Welcome to the Binocular Vision, Perception and Pediatric Optometry Section's Diplomate program. These guidelines are for the Clinical Diplomate program.

The Binocular Vision, Perception, & Pediatric Optometry Section of the American Academy of Optometry would like to welcome you as a candidate for the Diplomate Program. This guide will serve to acquaint you with the requirements and procedures for becoming a Clinical Diplomate in the Binocular Vision, Perception, & Pediatric Optometry Section. A Clinical Diplomate has demonstrated a required level of expertise in the clinical care of pediatric patients and those presenting with binocular vision and perception disorders.

We believe that the learning experience you are embarking on is a rewarding one. Not only will you profit from the added knowledge from your studies, but you will also achieve satisfaction in the recognition of your competency. After you have successfully completed your candidacy, we hope your interest will keep you curious about new advances in the field, as well as accepting new responsibilities and leadership roles within the Section.

The Clinical Diplomate in Binocular Vision, Perception, and Pediatric Optometry requires that the candidate demonstrate a required level of expertise in the clinical care of patients with binocular vision, perception, and pediatric vision disorders. Because the information needed to achieve an expert level in all three areas is so vast, the Diplomate process has been divided into two different areas of emphasis: 1) binocular vision and perception and 2) pediatric optometry.

When beginning the Clinical Diplomate process you must choose an area of emphasis: 1) binocular vision and perception or 2) pediatric optometry. Your choice should be made based on which area best fits your mode of clinical practice and expertise. There are different case report requirements for the two areas. The written and practical examination process is similar for both areas of emphasis and consists of core material to assure that all Diplomates have a common knowledge base. The distribution of test items changes, however, to match the area of emphasis that you have chosen (i.e., binocular vision and perception or pediatric optometry). Topic areas require advanced or basic knowledge depending on the area of emphasis (See "Behavioral Objectives for Written Examination" section within the document). Likewise, the emphasis of the practical examination will be in the area that you have chosen.

Please review the requirements carefully and if you have any questions, contact your advisor or the Diplomate Chair.

Please note that this guide supersedes all previous information and instructions regarding the Diplomate process.
Requirements for the Clinical Diplomate

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REQUIREMENTS FOR THE CLINICAL DIPLOMATE

To apply as a Clinical Diplomate Candidate, you must:

1. Be a Fellow in good standing of the American Academy of Optometry.

2. Submit an application indicating your desire to become a Diplomate of the Section. The application should be returned together with an application fee of $100 (made payable to the American Academy of Optometry) prior to April 15th of the year in which any part of the requirements will be undertaken to:

   Binocular Vision, Perception, & Pediatric Optometry Section Diplomate Program
   American Academy of Optometry
   2909 Fairgreen Street
   Orlando, FL 32803
   Fax: 407-893-9890

Once your application is accepted, you must complete the following steps:

1. Submit and have accepted five (5) written clinical case reports

2. Pass a comprehensive written examination

3. Pass a practical clinical examination

4. Pass an oral examination

I. THE CASE REPORTS REQUIREMENT

The purpose of the case reports requirement is to demonstrate your knowledge and expertise in various areas of the clinical care of pediatric patients and those with binocular vision and perception disorders. This requirement ensures that the candidate has attained a level of competency that is consistent with Diplomate status and also informs the Diplomate Committee about your mode of patient care which serves as the basis for the oral examination.
A. Case Report Requirements

The case report requirement is five (5) clinical case reports.

Those with an emphasis in *Binocular Vision and Perception* should submit one case report on each of the following conditions:

1. Exotropia: management should include active vision therapy as a component.
2. Esotropia: management should include active vision therapy as a component. Accommodative esotropia managed simply with spectacles is not acceptable.
3. Amblyopia: management should include active vision therapy as a component. Anisometropic amblyopia managed simply with spectacles or contact lenses is not acceptable.
4. Learning-Related Vision Problem: the case should include both visual efficiency and visual perceptual diagnoses. Management should include active vision therapy for both the visual efficiency and visual perceptual problems. A case demonstrating your role as a multi-disciplinary team member is preferred.
5. Visual Efficiency or General Skills (ocular motility, accommodative or non-strabismic vergence disorders) case: management should include active vision therapy as a component.

