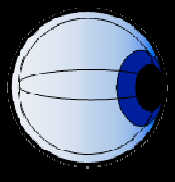
Age related eye diseases—Cataract, Glaucoma, Macular Degeneration, and Diabetic Retinopathy



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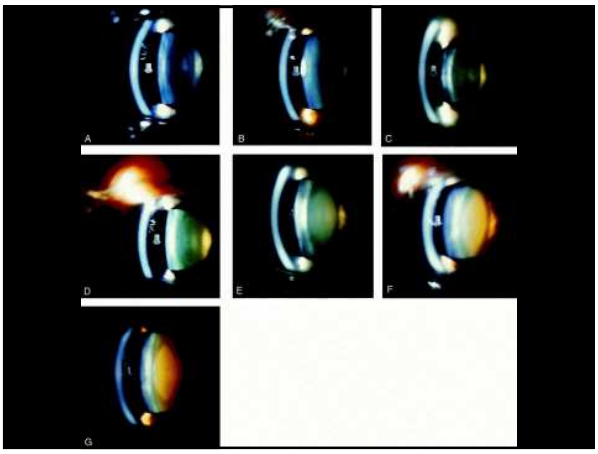
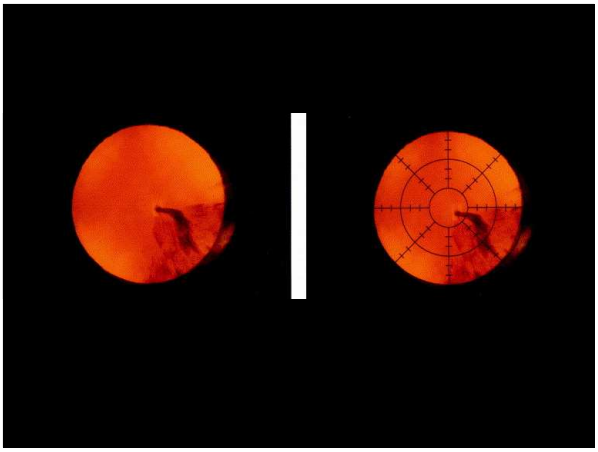
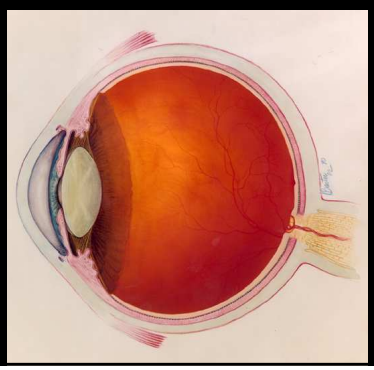


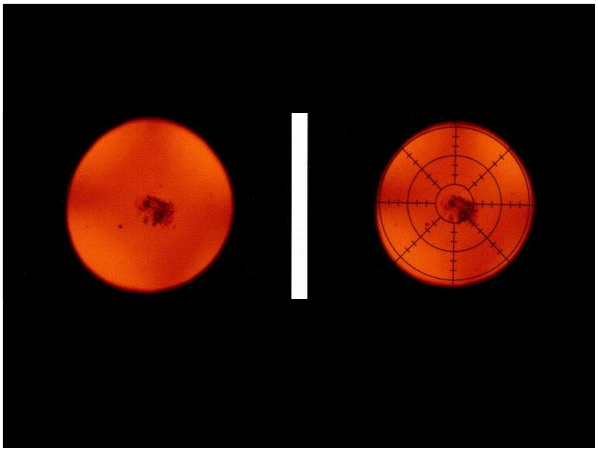
Age related eye diseases

- What is it?
- How is it detected?
- How do we monitor and treat it?
- What is the prognosis?



What is cataract?

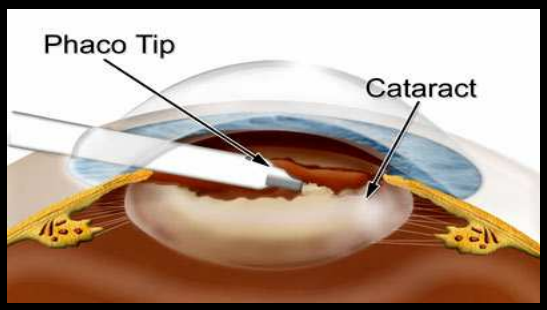




What causes cataract?

