

A close-up, high-contrast image of a human eye, focusing on the iris and pupil. The eye is looking directly at the camera. The image is dark, with the eye's features highlighted in a golden-yellow color.

CRESP

Cadet Refractive Eye
Surgery Program

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GOALS of this Brief

Refractive Surgery Options:

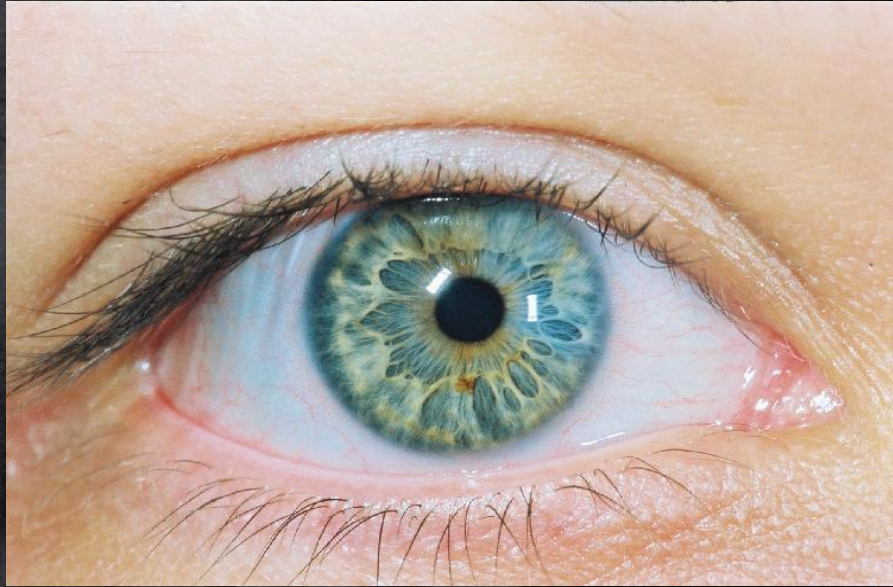
- PRK
- LASIK
- ICL Surgery (ACTIVE DUTY ONLY)

PREPARATION
EXPECTATIONS

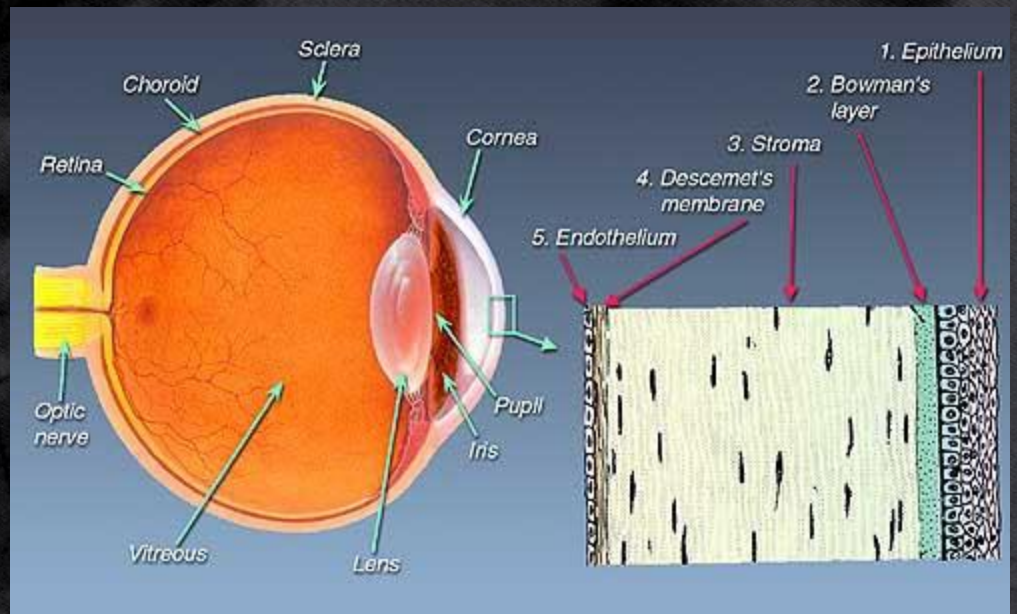
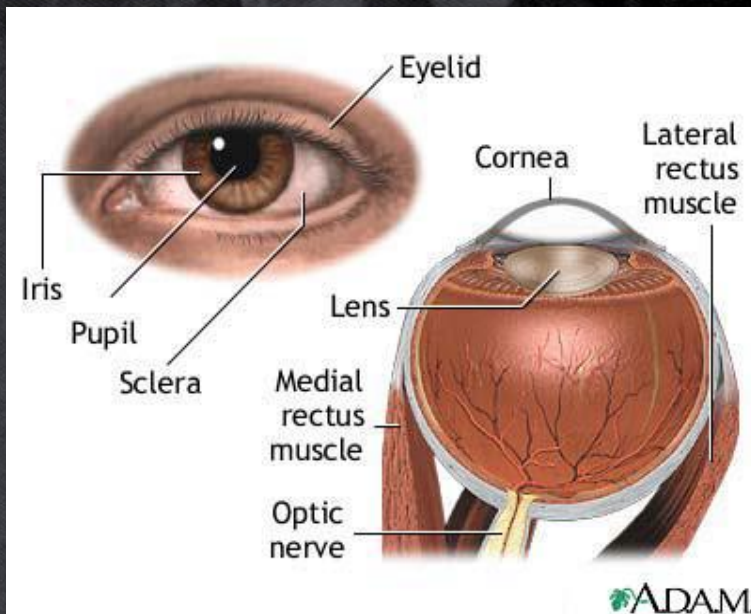
Purpose of Refractive Surgery

