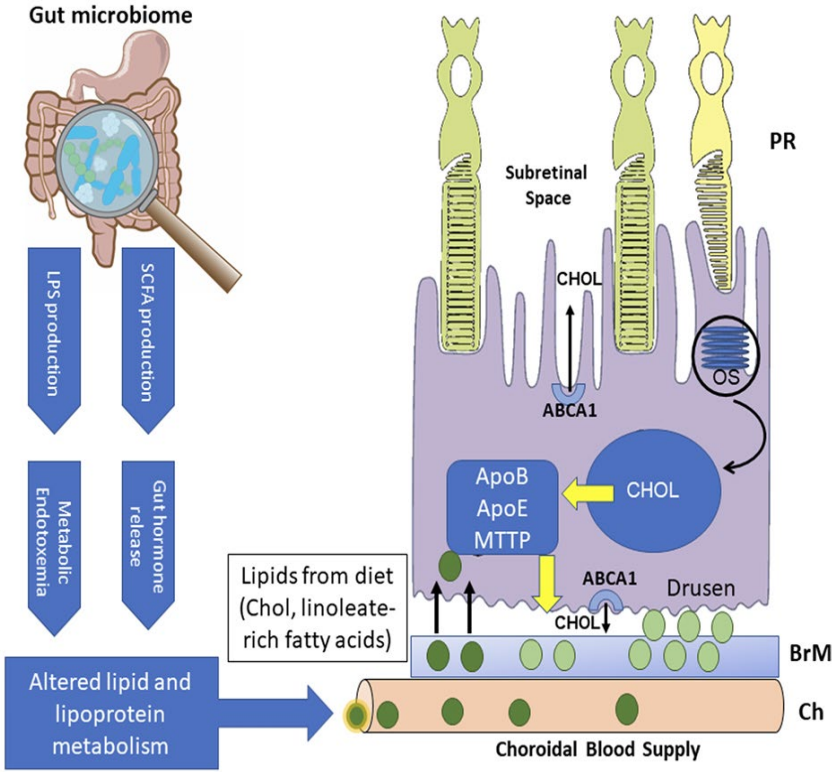


DARM BACTERIEN HEBBEN RELATIE MET OOG









GEZOND DIEET ADVIES VOOR HET OOG

Mediterraans/Mind dieet

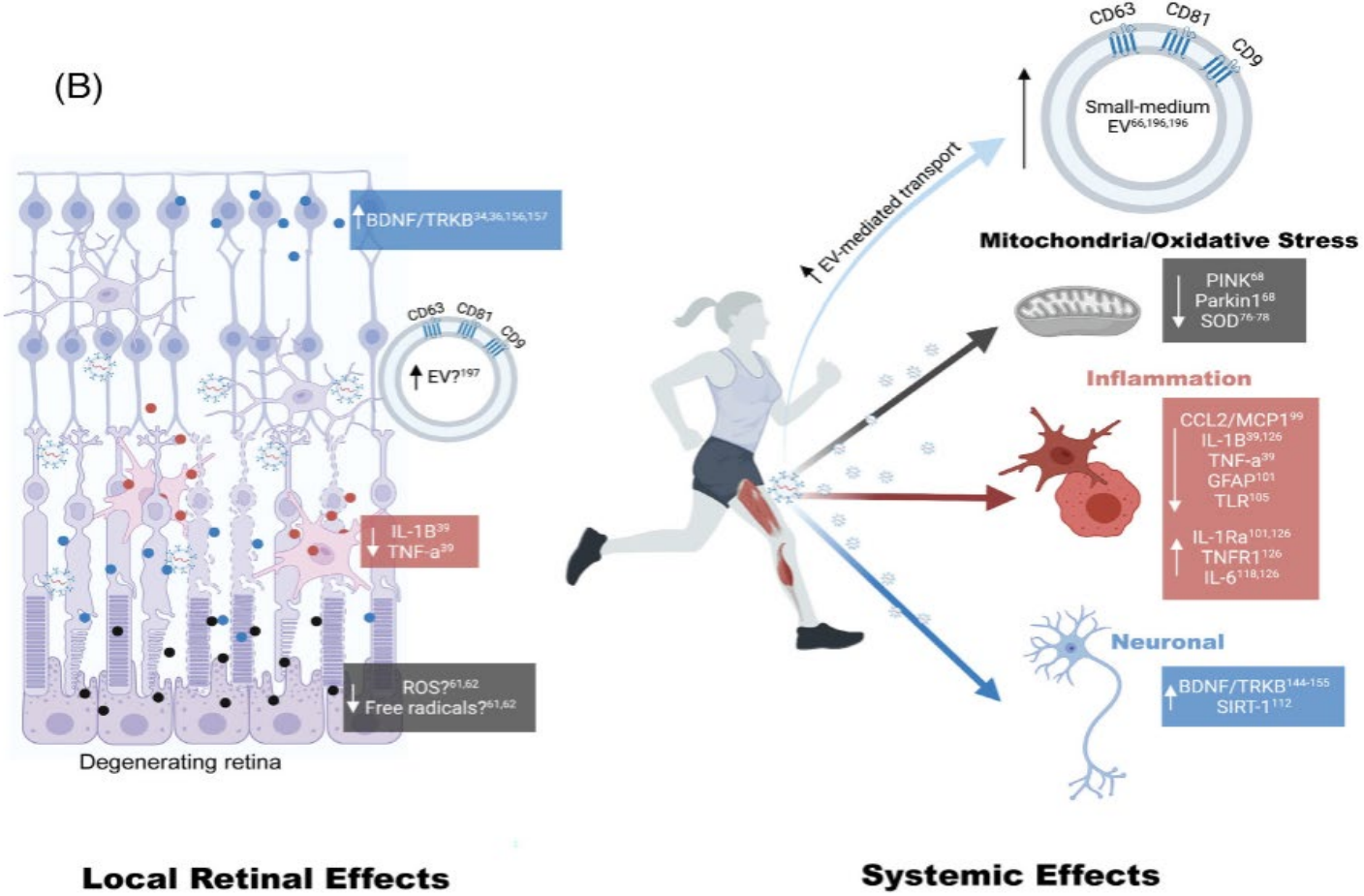
- Groenten >250-400 gram/dag
- Fruit 2-3/dag; bessen 2-3/week
- Vette vis 2x/week
- Noten >90 gr/week
- Olijfolie ipv dierlijk vet