Those with an emphasis in *Pediatric Optometry* should submit one case report on each of the following conditions:

1. Management of Significant Refractive Error: should include assessment, treatment considerations, management, and follow-up of a child from 0-4 years of age who presents with a significant refractive error. Prescribing rationale, emmetropization considerations, and risk factors should be documented carefully.
2. Strabismus: diagnosis and management of a patient less than 12 years of age, including passive (e.g., lenses, prisms, occlusion, anti-suppression activities) or active therapy. Accommodative esotropia without other complicating problems (i.e., resolved entirely with spectacle correction alone) is not acceptable. If treatment is being co-managed, include treatment information as it relates to each practitioner. Simply referring the patient for secondary care is not considered acceptable.
3. Amblyopia: diagnosis and management of a patient less than 12 years of age with strabismic or anisometropic amblyopia. Treatment should include passive or active therapy.
4. Pediatric Patient with Identified Developmental Disability, Mental Handicap or Learning Disability or a Visually-Impaired Child: Document complete medical history, as well as educational information which related to the eye care needs of the patient. Discuss completely the unique concerns about the management of this special needs patient, as well as the diagnosis, treatment, follow-up, and referrals for additional evaluations and/or care. Deficits found in visual efficiency and visual perceptual skills should
be addressed. If the patient is visually impaired, the low vision assessment data should be included along with the management plan. Demonstrate your role as a part of the multi-disciplinary team in the care of the patient.

5. Pediatric Ocular Disease case of Anterior Segment, Posterior Segment or Neuro Ophthalmic Disease. The case report should include the presenting signs/symptoms, assessment, management, treatment, and follow-up of a child with congenital or acquired ocular disease. This may include co-management of the patient with other health care providers, including pediatric medical specialties, ophthalmology, neurology, psychology, audiology, etc. Management of an aphakic infant would be appropriate; however, a simple conjunctivitis is not considered acceptable. Other cases could include conditions such as aniridia, congenital albinism, congenital nystagmus, and glaucoma.

If you have a question about the appropriateness of a case that you have selected, please call the Case Reports Chair for an opinion.

B. Form of the Case Report

Case reports should be typed, double-spaced with consecutive line numbers. An electronic Word (or compatible) document should be submitted via email to the Case Reports Chair. Write in a clear and concise manner and proofread your reports carefully. Be certain to number your pages and include the date of submission in the footnote section. Your name and address should appear only in the email message, NOT on the case reports. Resubmissions should be made using track changes or the text changes should be highlighted. Alternatively, the Case Report Chair may ask you to submit an addendum which would consist of responses from you to address questions regarding your report.

Record the data in a manner that is easily understood by everyone. It is acceptable to record findings as "within normal limits" (WNL), if those findings have no bearing on the diagnosis and management of the case. Readers from a different background than yours may not understand your clinical "shorthand" or conventions; therefore, use standard optometric terminology.

Do not assume that the reviewers know what you are thinking, even if it seems obvious to you. Please explain everything in detail, especially with regard to the diagnosis and management. The purpose of the case reports are for you to demonstrate your clinical reasoning; therefore, case reports involving difficult clinical situations that involve problem solving are generally more acceptable than reports where everything is straightforward. Sample case reports are posted on the Academy’s website under the BVPO Diplomate Information page.
C. Content of the Case Report

All case reports must contain the following information:

1. Case report topic (e.g., "exotropia case") and a one or two paragraph abstract of the case.

2. History: chief complaint; presenting signs and symptoms or performance difficulties; patient's
developmental, educational, eye, and medical history; pertinent family eye/medical history; and brief summary
of any previous eye care or other pertinent evaluations.

3. Diagnostic testing should include the following information. If certain tests were deleted, a rationale should
be provided. In addition, there may be things that you would have done differently than you actually did in this
case. Please be sure to comment on those circumstances.

   a. For all reports: visual acuities, refraction, eye alignment, sensorimotor fusion, and ocular health
      assessment.

   b. For reports involving strabismus or amblyopia: characteristics of the deviation (comitancy, direction,
magnitude, frequency, eye laterality (preferred eye), cosmesis, AC/A ratio). Associated conditions: level
      of amblyopia, monocular fixation, correspondence, sensory/motor fusion testing (including suppression
      and level of stereopsis).

   c. For visual efficiency or general skills cases: ocular motility status (pursuits, saccades, and fixation),
      accommodative status (amplitude, facility, lag, PRA/NRA), binocular status (magnitude and direction of
      heterophoria, AC/A ratio, NPC, PFC/NFC at far and near, fixation disparity testing, vergence facility,
      second degree sensory fusion testing, and stereopsis).