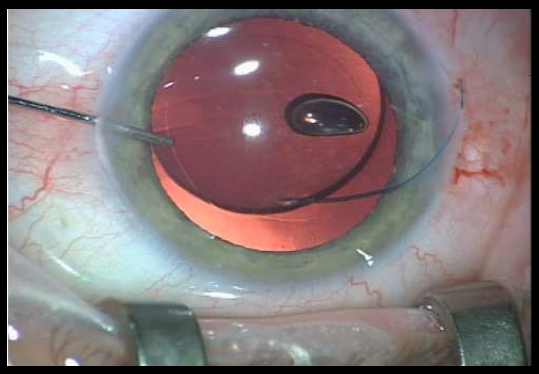
- Age
- Diabetes
- Smoking
- Alcohol use
- Trauma
- Sun exposure—possibly a small role

How do you treat cataract?



Do vitamins help prevent cataract?

- Age Related Eye Disease Study Report #9
- Vitamins A, C, and E
- No effect
- Suggestion: multivitamin may help



How is cataract detected?

- Loss of sharpness
- Loss of color richness
- Problems in bright light or with glare
- Problems driving at night
- Regular yearly eye exam

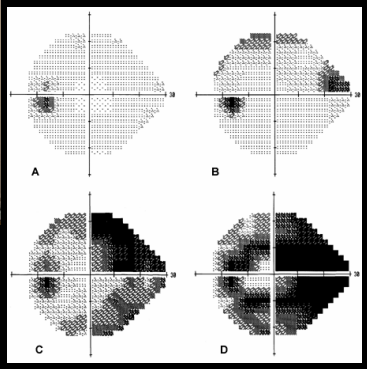
Monofocal

versus

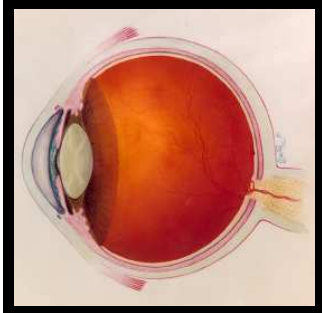
multifocal

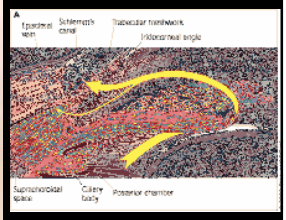
Success rates and complications

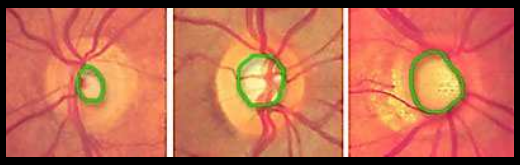
- Bleeding
- Infection
- Retinal detachment
- Lens dislocation
- Secondary cataract or posterior capsule opacification



Glaucoma: what is it?





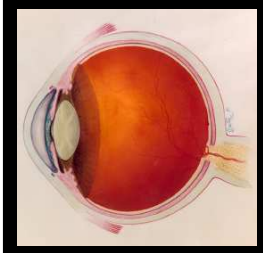


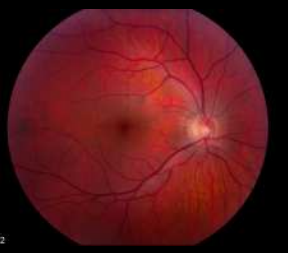
Who is at risk for glaucoma

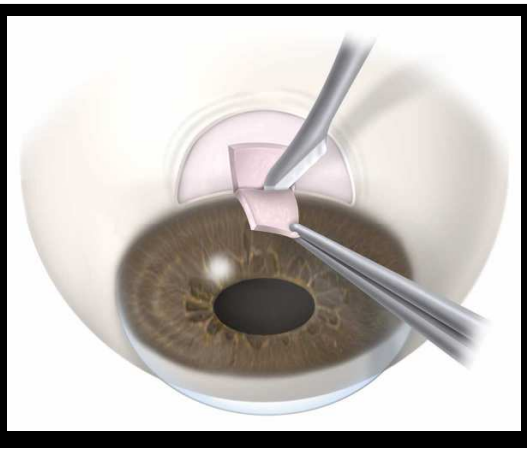
- Age over 60 years
- African American or Hispanic American
- Family history
- Steroid use
- Previous eye trauma
- Diabetes
- Hypertension
- Previous eye trauma