- Enhance Soldier Readiness
 - Reduce Need for Corrective Lenses
- *Eliminate need for Eyeglasses?* **NO!**
 - Sunglasses
 - Protective Eyewear
 - Reading Glasses when Older
 - Weak Specs for Sharper Image

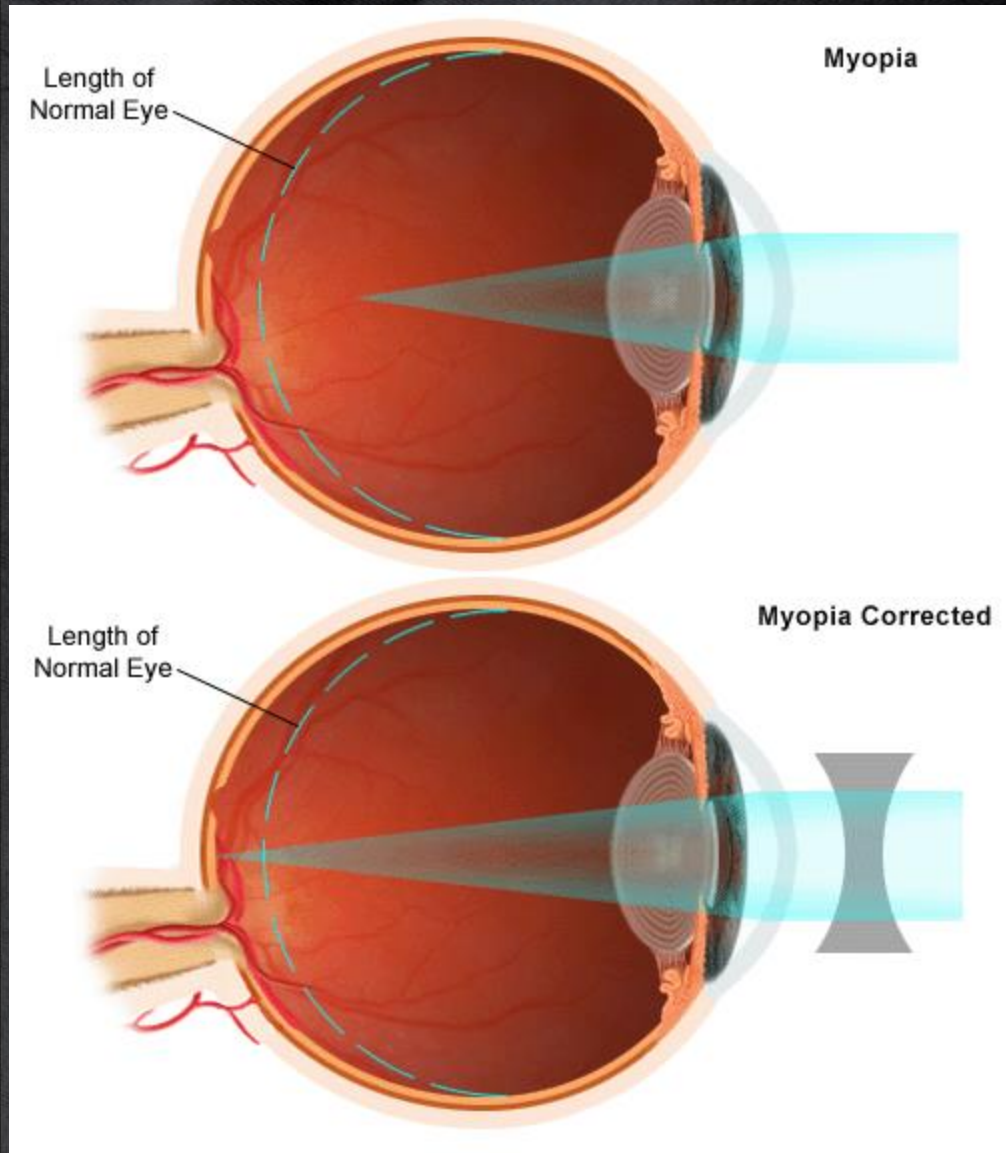
The EYE's CORNEA



- Epithelium
- Bowman's Layer
- Stroma
- Descemet's Membrane
- Endothelium

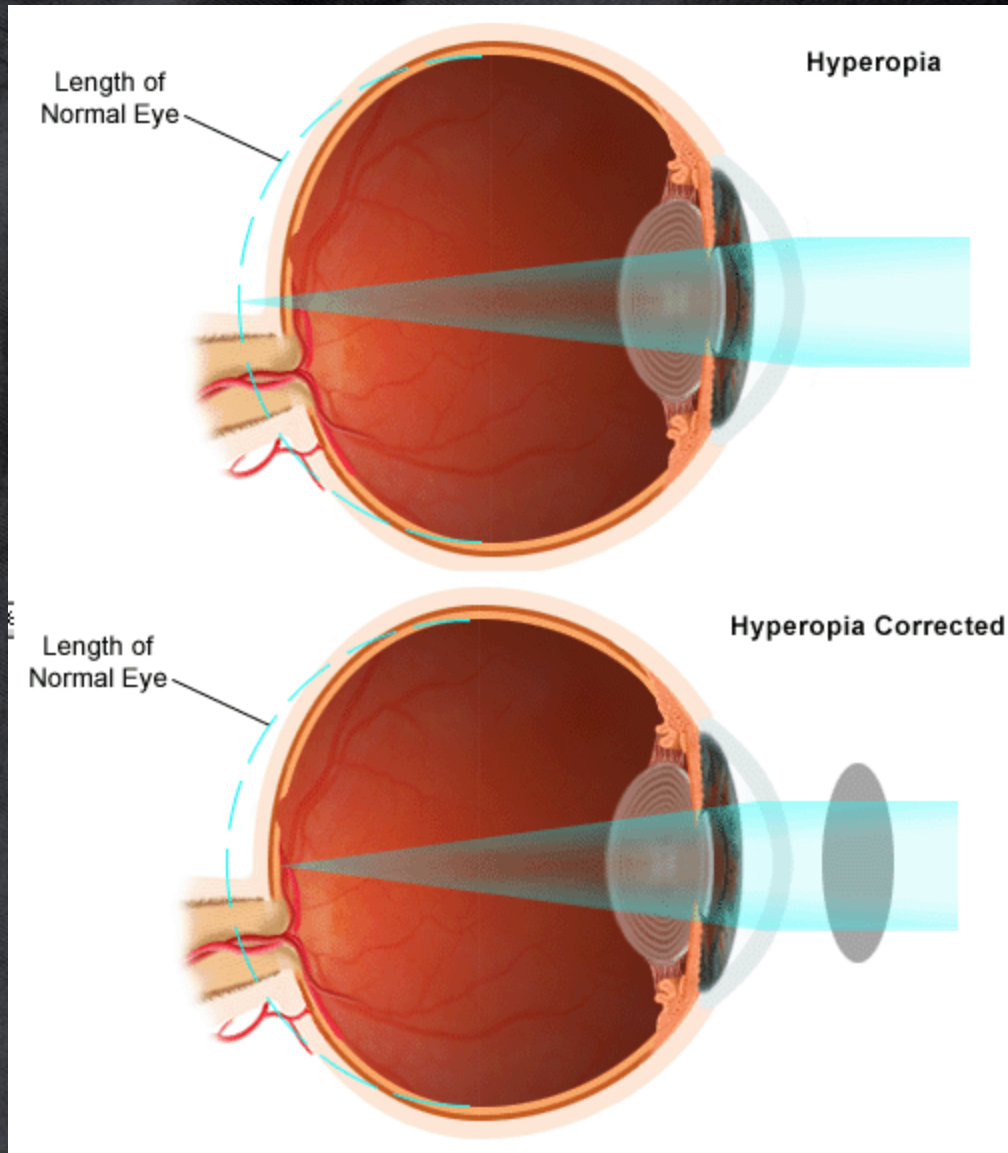


Myopia (Near-Sighted)



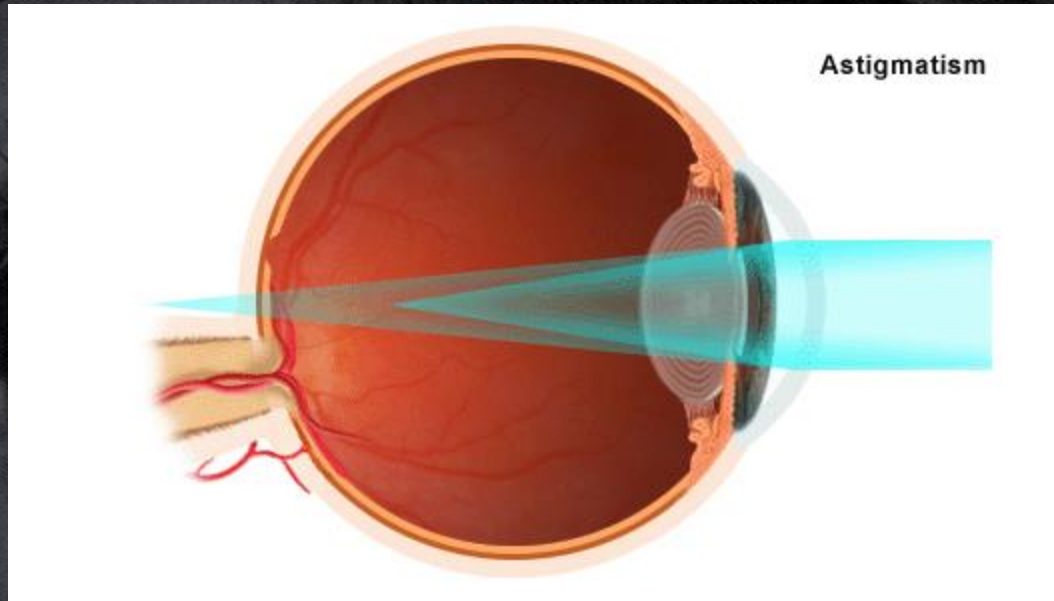
- Long Eyes
- Focus Image *in front* of the Retina

Hyperopia (Far-Sighted)



- Short Eyes
 - Focus Image *behind* the Retina

Astigmatism



- Ovoid Cornea
 - Multiple Focal Points
 - No Single Focal Point

PRK & LASIK

- Irreversible LASER Procedures
- Each has Surgical Risks
- 5-10% will not qualify PRK/LASIK
- 5-10% may need additional surgery
- Realistic Expectations...

Nothing is Guaranteed!

PRK/LASIK

Risks & Rewards

- Happy $>90\%$
 - 20/25 or Better Visual Acuity
 - Quality may be different from Spectacles
- Glasses/Contacts/Re-Tx $<10\%$
- Blurry Vision $\sim 1\%$
- Lose Vision / Eye $\sim 1:100,000$

Military Criteria

- CO or TAC Permission
- No Adverse Actions pending
- Cadets: Cows & Firsties*
- PRK & LASIK waivers for:
 - Aviation
 - SCUBA &/or HALO
 - Special Forces

*Plebes & Yuks may still initiate the process.