   d. For learning-related vision problems: a visual efficiency evaluation (see above) and a reasonably
      comprehensive evaluation of visual perceptual development including: laterality, directionality, visual
      discrimination, form constancy, visual figure-ground, visual closure, visual memory, visualization,
      visual motor integration, visually guided fine-motor skill (eye-hand coordination). It may also include a
      screening for cognitive ability, reading ability and auditory processing skills.

   e. Reports involving children with developmental disabilities or those who are visually impaired should
      include detailed information on the visual and other complications of the disorder. It is important to
      relate your management plan to the specific needs of the patient. An assessment may include evaluation
      of visual perceptual development (as applicable) to include: laterality, directionality, visual
      discrimination, form constancy, visual figure-ground, visual closure, visual memory, visualization,
      visual motor integration, visually guided fine-motor skill (eye-hand coordination), and screening for
      cognitive ability.

   f. Ocular disease cases should include a detailed description of the eye health evaluation (including
      testing methods used) as well as copies of any special testing (e.g., VEP, MRI) that was completed.
4. Assessment: diagnosis, supporting data, relationship of diagnosis to entering complaints.

5. Management

   a. Discussion of potential treatment options.
   b. Outline of management plan with rationale.
   c. Description of any passive or active vision therapy, or other management, including lenses, prisms, filters occlusion, medication, or surgery.
   d. If applicable, description and sequencing of home and office therapy.
   e. If applicable, description of any consultations or follow-up with other professionals.
   f. Disposition of the case, including results and follow-up care.

D. Substitution of Published Case Reports

To substitute published case report(s) for the required written case reports, the case report(s) must have been published in a refereed journal and you must be the first author. The published case report(s) must be a direct substitute for the required case reports. The Case Reports Chair and his or her referees will decide whether or not a published case report is acceptable and meets the substitution requirements. Generally, the amount of information required in the publication would need to be comparable to that which is required on a submitted written report. The committee may ask for a supplement to the published case report to clarify certain aspects of the case (e.g., more detail of the office and home therapy program or follow-up might be necessary).

E. Submission and Review Process

You must have at least one case report (not a substitute published paper) accepted before you will be allowed to take the written examination. You must have all five case reports accepted before you may take the practical examination. The initial case report must be accepted by August 1, in order to be considered for that year’s Annual Meeting. Early submission is strongly encouraged to allow adequate time for review and revision (if necessary). Keep in mind that revisions are frequently necessary and each review cycle may take up to six weeks. Do not send all 5 case reports in at once. The Case Reports Chair will assign the case report a coded number and will forward the report to two referees who are Diplomates in the Section. This insures that the referees do not know the author of the report they are reviewing and guards against any individual bias. If the case report is returned for revision, the comments and critique from the referees need to be addressed by either revising the report or rebutting the comments. All revisions to the initial report should be outlined briefly in a cover letter to the reviewers. This will make the review process simpler for the reviewers. Once the initial case report is accepted you should continue to finish the remaining case reports and submit them for review.
When the five case reports have been accepted by the Case Reports Chair, you will have completed this phase of the Diplomate process. All 5 case reports must be accepted by September 1 in order to be eligible to take the practical and/or oral examinations at the AAO annual meeting.

F. Updating of Requirements

From time to time, the Diplomate Committee will make changes in specific case report requirements. You will be required to satisfy the new requirement(s) if you have not previously done so. An exception will be made if the Case Reports Chair is aware that you are currently working on a case report to satisfy a prior requirement or if you have previously submitted a report to satisfy a prior requirement and are in the process of revising it for resubmission.

II. THE WRITTEN EXAMINATION REQUIREMENT

The written examination is designed to evaluate your knowledge of all aspects of the binocular vision, visual perception, and pediatric optometry fields. The examination format is approximately 120 multiple choice questions followed by 5 short answer questions, and 1 essay question. The short and long essays will be in the candidate's area of emphasis (either Binocular Vision & Perception or Pediatric Optometry). Three hours are allotted for this examination. To guide your preparation for the written examination please note that the number of questions asked in each category depends on the area of emphasis that you have chosen - either Binocular Vision & Perception (BV&P) or Pediatric Optometry (Peds). The number of questions in each area is approximately:

<table>
<thead>
<tr>
<th>Subject Area</th>
<th>BV&amp;P</th>
<th>Peds</th>
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<tbody>
<tr>
<td>Infant Vision &amp; Vision Development (including Refractive Error)</td>
<td>10</td>
<td>30</td>
</tr>
<tr>
<td>Pediatric Developmental Disabilities</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Vision &amp; Learning and Perception</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Visual Efficiency or General Skills</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Strabismus &amp; Amblyopia</td>
<td>25</td>
<td>20</td>
</tr>
<tr>
<td>Vision Therapy *</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Neurological Problems &amp; Pediatric Ocular Disease</td>
<td>10</td>
<td>20</td>
</tr>
</tbody>
</table>