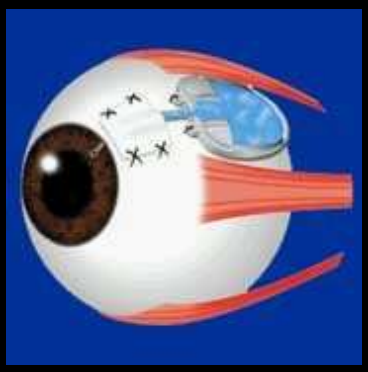
How do we treat glaucoma?

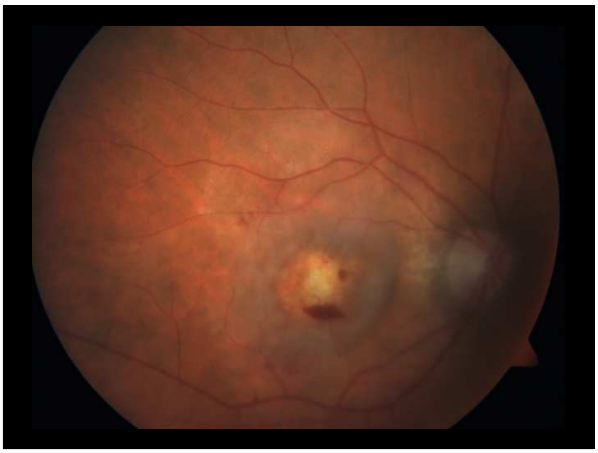
Macular degeneration: what is it?





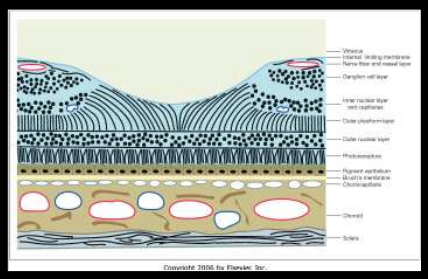






Grading scale

- Early dry
- Intermediate dry
- Advanced dry
- Advanced wet



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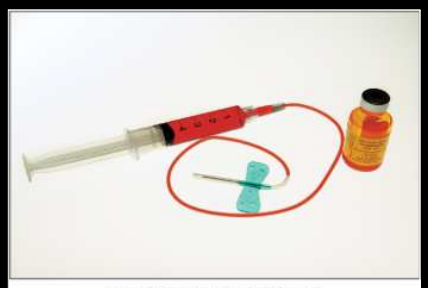

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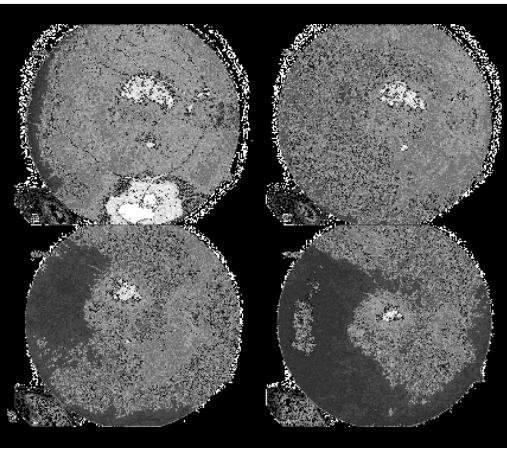