PROFILE

- Non-Deployable
- PRK: 3 Months
- LASIK: One Month
- ICL Surgery: One Month
- Cadets
 - No Boxing/Combative x1mo

Contact Lenses

- STOP wearing your Contacts!
- Why?
 - Reshape your Cornea
 - Inaccurate Pre-Op Measurements
 - Change your Treatment Algorithm
 - Unexpected Post-Op Result
 - Poor Visual Outcome

Contact Lenses

Must be OUT

at least 4 weeks prior

to Pre-Op Appt!

Keep them OUT!

No-Go's

- Pregnant
 - Diabetes
 - HIV/AIDS
 - TBI
 - PTSD
 - Psoriasis
 - Vitiligo
- Autoimmune Dz's
- Grave's Dz
 - Lupus (SLE)
 - Sarcoid
 - Hepatitis
 - Rheumatoid Arthritis
- ...many more

Pre-Op Appointment

- I see multiple candidates!
- Exam ~ at least 2-3 Hours
 - Review Pre-Op Exam & Studies
 - Quick Slit-Lamp Exam
 - May Repeat Studies (if suspicious)
- I make FINAL Decision...

Yay! , Nay! or Maybe?

Pre-Op → Surgery

- Ideally within 1-3 Months
- Must be within 6 Months
- If not, repeat Pre-Op Exam(s)

CONTACTS must REMAIN OUT
PRIOR to SURGERY!

Keep them OUT

Eye Hygiene

- Wash Eyelids & Eyelashes
 - Start ~1 week before surgery
 - Warm Wet Washcloth (1-2x/day)
 - Baby Shampoo
- No Eye Make-Up
 - At least 1 week before surgery
 - At least 1 week after surgery

The Day of Surgery

- Please be Punctual
- You need a Driver or Buddy
- Dress Comfortably
- No Perfume or Cologne!
 - Alter Laser's Wavelength, thus Power
- No Make-Up!
 - Debris & Infection

Post-PRK Meds

- Antibiotic Drop: Vigamox
- Anti-Inflammatory: FML eye drops and oral Motrin
- Artificial Tears: REFRESH
- Pain Pills: Motrin & Lortab
- Vitamin-C
- Eye Ointment: Lacri-lube

Post-LASIK Meds

- Antibiotic Drop: Vigamox
- Anti-Inflammatory: Prednisolone 1%
- Artificial Tears: REFRESH
- Restasis: 2x/day for 3 months
- Pain Pills: Valium 5mg
 - Tape Eye shields over Eyes when Sleeping for Two Weeks!

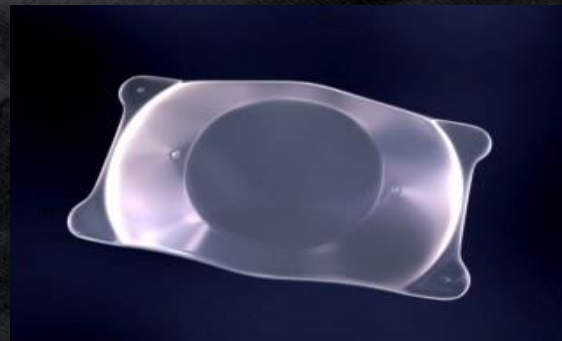
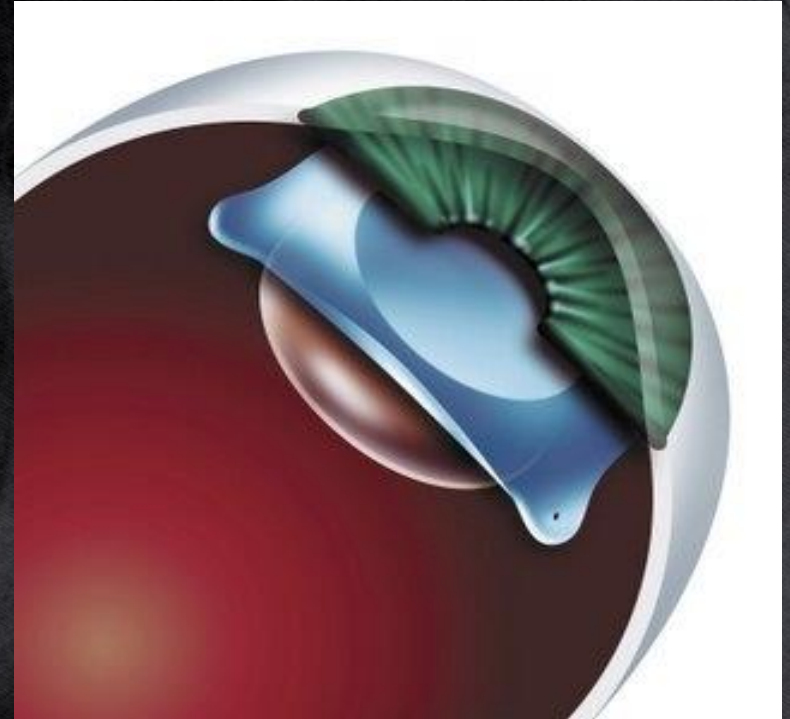
Intraocular Contact Lens