* includes strabismus, amblyopia, visual perception, and visual efficiency.
A. Behavioral Objectives for the Written Examination

The following behavioral objectives will be helpful in preparing for the written and practical examination. Each behavioral objective has been assigned an advanced (Adv) or basic knowledge level depending on the area of emphasis of the candidate. For example, a candidate emphasizing pediatric optometry (Peds) should have advanced knowledge for behavioral objective 2 in the Infant Vision and Vision Development Section, whereas a candidate emphasizing binocular vision and perception (BV&P) is required to have basic knowledge.

The candidate for Diplomate status is expected to be able to do the following in the areas listed:

**Infant Vision & Vision Development (including Refractive Error)**

<table>
<thead>
<tr>
<th>BV&amp;P</th>
<th>Peds</th>
<th>Behavioral Objectives</th>
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</thead>
<tbody>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Describe methods of evaluating the eyes and visual status (i.e., eye health, refractive, visual acuity, binocularity, visual efficiency assessments) of an infant, preschool, and school-aged child (less than 13 years of age). Discuss the benefits and limitations of the various methods designed for the differing capabilities of these patients.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe normal growth and development of the eye, orbit, and visual system from birth through the first 6 years of life.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe normal growth and developmental characteristics of infants and children in the areas of physical development, gross and fine motor skills, cognitive changes, speech and language development, and social skills.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe the development of visual acuity, accommodative skills, pupillary response, and ocular motor skills including fixations, pursuits, saccades, versions, vergence, and optokinetic nystagmus.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Discuss the concept of emmetropization, how it impacts the development and correction of refractive errors in children and how uncorrected refractive error may be a risk for amblyopia or strabismus. Be able to correlate structural changes to changes in refractive error.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Discuss the physical, emotional, and ocular signs/symptoms of child abuse and neglect</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Discuss the important issues relating to the prenatal, perinatal, and postnatal case history.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe vision screening techniques appropriate for infants, preschoolers, and school-aged children.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Discuss the management considerations for a pediatric aphakic patient.</td>
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</table>
### Pediatric Development Disorders

<table>
<thead>
<tr>
<th>BV&amp;P</th>
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<th>Behavioral Objectives</th>
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</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe the physical and ocular manifestations as well as appropriate examination techniques when dealing with individuals diagnosed with intellectual impairment, developmental disabilities, cerebral palsy, Down syndrome, Fragile X syndrome, Autism Spectrum Disorders, low-birth weight, fetal alcohol syndrome, and other commonly encountered syndromes.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe common causes of visual impairment in children. Be able to address the examination techniques, differential diagnosis, and plan/treatment options, as well as referrals to other medical and educational resources.</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Define learning disability, reading disability, and dyslexia and be able to describe the psycho-educational methods used to identify these conditions.</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Describe the clinical characteristics and current treatment procedures for Attention Deficit Disorder and Attention Deficit and Hyperactivity Disorder.</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Describe the roles of educators and other medical professionals in the multidisciplinary care of the child with learning problems, including optometry’s role in the Individual Education Plan (IEP) / 504 Plan process. Describe instances where referrals are appropriate.</td>
</tr>
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</table>

### Vision & Learning & Vision Perception

<table>
<thead>
<tr>
<th>BV&amp;P</th>
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<th>Behavioral Objectives</th>
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<tbody>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Describe methods of obtaining, clarifying and assessing information gathered from parents, teachers and/or other professionals regarding potential visual processing deficiencies, including a developmental history from parents, a teacher questionnaire, and psycho-educational evaluation results.</td>
</tr>
</tbody>
</table>
| Adv  | Basic| List and describe the methods (including clinician observations) of evaluating the developmental level of performance in the areas of:  
  a. Gross motor and bilateral integration  
  b. Laterality and directionality  
  c. Visual analysis to include: form discrimination, figure ground, visual closure, and form constancy  
  d. Visual memory and visualization  
  e. Visual memory integration and visually guided fine-motor control  
  f. Auditory processing skills, to include: auditory visual integration, auditory discrimination, and auditory memory |
| Adv  | Basic| Given a history, test findings, and observations develop a diagnosis and prognosis. |
| Adv  | Basic| Be able to correlate entering signs and symptoms with vision perception testing results. |
| Adv  | Basic| Describe how visual or visual perception problems can affect academic performance. |
| Adv  | Basic| Propose possible recommendations to educators about classroom accommodations for a child with vision processing deficiencies. |
| Adv  | Adv  | Determine and describe what information gathered in the case history, optometric evaluation, or other ancillary testing that would suggest the need for additional testing or treatment by another professional. |
Vision & Learning & Vision Perception (continued)