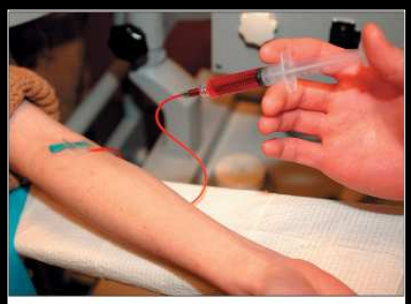

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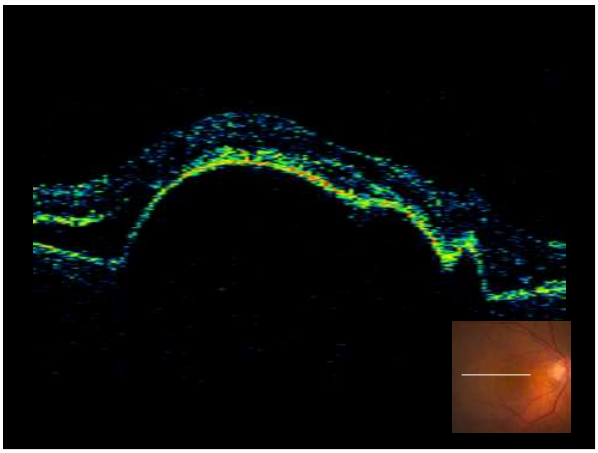
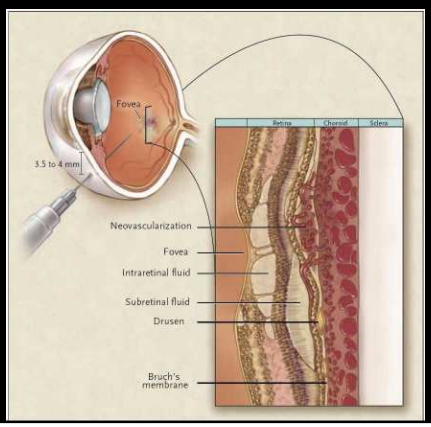
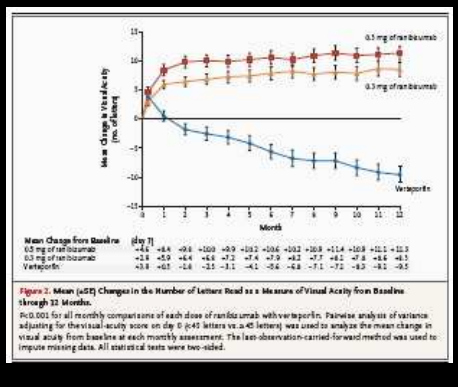
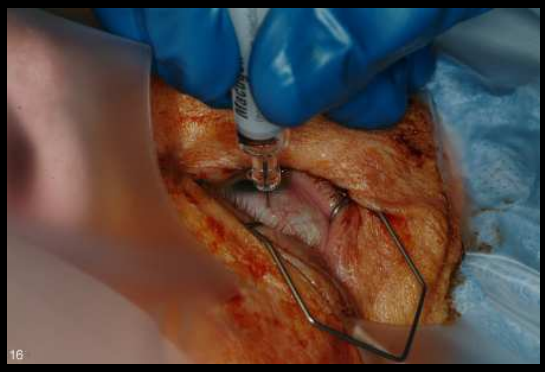








Avastin	Lucentis
FDA approved for colon cancer	FDA approved for macular degeneration
Inject every 6 weeks	Inject every 4 weeks
Small risk of stroke or heart attack	Small risk of stroke or heart attack

Supplement Facts

Serving Size: 4 tablets daily; 2 in the morning, 2 in the evening taken with meals

Contents	Two tablets Amount	Two tablets % of Daily Value	Daily Dosage (4 tablets) Amount	Daily Dosage (4 tablets) % of Daily Value
Vitamin A (beta-carotene)	14,320 IU	286%	28,640 IU	573%
Vitamin C (ascorbic acid)	226 mg	376%	452 mg	753%
Vitamin E (dl-alpha tocopheryl acetate)	200 IU	666%	400 IU	1333%
Zinc (as zinc oxide)	34.8 mg	232%	69.6 mg	464%
Copper (cupric oxide)	0.8 mg	40%	1.6 mg	80%

Eye Vitamins

Diabetic retinopathy

Smokers— no Vitamin A

Supplement Facts

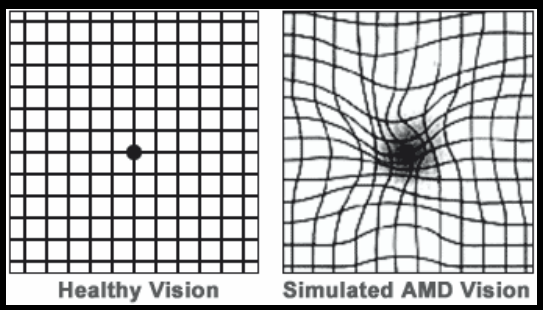
Serving Size: 2 Soft Gel daily; 1 in the morning, 1 in the evening taken with meals