ACTIVE DUTY ONLY

- Alternate to PRK/LASIK
 - Abnormal Corneas (Topo/CCT)
 - Myopes of -3.00 to -15.00
- Two/Three Separate Procedures
 - LPI's OU, then in 1-2 Weeks...
 - ICL in One/Both Eye(s)
 - One Month Profile



ICL Surgery



Post-ICL Meds

- Antibiotic Drop: Vigamox
- Anti-Inflammatory Drops:
 - Prednisolone 1%
 - Nevanac (also alleviates pain)
- Pain Pills: Tylenol

Follow-Up Appointment's


• <u>PRK</u>	• <u>LASIK</u>	• <u>ICL</u>
• 1 Week	• 1 Day	• 2 Hours
• 1 Month	• 1 Week	• 1 Day
• 3 Mo's	• 1 Month	• 1 Week
• 6 Mo's	• 3 Mo's	• 1 Month
• 12 Mo's	• 6 Mo's	• 3 Mo's
	• 12 Mo's	• 12 Mo's

Post-Op Precautions

- Never Rub Eyes
- Sunglasses for 3-12 Months
- Keep Eyes Lubricated
- Use Meds as Instructed
- Make all Follow-Up Appointment's
- Always Wear Protective Eyewear

Post-Op Pain

- PRK ~ 2-7 Days
- LASIK ~ 1-2 Days
- ICL ~ Hours (if any)



Fluctuating &/or Blurry Vision

- PRK ~1-2 Months
- LASIK ~2-7 Days
- ICL ~1-3 Days

Final Visual Outcome

- PRK ~ 2-3 Months
- LASIK ~ 1-3 Months
- ICL ~ 2-4 Weeks

Glare / Halos

- LASIK ~ 3-12 Months
- PRK ~ 3-12 Months
- ICL ~ 3-12 Months

Sometimes Forever

Night Driving Issues

Dry Eyes

- LASIK ~ 3-12 Months
- PRK ~ 3-6 Months
- ICL ~ Minimal

Sometimes Forever!

Post-Op Infection

- ICL ~1:1000 Risk
- PRK ~1:5000 Risk
- LASIK ~1:5000 Risk

Surgical Risk

- ICL: Invasive Surgery
 - Cataract, Glaucoma, etc.
- LASIK ~3% Flap Risk
 - Folds, Debris, In-growth, etc.
- PRK: Minimal

Corneal Haze/Scar

- PRK ~ 2.6% Risk
 - Mitomycin-C for some Tx
- LASIK ~ 0.1% Risk
 - Diffuse Lamellar Keratitis
- ICL ~ Minimal (if any)

Corneal Ectasia

- LASIK ~ 1:1000 Risk
- PRK ~ 1:2000 Risk
- ICL ~ Minimal (if any)

Regression (over years)

- PRK ~10-15% Risk*
- LASIK ~10-15% Risk*
- ICL ~Minimal (if any)

*Usually Amenable to Retreatment
via PRK/LASIK

Post-Op Trauma

- LASIK: Flap Dislocation/Amputation
- ICL: Open Wound / Globe Rupture
- PRK: Abrasion / Recurrent Erosion
- Ideally, Cows & Firsties complete Boxing & Combative!

Presbyopia

- Occurs ~40-50 years of age
- Unable to Accommodate (See Near)
- Need Reading Glasses / Bifocals
- PRK/LASIK/ICL does not fix Presbyopia
- Monovision is an option...
 - Dominant Eye corrected to see Far
 - Other Eye corrected to see Near