COSIG-GECIO
Canadian Ophthalmology Student Interest Group
Groupe étudiant canadien d'intérêt en ophtalmologie

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OPHTHALMOLOGY HISTORY & PHYSICAL EXAM

A medical student pocket guide

HISTORY

PAST MEDICAL HISTORY

Systemic Links: Diabetes, hypertension, thyroid disease, or autoimmune issues
Past Ocular History: Is this new change or their normal baseline vision? Do they have a known ocular pathology?
High Yield Ophtho History Items: Eye trauma, surgery, or contact lens use.
Family History: Conditions such as blindness, macular degeneration, glaucoma.
Occupations or Hobbies: High-velocity projectiles (e.g., hammering metal), chemical (e.g., bleach), or UV light (e.g., welding)
Allergies: Especially if examining bilateral red eyes.
Medications: Can verify comorbidities (e.g., glaucoma) and dictate management (e.g., beta-blockers often contraindicated for asthmatics).

HISTORY OF PRESENTING ILLNESS: USE VISTA

V VISION	I INJURY/CONTEXT	S SYMPTOMS	T TIMELINES	A AFFECTED EYE(S)
• Blur, darkness, distortion or diplopia? • Central, peripheral or diffuse? • Flashes, floaters or curtain? • Transient or persistent? • Colour desaturation? • Baseline vision and correction • Vertical or horizontal diplopia?	• Trauma or chemical exposure • Contact lens history • Recent surgery or intravitreal injection • Headache or jaw pain • General appearance (eg head tilt, proptosis) • Discharge (eg purulent, watery)	• Painful or painless? • Severity and character • Photophobia • Pain with extraocular movements • Headache, nausea, vomit • Gritty foreign-body sensation	• Sudden, gradual, transient or progressive? • Constant or intermittent? • Seconds, hours, days or weeks? • Improving, worsening or unchanged?	• Monocular or binocular? • Same severity in each eye? • If diplopia: does covering either eye resolve it? **OU** for both eyes, **OS** for left eye, and **OD** for right eye. Want to be a Dr? Just remember that O**D** is **r**ight eye, O**D**-**r**ight=**Dr**.

PHYSICAL EXAM

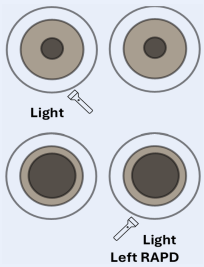
Start with vision, pupils and pressure. Then move outside-in and anterior-to-posterior.

1. VISION

- Visual acuity in each eye
- Use correction; pinhole if reduced
- If chart impossible: Counting Fingers (CF), Hand Motion (HM), Light Perception) LP, No Light Perception (NLP)
- Confrontation fields
- Extraocular alignment and movements
- Color vision

2. PUPILS

PERRLA-DC
Pupils are
Equal,
Round,
Reactive to
Light and
Accommodation –
Direct and
Consensual)



- Swinging flashlight test for RAPD

3. PRESSURE

- Do not measure if open globe is suspected
- Squeezing the eyelids or pressing on the eye will give a false high reading
- Normal range: 10-21 mmHg
- Record method used
- Compare both eyes
- High IOP = No dilation until gonio exam

SAFETY CHECK

If an open globe is suspected or pressure is high, consult with the resident or staff before dilating.

4. SLIT LAMP: EXTERNAL TO INTERNAL

- **External:** Symmetry, ptosis (drooping), proptosis (eyes bulging), inflammation/lacerations/skin lesions
- **Lids/lashes:** crusting, trichiasis, hordeolum
- **Conjunctiva/sclera:** diffuse, sectoral, ciliary flush, hemorrhage
- **Cornea:** clarity, infiltrate, ulcer, edema, foreign body (Fluorescein helps detect epithelial defects like foreign bodies or HSV dendrites)
- **Anterior chamber:** depth, cell/flare, hypopyon or hyphema
- **Iris/pupil**: round, irregular, synechiae, neovascularization
- **Lens:** clear, cataract, phakic/ pseudophakic/ aphakic

6. FUNDUS EXAM

- **Disc:** margin, colour, cup-to-disc ratio, swelling
- **Macula:** foveal light reflex, edema, exudates
- **Vessels:** occlusion, tortuosity, hemorrhage
- **Periphery:** tears, holes, lesions, pigment changes

Fundus exams can be conducted on the **slit lamp** (90D or 78D lens) for most issues and better detail, or **indirect ophthalmoscope** (28D or 20D lens) for less detail but better appreciating the peripheries (e.g., retinal tear)

PRESENT IN ONE SENTENCE

"This is a ___-year-old with ___ days of painful/painless, unilateral/bilateral ___, associated with ___. Vision is ___, pupils show ___, IOP is ___, and examination demonstrates ___. I am most concerned about ___ because ___."

*A good exam isn't about seeing everything perfectly the first time. It's about being **reliable, systematic, and safe.** Speed and efficiency comes later.*