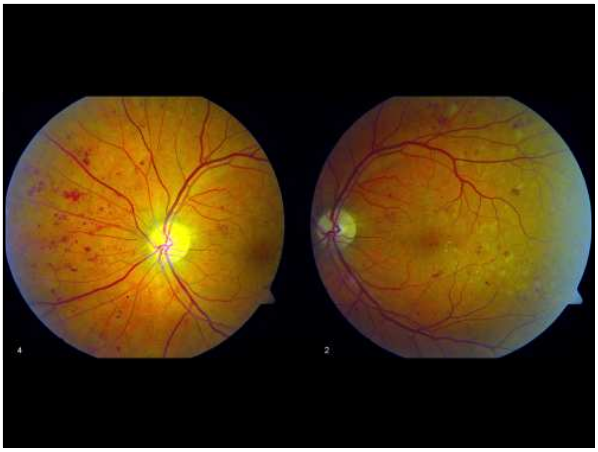
Contents	Daily Dosage (2 Soft Gels)	% of Daily Value
Vitamin C (ascorbic acid)	452 mg	753%
Vitamin E (dl-alpha tocopheryl acetate)	400 IU	1333%
Zinc (as zinc oxide)+	69.9 mg	464%
Copper (as cupric oxide)	1.6 mg	80%
Lutein	10 mg	+ +

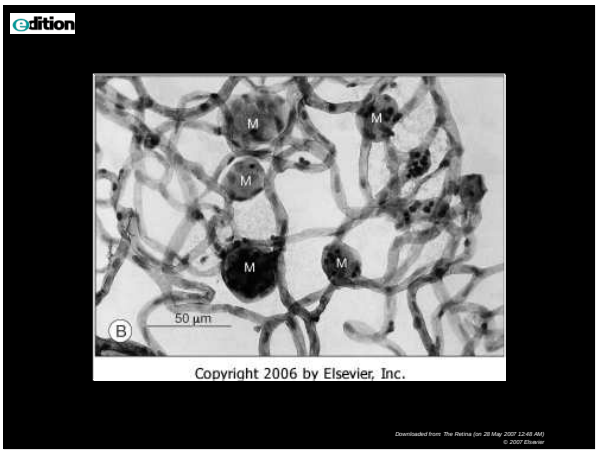
+ Zinc Oxide is the most concentrated form of zinc and contains more elemental zinc than any other zinc salt (zinc sulfate or zinc acetate).

