

Ⓐ Drug Used in Myasthenia Gravis.

DEPTH OF BIOLOGY

Ⓑ Drug Used in & Glaucoma.

Ⓐ Drug Used in Myasthenia Gravis.

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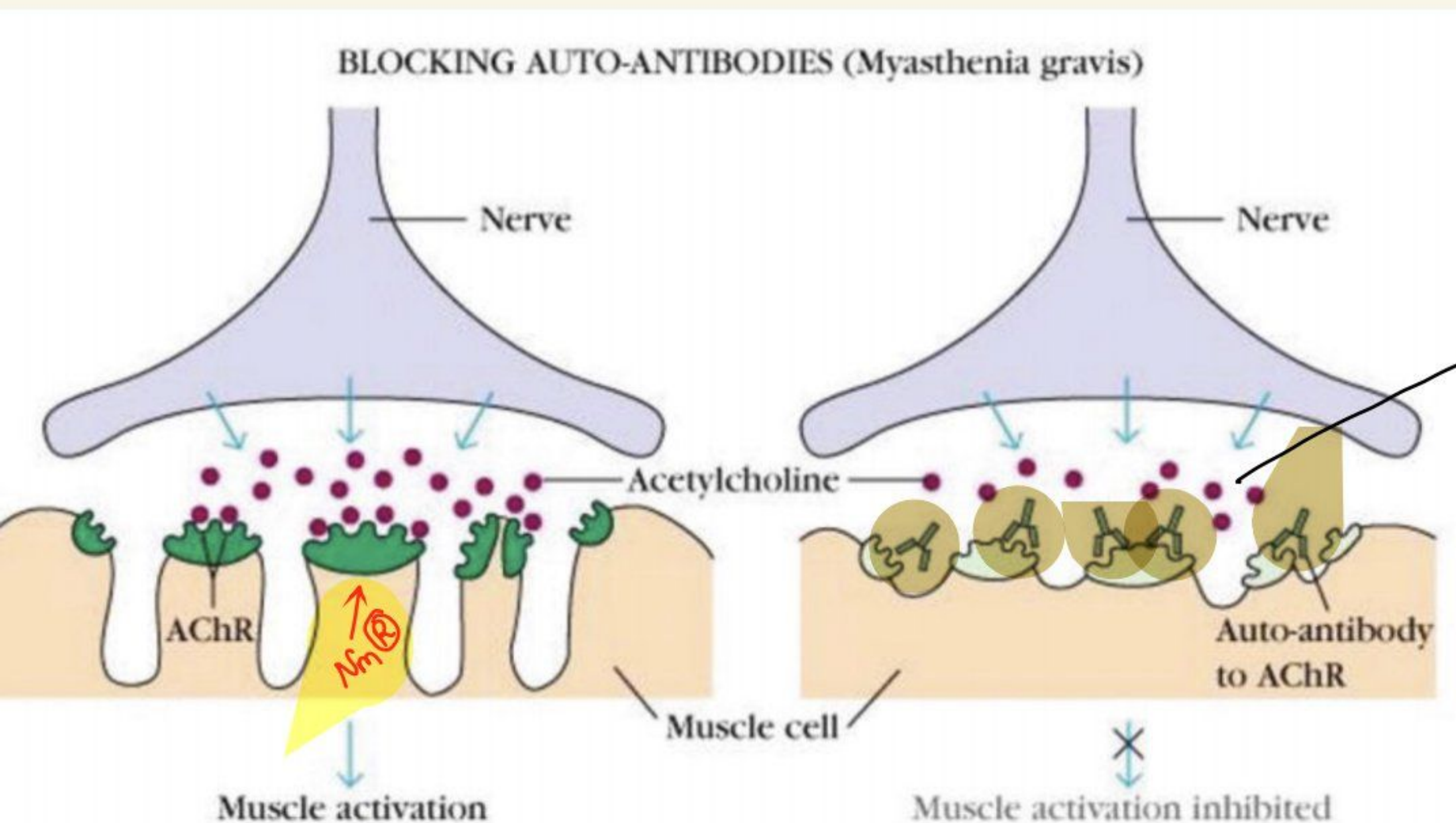
A weakness and rapid fatigue of muscles under voluntary control.

The condition is caused by a breakdown in communication between nerves and muscles.

Myasthenia Gravis is Auto Immune disorder.