<table>
<thead>
<tr>
<th>BV&amp;P</th>
<th>Peds</th>
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</thead>
<tbody>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>List and describe a sequential vision therapy program, including a rationale for lens therapy, for visual processing deficits, and possible follow-up care.</td>
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<tr>
<td>Adv</td>
<td>Basic</td>
<td>Describe the underlying principles and be able to illustrate specific vision therapy techniques used in the remediation of visual perceptual-motor development. For example, explain the sequence of therapy involved in training laterality and directionality skills.</td>
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</table>

Visual Efficiency or General Skills

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<tr>
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</thead>
<tbody>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>List and describe diagnostic methods used in evaluating: a. Ocular motility/eye movement skills: pursuits, saccades, fixation. b. Accommodative skills: to include amplitude, facility, accommodative response (posture or lag), and relative accommodation. c. Vergence skills: to include near point of convergence, vergence facility, amount of heterophoria, fixation disparity, and fusional vergence. d. Sensory fusion: second degree fusion, suppression, and stereopsis</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Given a simulated patient, analyze the results of the diagnostic testing and determine abnormal and normal findings.</td>
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<tr>
<td>Adv</td>
<td>Adv</td>
<td>Given a simulated patient, list a syndrome-based diagnosis and supportive data (e.g., convergence insufficiency - receded NPC, high exophoria at near, reduced PFC at near).</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Evaluate and explain the relationship between entering signs and symptoms, and test data in order to achieve an accurate diagnosis of vision efficiency problems (e.g., blur at distance after near work and a finding of accommodative infacility).</td>
</tr>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>Describe the theoretical and physiological relationships between accommodation and vergence.</td>
</tr>
<tr>
<td>Basic</td>
<td>Basic</td>
<td>Discuss fixation disparity testing and analysis as well as the control systems model for vergence and accommodation.</td>
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</table>

Strabismus & Amblyopia

<table>
<thead>
<tr>
<th>BV&amp;P</th>
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<th>Behavioral Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>List and describe the diagnostic methods you would use in examining a patient presenting with strabismus and/or amblyopia in the following areas: refractive status, visual acuity, monocular fixation, characteristics of the deviation (comitancy, frequency, direction, eye laterality (eye dominance), magnitude, AC/A ratio, cosmesis), correspondence, sensorimotor fusion (second degree fusion and stereopsis).</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Given a simulated patient, evaluate and interpret the results of the diagnostic testing, and formulate a diagnosis and a prognosis for the patient's condition(s).</td>
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</table>
**Strabismus & Amblyopia (continued)**

<table>
<thead>
<tr>
<th>BV&amp;P</th>
<th>Peds</th>
<th>Behavioral Objectives</th>
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</table>
| Adv  | Adv  | Recall the etiology, prevalence and clinical characteristics of the following conditions:  
|      |      | a. Amblyopia: psychogenic, form deprivation, refractive (isoametropic and anisometropic), strabismic, and relative amblyopia.  
|      |      | b. Comitant Strabismus  
|      |      | • Exotropia: convergence insufficiency, basic exo, divergence excess, infantile XT, Sensory XT  
|      |      | • Esotropia: convergence excess, basic eso, divergence insufficiency, accommodative (refractive, non-refractive and combined), partially accommodative, infantile (congenital), acute-onset comitant ET, sensory ET, microtropia, monofixation syndrome/ microtropia with identity, blind spot syndrome and pseudo esotropia  
|      |      | • Vertical Strabismus  
|      |      | • Sensory Strabismus  
|      |      | c. Noncomitant Strabismic Conditions  
|      |      | • Dissociated Vertical Deviation  
|      |      | • Overaction of Inferior Obliques  
|      |      | • A-V Syndromes  
|      |      | • Paretic Strabismus (IIIN, IVN, VIN)  
|      |      | • Special forms of strabismus: Duane's Syndrome, Brown's Syndrome, Endocrine Myopathy, Fractures of the Orbit, Myasthenia Gravis  
|      |      | d. Other Types of Strabismus  
|      |      | • Consecutive Strabismus  
| Adv  | Basic | Recall and contrast current theories relative to the etiology of strabismus, amblyopia, eccentric fixation, and anomalous correspondence. |
### Vision Therapy