- Geen of weinig:
  rood vlees, gesuikerde dranken, zoetigheid, alcohol

Voedings supplementen

- AREDS2 (lutein, zeaxanthine, zink, vit C, vit E, koper) voor LMD
- Visolie (EPA 330 mg; DHA 250 mg) voor alle oogziekten

WAAROM IS BEWEGEN GOED VOOR HET OOG?



BEWEEG ADVIES

Beweegadvies richtlijn:

Volwassenen en senioren

- Minstens 150 minuten per week matig of zwaar intensieve inspanning, verspreid over meerdere dagen.
- Minstens twee keer per week spier- en botversterkende activiteiten, voor senioren aangevuld met balansoefeningen.
- Voorkom veel stilzitten.

Vuistregel voor het oog:

7-10 uur/week
matige inspanning

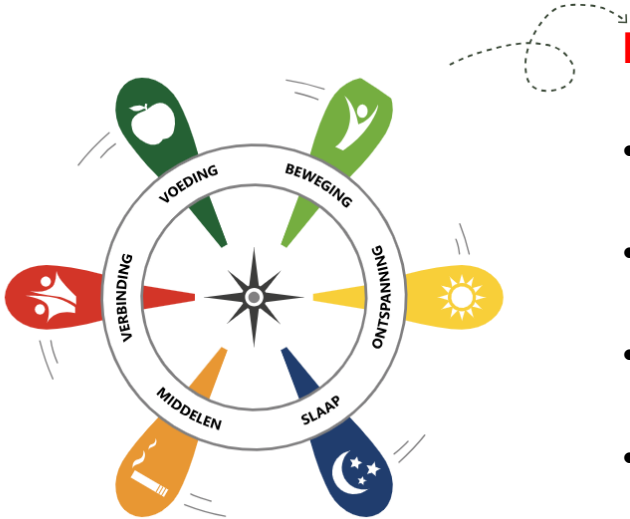
BODY MASS INDEX (BMI) ADVIES

BMI grenzen 19-69 jaar	Betekenis
Lager dan 18,5	Ondergewicht
Vanaf 18,5 tot 25	Gezond gewicht
Vanaf 25 tot 30	Overgewicht
30 en hoger	Ernstig overgewicht (obesitas)

$$BMI = \frac{gewicht}{lengte^2}$$

Zorg voor een BMI <25

CONCLUSIE LEEFSTIJL ALS MEDICIJN



Leefregels ter voorkoming van ouderdoms oogziekten:

- Niet roken
- Gezond gewicht (BMI<25)
- Dieet rijk in groenten, fruit, bessen, vis, olijfolie
- Vermijden van rood vlees en gesuikerde dranken
- Matig met alcohol
- Bewegen >= 7 uur/week

AMD-life

Erasmus MC University Medical Center Rotterdam

oog het oogziekenhuis rotterdam the rotterdam eye hospital

combined ophthalmic research rotterdam

uitzicht

Rotterdamse Stichting Blindenbelangen VITAMINENOPRECEPT

Caroline Klaver

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Sheila de Koning-Backus

Jessica Kiefte-de Jong

Marianne van Veen

Corina Brussee

Irene van Zeijl

Amal Hamimida

Annemiek Krijnen

Joelle Vergroesen

Eric Thee

Jeroen Vermeulen

Janine Burgers

Stefan Kraaijeveld