++ Daily value not established

Amsler Grid



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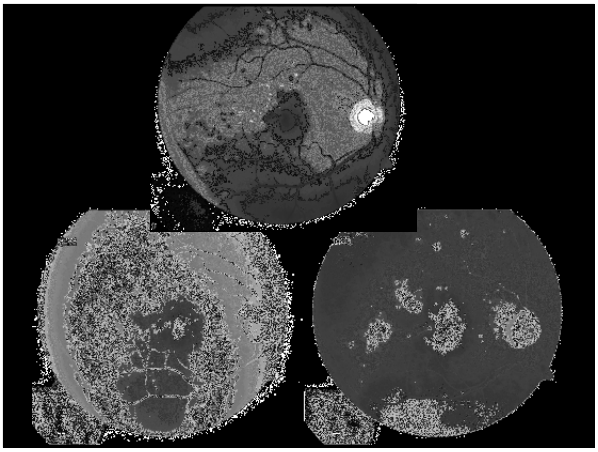
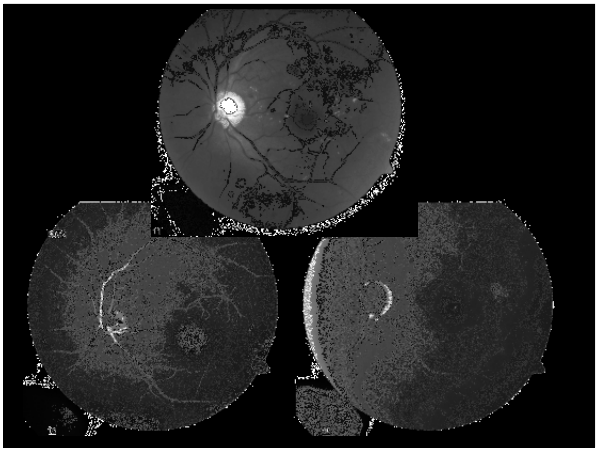
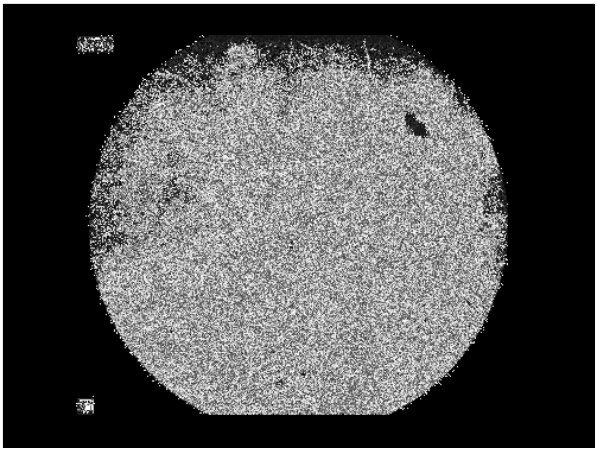
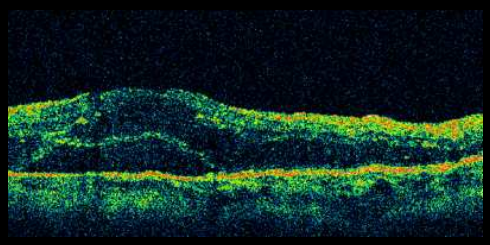


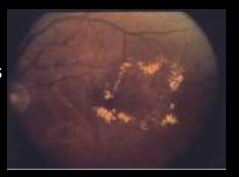


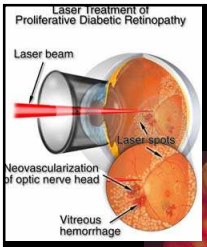




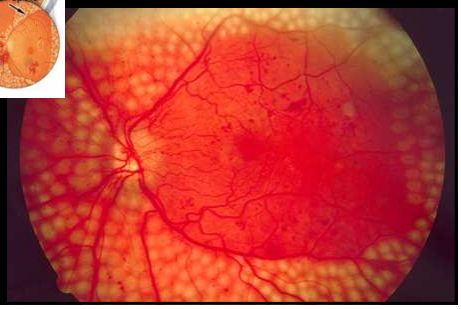
Macular edema grade

- Present or absent
- If present, is it
  - Clinically significant-> recommend focal laser
  - Not clinically significant
  - ->observe every 2-3 months



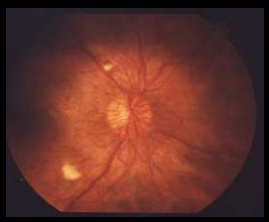


Scatter laser

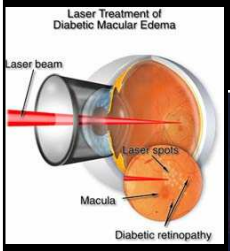


Retinopathy Grade

- Mild
- Moderate
- Severe
- Proliferative-> scatter or panretinal laser



Focal laser



Off label treatments

- Steroid injection
- Avastin injection

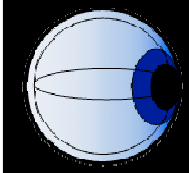
Take care of yourself

- Blood sugar
- Blood pressure
- Cholesterol
- Weight

Vitrectomy surgery

- Vitreous hemorrhage
- Tractional retinal detachment from scar tissue buildup on retina

Age related eye diseases—Cataract, Glaucoma, Macular Degeneration, and Diabetic Retinopathy



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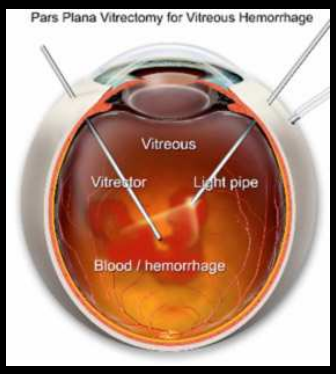

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