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<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>List and describe in detail a sequential vision therapy program relative to vision inefficiency (basic skills) which would include a rationale for lens therapy, vision therapy including home and office therapy, and follow-up care.</td>
</tr>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>Describe the underlying principles and be able to illustrate specific vision therapy techniques used in the remediation of ocular motility, accommodative, and non-strabismic vergence deficiencies. For example, when using the single Aperture-Rule Trainer, describe where vergence and accommodation are positioned when the patient reports clear and single vision.</td>
</tr>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>List and describe a sequential vision therapy program relative to strabismus and amblyopia which would include a rationale for lens therapy, prism therapy, occlusion therapy, potential pharmacological therapy, surgery, and active vision therapy including home and office therapy, and possible follow-up care.</td>
</tr>
<tr>
<td>Adv</td>
<td>Basic</td>
<td>Describe the underlying principles and be able to illustrate specific vision therapy techniques used in the remediation of strabismus and amblyopia. For example, explain the process of co-variation of correspondence that occurs in intermittent exotropia.</td>
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### Neurological Problems & Pediatric Ocular Disease

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<thead>
<tr>
<th>BV&amp;P</th>
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</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe the most significant congenital and early acquired ocular disorders, including assessment, differential diagnosis, and management. This should include congenital cataracts, retinopathy of prematurity, red eyes, a blocked nasolacrimal system, glaucoma, optic nerve disorders, albinism, retinitis pigmentosa, and retinoblastomas.</td>
</tr>
<tr>
<td>Basic</td>
<td>Adv</td>
<td>Describe the clinical presentation, differential diagnosis, and management of different forms of nystagmus including congenital, acquired, latent, sensory, manifest-latent, and spasmus nutans.</td>
</tr>
<tr>
<td>Adv</td>
<td>Adv</td>
<td>Describe the clinical presentation, differential diagnosis, and management of III, IV, and VI nerve palsies.</td>
</tr>
</tbody>
</table>
III. THE PRACTICAL EXAMINATION REQUIREMENT

After the acceptance of all five case reports and successful completion of the written examination, you are eligible to take the practical examination. The practical examination is designed to evaluate the candidate’s clinical competency in three areas: Technical skills (Psychomotor), Diagnosis and Management (Cognitive), and Patient Communication. The practical examination will involve performing tests/therapy on patients, as well as evaluating conditions on video recordings. Two proctors (who are Diplomates in BVP and PO) will observe you for each patient. You will be given any necessary history and test findings, and asked to perform the procedures listed below. You should think aloud as you work, to explain your rationale and methods to the proctors. If you need any equipment that you do not see, please mention this to the proctors.

The practical examination is typically conducted at one of the optometric offices or clinics in the area of that year’s Annual Meeting; the Diplomate Vice-Chair will provide the exact time, location and information about transportation to and from the site. Approximately 4 hours are allocated for this examination. It is important that the Diplomate Chair know your contact information so he or she can contact you to schedule your exam time. The following represents an overview of the practical examination.

A. Technical Skills

This area is intended to assess the candidate's ability to efficiently and accurately administer appropriate clinical procedures used in the identification, diagnosis, and treatment of binocular vision and perceptual dysfunctions (see written examination behavioral objectives for specific conditions). Each section is to be completed within 30 minutes, which includes discussion of management options. You will be asked to assess patients in each of the following categories:

1. Strabismus/amblyopia: for example, conduct the unilateral and alternate cover test and record your results. Assess monocular fixation.

2. Visual efficiency or general skills: for example, conduct MEM retinoscopy or demonstrate how to train convergence using the Aperture Rule Trainer.

3. Visually-related learning problem or developmental disability: for example, administer and score the Beery Developmental Test of Visual-Motor Integration or the TVPS.