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A condition in which the body's immune system mistakes its own healthy tissues as foreign and attacks them



Ach Not bind on Ⓐ
bcz. Ⓐ block by Our Own Antibodies
Relaxation.



SYMPTOMS:

- The first noticeable symptom is weakness of the **eye muscles**, difficulty in swallowing and slurred speech may also be the first signs.
- Muscles that control eye and eyelid movement, facial expressions, **chewing, talking and swallowing** becomes weaker.
- The muscles that control **breathing** and neck and limb movements can also be affected.

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Treatment

Mechanism of Action

① $Ach \uparrow \uparrow \uparrow$
 \rightarrow more $Ach \uparrow \uparrow$ \rightarrow More chance of Binding with $Nm(A)$

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② Inhibit the enzyme
Cholinesterase $\rightarrow Ach \uparrow \uparrow \uparrow$
 example = Neostigmine.

\Downarrow
 More Contraction.

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③ Immunosuppressant is Used \Rightarrow Eg \rightarrow Cyclosporin-A, Methotrexate, Corticosteroid

As, we know Myasthenia Gravis is AutoImmune disorder.

Antibodies less bind on
Nm (R) More Ach bind



More Contraction.

We suppress the Immune
System with the help of
Immunosuppressant

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④ Plasma Exchange \rightarrow Antibodies \downarrow

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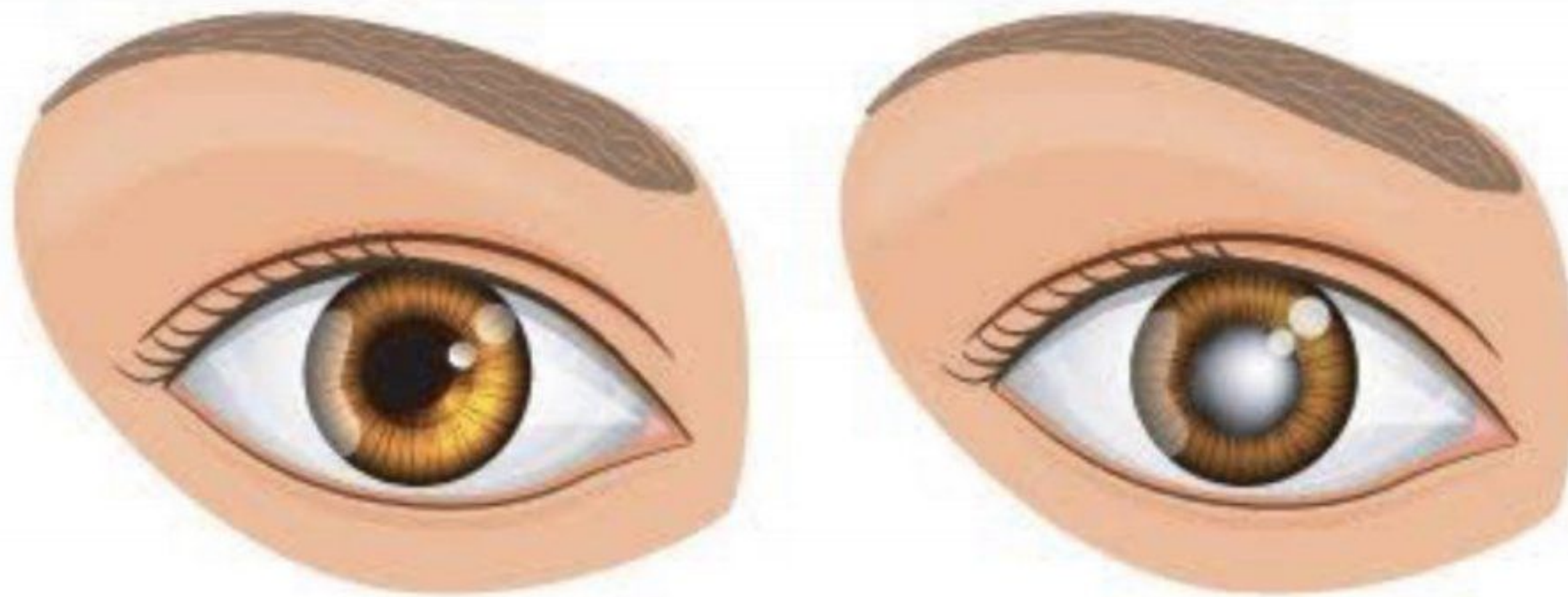
Nm (R) More
bind with Ach



More Contraction

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② Glaucoma (drug Used).

