

Topic #2: Perform a basic eye exam

This post describes the ophthalmology learning objectives for the basic eye exam that are covered on the Medical Council of Canada Qualifying Examination (MCCQE). The resources presented here should be sufficient to help you pass the MCCQE exam and perform a basic eye exam in a primary care or emergency setting.

Learning Objectives

2(a): Measure and record visual acuity

2(b): Note whether visual acuity was measured at near or far

2(c): Note whether visual acuity was measured with or without correction

2(d): Understand refractive error

2(e): Remeasure visual acuity using pinhole when vision subnormal

2(f): Describe techniques of age-appropriate visual acuity measurement

2(g): Examine pupillary responses

- Assess for an afferent pupillary defect
- Assess for pupil shape, size, and symmetry

2(h): Examine ocular motility

- Demonstrate an examination for ductions, versions, and comitance in the nine cardinal positions of gaze
- Demonstrate the use of corneal light reflex (Hirschberg) or the cover-uncover technique to assess for ocular misalignment

2(i): Assess visual fields by confrontation testing

2(j): Understand the role of intraocular pressure in the physical exam

- Recognize an abnormal intraocular pressure reading

2(k): Examine the important structures of the anterior segment of the eye with a penlight in a systematic way

- Lids
- Conjunctiva/sclera
- Cornea
- Iris
- Lens
- Anterior chamber depth estimation
- Assessment of clarity of media

2(l): Examine the fundus with either direct ophthalmoscope or fundus photography and identify the most important structures

- Disc (cup, color, contour, margins, vessels)

- Retina in adults/cooperative children
- Red reflex in infants/children

2(m): Instillation of drops

2(n): Ocular maneuvers

- Lid eversion
- Ocular Irrigation

Primary resources

These resources cover learning objectives aside from d and m, meeting most of the core of the learning objectives.

- Undergraduate clinical skills fair (Queen’s Medicine Department of Ophthalmology): <https://ophthalmology.queensu.ca/academics/undergraduate/education/clinical-skills>
 - Objectives a-c, e-l
- Anterior Segment Examination of the Eye (Geeky Medics): <https://youtu.be/OKRqE54QqrQ>
 - Objectives a-c, e-l
- Anterior segment eye examination – OSCE Guide (Geeky Medics): <https://geekymedics.com/anterior-segment-examination-osce-guide/>
 - Objectives a-c, e-l, n

Additional resources

These resources provide more comprehensive information about learning objectives J, K, M, and will allow you to expand on your understanding.

- Refractive errors (EyeSmart – AAO): <https://youtu.be/NpZI1eKiadg>
 - Objective d
- Introduction to the Fundoscopic/Ophthalmoscopic Exam (Stanford Medicine): <https://stanfordmedicine25.stanford.edu/the25/fundosopic.html>
 - Objective l
- Examination of the red reflex in pediatric and adult patients (MoranCORE): <http://morancore.utah.edu/basic-ophthalmology-review/examination-of-the-red-reflex-in-pediatric-and-adult-patients/>
 - Objective l
- How to safely instill eye drops (Mayo Clinic): <https://youtu.be/SnAfc6h4ax4>
 - Objective m

Other Undergraduate Medicine Resource Pages

Topic #1: Describe the anatomy of the eye and the visual system

Topic #3: Evaluate a patient with acute vision loss

Topic #4: Evaluate a patient with chronic vision loss

Topic #5: Evaluate a patient with a red or painful eye

Topic #6: Evaluate a patient with eye trauma

Topic #7: Evaluate a patient with an eye movement abnormality, diplopia, or pupillary disorders

Topic #8: Evaluate pediatric ophthalmic presentations

Topic #9: Ocular Pharmacology

Topic #10: Evaluate a patient with ocular manifestations of systemic disease