4. Pediatric optometry: evaluate visual acuity with the Teller Acuity cards, Lea chart, or fixation preference; evaluate eye alignment with Brückner, Hirschberg, Krimsky, and cover tests. Determine refractive status by various means.
Procedures for the Binocular Vision and Perception Emphasis

Visual Skills Evaluation:

1. Objective evaluation of pursuits and saccades (4+ scale, or equivalent)
2. Accommodative facility
3. MEM retinoscopy
4. Vision therapy procedures with two or more of the following (at the proctors’ discretion): Brewster-type stereoscope, Aperture Rule, Vectograms, Cheiroscope (single oblique mirror stereoscope), Eccentric Circles, Lifesaver cards (Colored Circles cards)

Sensory Evaluation (esotropia)

1. Major amblyoscope testing for correspondence
2. Bagolini striated lens test
3. Hering-Bielschowsky afterimage test

Motor Evaluation (esotropia or exotropia)

1. Unilateral and alternating cover test
2. Comitancy testing with cover test, red lens, Parks 3-step, or versions
3. Evaluation of video recorded conditions

Amblyopia Evaluation

1. Psychometric acuity (Wesson cards, or equivalent)
2. Visuoscropy
3. Haidinger’s brushes (MITT)

Visual Information Processing/Developmental Evaluation

1. Detailed case history
2. Developmental Eye Movement test (Richman)
3. Test of Visual Perceptual Skills (Gardner) or equivalent
4. Developmental Test of Visual Motor Integration (Beery) or equivalent
5. Presentation of test findings to patient/parent
**Procedures for the Pediatric Optometry Emphasis**

**Pediatric Evaluation**

1. Visual acuity with Lea symbols, HOTV, Broken Wheel, or preferential looking
2. Fixation preference testing
3. Retinoscopy using lens bars

**Visual Skills Evaluation:**

1. Objective evaluation of pursuits and saccades (4+ scale, or equivalent)
2. Accommodative facility
3. MEM retinoscopy
4. Vision therapy with two or more of the following (at the proctors’ discretion):
   5. Brock string, Aperture Rule, Vectograms, Eccentric Circles, Lifesaver cards

**Motor Evaluation (esotropia or exotropia)**

1. Unilateral and alternating cover test
2. Hirschberg and Kappa tests
3. Brückner test
4. Comitancy testing with versions/Hirschberg, cover test, red lens, or Parks 3-step
5. Evaluation of videotaped conditions

**Amblyopia Evaluation**

1. Visuoscopy
2. Haidinger’s brushes (MITT)

**Visual Information Processing/Developmental Evaluation**

1. Case history for screening purposes
2. Denver Developmental Screening Test
3. Test of Visual Perceptual Skills (Gardner) or equivalent
4. Developmental Test of Visual Motor Integration (Beery) or equivalent
5. Presentation of test findings to patient/parent
The following equipment will be available for your use:

- Snellen visual acuity chart; Lea, HOTV, Broken Wheel, or preferential looking cards
- Phoropter, chair and stand
- Wesson psychomeric acuity cards, or equivalent
- Major amblyoscope and targets
- Macular Integrity Tester/Trainer (Haidinger's brushes)
- Bagolini striated lenses
- Afterimage flasher
- Brewster-type stereoscope with stereograms
- Brock string
- Polachrome orthopter (illuminated Vectogram holder)
- Vectograms
- Tranaglyphs
- Cheiroscope
- Aperture-rule trainer
- Free space fusion cards (e.g., eccentric circles, lifesaver cards)
- Retinoscopy lens bars
- ±2.00 accommodative flippers
- #9 Vectogram or accommodative rock cards
- Polaraized suppression check strips
- Loose prisms with red lens
- Horizontal prism bar
- Anaglyphic and Polarized filters
- Pointer
- Tape measure
- Hess-Lancaster chart and lanterns (if possible)
- Berry Visual Motor Integration Test – (test plates, manuals, and recording sheets)
- Test of Visual Perceptual Skills (test plates, manuals, and recording sheets)
- Developmental Eye Movement Test (test plates, manuals, and recording sheets)
- Denver Developmental Screening Test
- DVD player and color monitor

You are asked to bring the following equipment:

- Occluder
- Cover test targets
- Diagnostic set (ophthalmoscope w/ visuoscopy target, retinoscope, transilluminator)
- MEM cards
- Maddox rod
- PD ruler
- Your own DEM, TVPS, VMI, and DDST materials or equivalent, if desired
B. Diagnosis and Management

This area is intended to assess the candidate's ability to analyze the results obtained in direct patient contact or presented by slides, video, audiotape, or computer simulation. The candidate is then required to provide the correct diagnosis and a management plan.

1. Strabismus/amblyopia: for example, after viewing a video recording of version testing of a patient, give the diagnosis, possible etiology and potential treatment options.

2. Visual efficiency or general skills: for example, after being given the results of accommodative testing, give the diagnosis and potential treatment options.