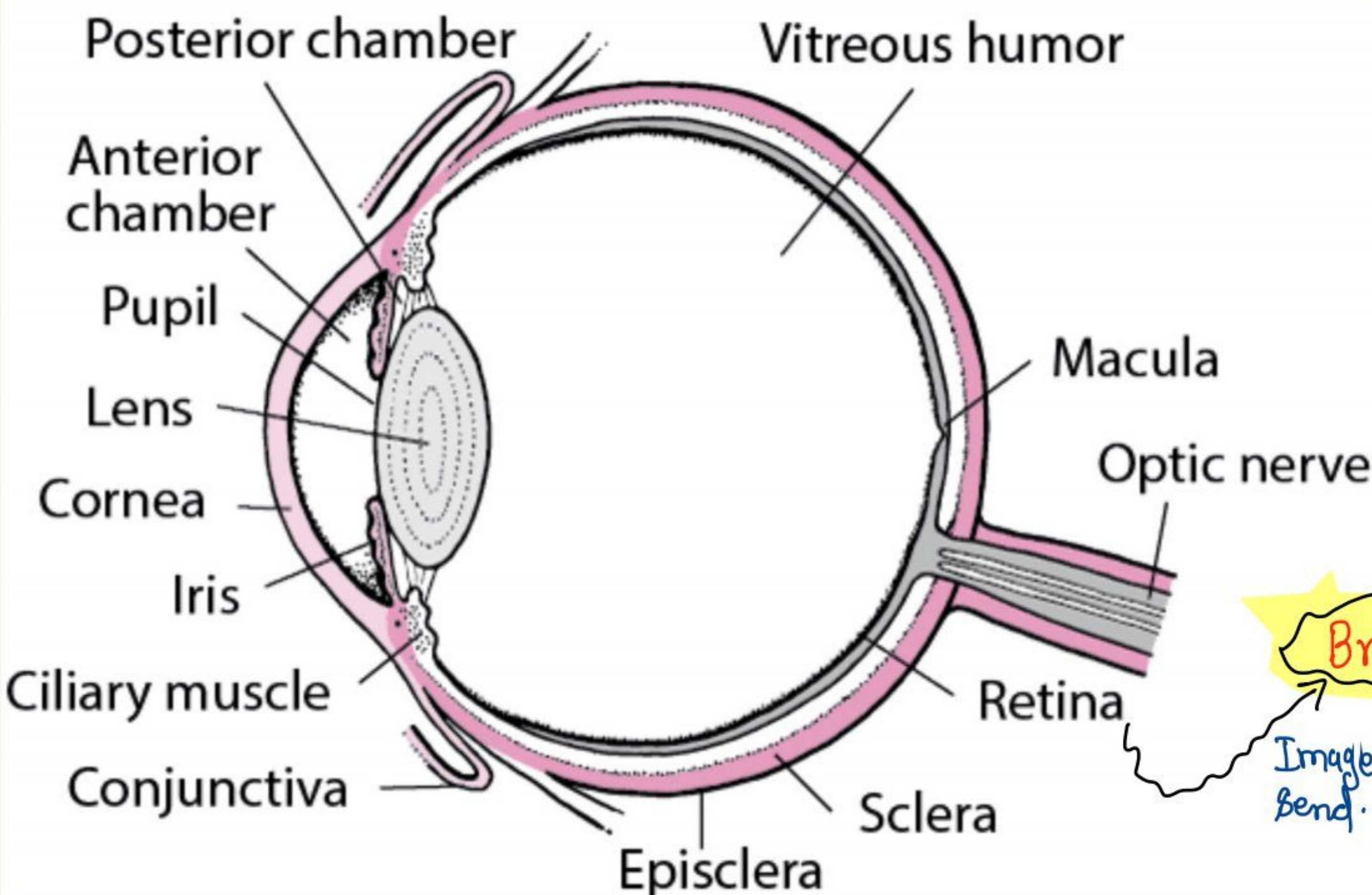


healthy eyes

glaucoma

The nerve connecting the eye to the brain is damaged, usually due to high eye pressure.

