



Pediatrics/Binocular Vision/Vision Therapy II CAP Course
Course Description and Learning Objectives
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Course Description: This is an assessment-based course covering topics related to pediatrics, binocular vision, and vision therapy. The first section of the course presents recent evidence-based journal articles covering new research about the effects of digital devices on binocular vision, the natural course of intermittent exotropia, and the optometric management of pediatric nystagmus. The second section covers fundamental concepts related to the diagnosis and treatment/management of binocular and accommodative disorders and common pediatric conditions.

Learning objectives

Reference 1: Maharjan U, Rijal S, Jnawali A, Sitaula S, Bhattarai S, et al. (2022) Binocular vision findings in normally-sighted school aged children who used digital devices. PLOS ONE 17(4): e0266068.

<https://doi.org/10.1371/journal.pone.0266068>

The learner will be able to:

- Discuss the factors related to digital devices that increase demand on the binocular system
- Define “computer vision syndrome” and list common symptoms
- Explain the overall design of the study referenced in this article
- Identify the major results of the study, including which test results were significantly affected in digital device users, which test results were not significantly affected, and how the non-user, low user, and high user groups differed
- Discuss the significance of the results with respect to digital device use in children

Reference 2: Rutner D., Sequential and Multi-Modal Optometric Management of Pediatric Nystagmus. Optometry and Contact Lenses. 2023. <https://www.ocl-online.de/en/sequ-multi-mod-opto-manage-pedia-nystagmus>

The learner will be able to:

- Identify the causes and frequency of pediatric nystagmus and time of onset
- Discuss the need for intervention in cases of pediatric nystagmus
- Explain why abnormal head postures are often seen with pediatric nystagmus and how that affects the prognosis
- List the three types of interventions for nystagmus and identify the pros and cons of each type



- Discuss the multi-modal approach to optometric management of nystagmus and the importance of proceeding in a stepwise fashion
- Discuss why early intervention with optimal spectacle correction is important
- Discuss how prismatic correction can be helpful in managing nystagmus
- Explain why yoked prism is preferred over BO prism to manage nystagmus
- Describe the proper placement of yoked prism in cases of nystagmus
- Explain the benefits of CLs over spectacles in the management of nystagmus
- List the types of biofeedback used with nystagmus and give examples of each
- Discuss the goals of vision therapy for patients with nystagmus and the type of activities that can be used
- Discuss when and why to refer patients with nystagmus to other providers

Reference 3: Pediatric Eye Disease Investigator Group; Writing Committee, Mohny BG, et al. Three-Year Observation of Children 3 to 10 Years of Age with Untreated Intermittent Exotropia. *Ophthalmology*. 2019;126(9):1249-1260. [Three-year Observation of Children Age 3 to 10 Years Old with Untreated Intermittent Exotropia - PMC \(nih.gov\)](#)

The learner will be able to:

- List the prevalence of intermittent exotropia and factors that affect its frequency in individuals
- Explain the methodology of the study described in this article, including how subjects were included or excluded, the observation period, and the primary outcome measure
- Discuss the major results of the study
 - The frequency of progression to constant XT and/or loss of stereoacuity
 - The findings which showed statistical improvement over the observation period
 - The findings that remained stable over the observation period
 - The rate of deterioration over the course of the study
- Discuss the conclusions that can be drawn from the study on the natural course of IXT and the impact on patient care/management

Fundamental Knowledge Section

The learner will review fundamental knowledge related to:

- Treatment and management options for anisometropia
- Treatment and management options for refractive and non-refractive amblyopia
- Assessment, differential diagnosis, treatment and management for accommodative disorders (AI, AE, infacility, spasm)
- Assessment, differential diagnosis, treatment and management for binocular vision disorders (CI, CE, DI, DE, pseudo-CI)
- Assessment, differential diagnosis, treatment and management for oculo-motor anomalies (saccades, pursuits, nystagmus)
- Assessment for visual perception disorders (common tests and when to use)
- Non-surgical treatment and management of strabismus



Preparing For Assessment

To receive 2.5 hours of COPE-accredited CE for this course, learners must score a minimum of 70% (18 correct answers) on the assessment. Each learner has two attempts to achieve a passing score.

Once learners have completed all course materials and feel prepared to begin the assessment, please email info@abopt.org to receive a link to the online assessment page. Include your name and order number for the course.

Before beginning the assessment, please read the following information carefully.

1. This assessment is confidential and proprietary. All questions and other materials in this assessment are the sole property of the American Board of Optometry. No one is permitted to reproduce the test questions in whole or part, take screenshots of the questions, make written notes, or record or transfer test questions by any means.
2. There are 25 scored questions in this assessment and 8 unscored survey questions, for a total of 33 questions. Questions 1-13 are based on the references that you've been given (see link above), related to new clinical practice guidelines or advances in the profession. Questions 14-25 are based on fundamental knowledge of pediatrics/binocular vision/vision therapy. Questions 26-33 are survey questions which must be answered to complete this assessment but are not scored.
3. You have 4 hours (240 minutes) to answer all questions. This is an open book assessment, so you may use this time to consult reference sources. However, you may NOT discuss the questions with anyone else. There is a timer at the top of the screen that indicates how much time you have left.
4. While learners are permitted to use any electronic device to access this assessment, care must be taken to protect the confidential nature of the test questions. If the electronic device is shared or if other people are present, the learner must ensure that test questions are not visible or accessible to others.
5. You must correctly answer 18 of the 25 scored questions to pass this assessment.
6. If you do not pass the assessment on the first attempt, you may email info@abopt.org for a new link to attempt a second time. Please review the references provided for incorrect answers prior to making a second attempt.
7. I understand that if I do anything in violation of these policies, ABO has the right to invalidate my score on this assessment.