3. Visually-related learning problem or developmental disability: for example, after administering the Beery Developmental Test of Visual-Motor Integration, score and determine the patient's raw score, age-equivalent and percentile rank and then discuss potential treatment options.

4. Pediatric optometry: after viewing Brückner data from an infant or toddler, provide the possible diagnosis and management options.

C. Patient Communication

This area is intended to assess the candidate's ability to communicate with the patient in each of the following categories:

1. Ability to conduct a comprehensive case history of a patient (or from the parent of a patient) presenting with strabismus, amblyopia, visual efficiency problem, visually-related learning problem, developmental disability, or visual impairment including: chief complaint, symptoms, type and time of onset, patient eye and medical history, family eye and medical history, and developmental and psycho-educational history.

2. Ability to present a comprehensive case presentation to a patient or parent of a pediatric patient with strabismus, amblyopia, developmental disabilities, visual impairment, visual efficiency problems, or visually-related learning problems including: the diagnosis, prognosis and details of a specific management plan. The candidate will be evaluated on the content of the plan as well as the communication style used.
IV. THE ORAL EXAMINATION REQUIREMENT

After successful completion of the case reports, written and practical examinations, you are eligible to take the oral examination. The purpose of the oral examination is to determine what you have learned by completing the other phases of the Diplomate process, and to ascertain the depth of knowledge in targeted areas. Content includes discussion of your cases, theoretical concepts, and general skills knowledge. You will be given the opportunity to defend your case reports and your performance on the written and practical examinations. The latter portion enables the committee to insure that lack of practice in taking examinations does not obscure your knowledge and skills. The oral examination is usually given by three to five Diplomates in a private setting. Typically, there will be a past Section or Diplomate Chair, an educator and a clinician on the examining committee. The oral examination will be scheduled during or immediately prior to the Academy's Annual Meeting. It is approximately one hour in length. It is important that the Diplomate Chair know your contact information, including cell phone number and hotel room number so he or she can contact you to schedule your exam time.

V. REPEATING EXAMINATIONS

Inability to achieve the required level of performance on any one part (written, practical or oral) of the examination necessitates a repetition of that part of the examination at a subsequent meeting of the Academy. Those parts of the examination that were completed successfully need not be repeated. If you fail the written examination, you must make additional progress on the case reports before you will be allowed to retake the written examination the following year. Such progress is defined as having two additional case reports accepted prior to the Annual Meeting.

VI. INTERVIEW AT ANNUAL MEETING

If you have taken any part of the examination process during the Academy Meeting, you will be given an interview, regardless of whether you have completed all parts of the examination. This will be scheduled with the Diplomate Chair at a mutually agreeable time. You should contact the Diplomate Chair in the Section's Suite at the Annual Meeting Headquarters Hotel to schedule this interview. Your progress will be reviewed and helpful suggestions will be made by the Diplomate and Sub-Committee Chairs. If you have completed all of the requirements, you will be informed at this interview. Upon completion of the requirements, you will be nominated for the Diplomate in Binocular Vision, Perception, and Pediatric Optometry, which is granted by the Board of Directors (formerly referred to as the Executive Council) of the American Academy of Optometry. When you complete your requirements, it is requested that you attend the Annual Banquet on Sunday evening, where you will be introduced as a new Diplomate in Binocular Vision, Perception & Pediatric Optometry.

VII. APPLICATION PERIOD

The candidate has a five (5) year period from the date of acceptance of the application to complete the Diplomate requirements. Failure to satisfy the requirements during that period will necessitate a re-submission of your application and fee and retaking all three parts of the examination. You may elect to complete all three parts in one year or spread the individual parts over the five-year period.
REFERENCES

It should be understood that no reading list could be all encompassing due to the voluminous amount of published material. In addition, most books are prepared and published several years before the copyright date. As a result, we expect the Diplomate candidate to be current. This requires a review of recent journal articles. To prepare for the Diplomate examination, the candidate must pay close attention to the behavioral objectives and do whatever reading and review might be necessary to achieve competence in these areas.

The following is a list of suggested references:

Books


von Noorden GK, Maumenee AE. Atlas of Strabismus, 4th ed, St. Louis; Mosby, 1990


**Journals**

American Orthoptic Journal

Binocular Vision and Eye Muscle Surgery Quarterly

Journal of the American Optometric Association

Journal of Behavioral Optometry

Journal of Learning Disabilities

Journal of Optometric Vision Development

Journal of Pediatric Ophthalmology and Strabismus

Optometry and Vision Science