Lead to
Blindness
& Loss of Vision



Brain (CNS)

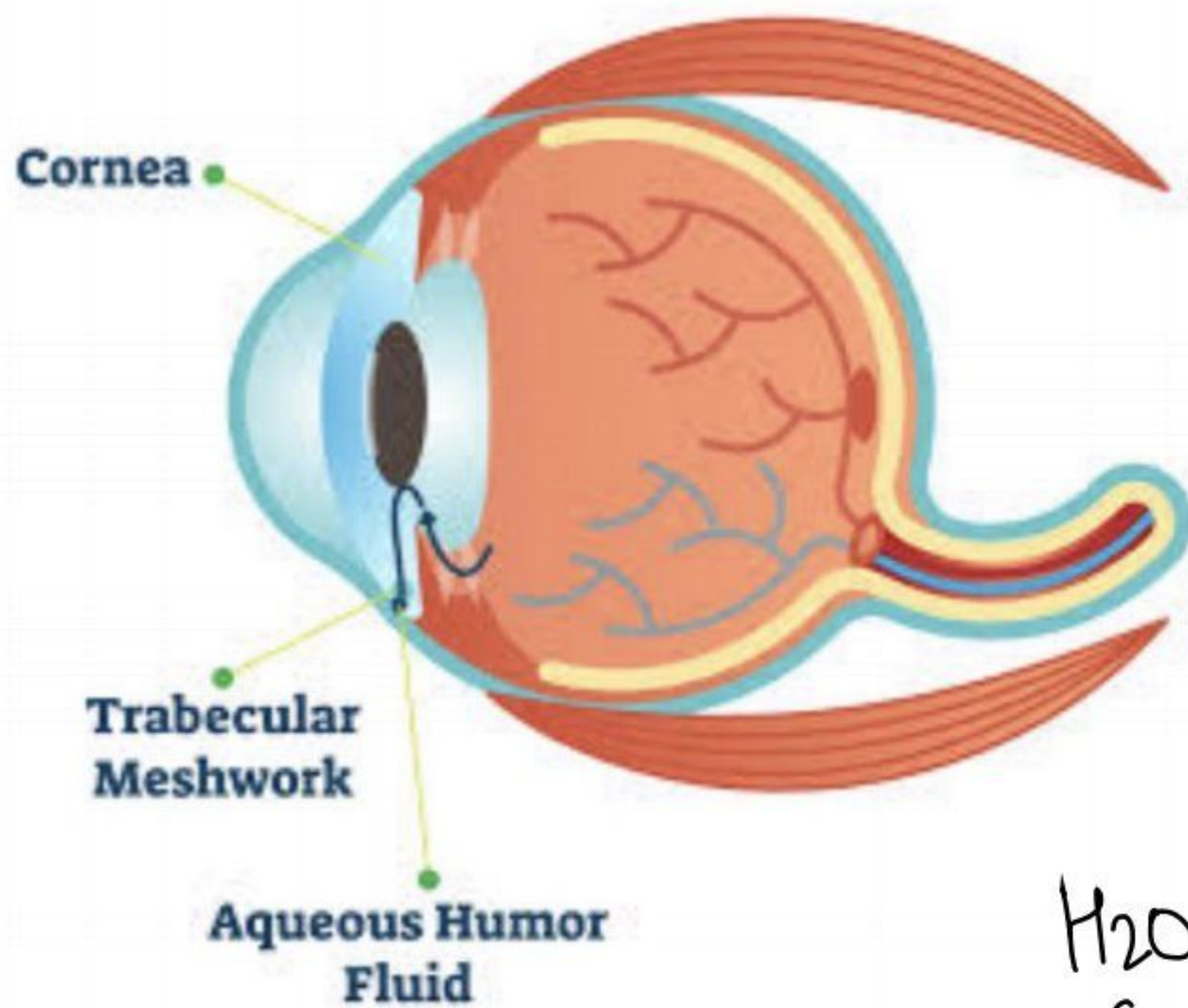
Image Send.

⇒ ~~By Nerve~~

This Nerve damage
in Case of Glaucoma

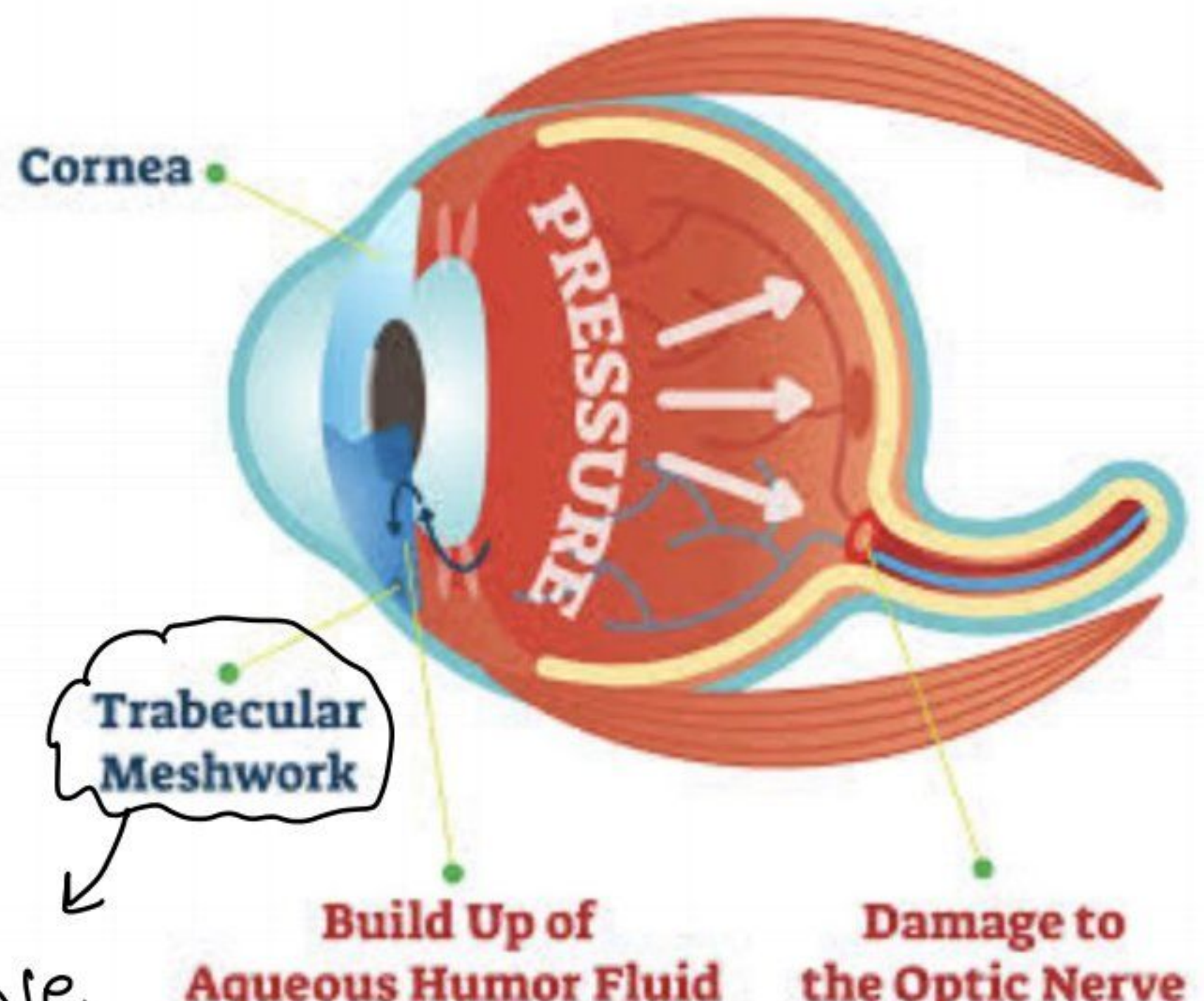
GLAUCOMA

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NORMAL EYE

H₂O remove from Eye.



GLAUCOMA

Why Glaucoma

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⑨

Aqueous Humor ↑↑↑

Create Pressure (Lens Wide)

due to this drainage ↓↓se.

lead to ↑↑se Pressure in Vitreous Chamber.

Due to this Optic Nerve damage.

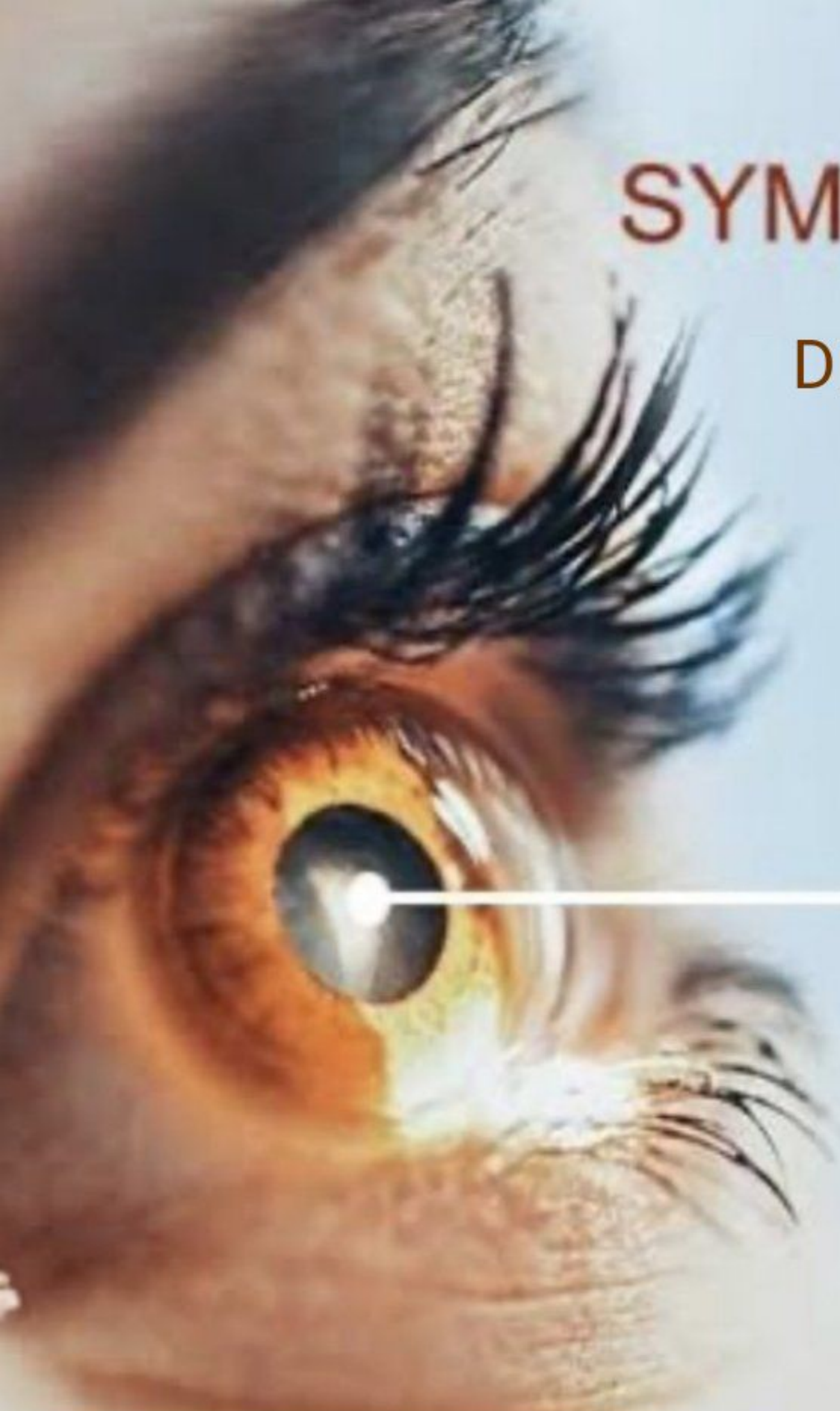
Glaucoma (Image Not formed in Brain)

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Intra ocular pressure
721mmHg

SYMPTOMS OF GLAUCOMA

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Blurry vision

Redness of the eye

Eye/head pain

Nausea or vomiting

Vision rainbows or halos

Glaucoma Risk Factors

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Being over 60 years old



Being of African, Asian or Hispanic descent



Having a family history of glaucoma



Being very nearsighted



Having a thin central cornea



Long-term steroid use

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Having conditions such as heart disease, diabetes and hypothyroidism



Having high blood pressure

Treatment

① IOP ↓↓

Prodⁿ of Aq^o Humor ↓↓

② Drainage ↑↑
of Aq^o Humor

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① α-Agonist → IOP ↓↓ (By ↑↑ drainage)

↓
drug = Apraclonidine.

② β-blocker → IOP ↓↓ (formation of aq^o Humor ↓↓)

↓
drug = Timolol.

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③ Prostaglandin Analogues ⇒ Work same as α-Agonist.
IOP ↓ (by ↑↑ drainage)

④ Carbonic Anhydrase Inhibitor ⇒ ↓↓ Aqueous Humor formation
eg → Acetazolamide.

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