

Assessment Of A Child For Learning Related Vision Problems

Some children will present for diagnostic evaluation to determine whether a vision problem could be a factor contributing to learning problems.

What is involved in the evaluation?

Two broad visual system components are evaluated when we are investigating for a vision problem that could impact on learning:

- (1) Visual efficiency - comprising tests of visual acuity (clarity of sight), refractive error (long-sighted, short-sighted or astigmatism), accommodation (ability to change focus from distance to near), vergence (control of teaming between eyes) and ocular motility (control of following and locating eye movements)
- (2) Visual information processing - higher order neurological function including the non-motor aspects of visual perception (visual memory, memory of sequence, recognition of form constancy) and their integration with motor, auditory, language and attention systems.

How long does the evaluation take?

At least 2 visits are required to assess both Visual Efficiency and Visual Information Processing. Generally at the first visit a comprehensive evaluation of visual acuity, refraction, accommodation, vergence, colour vision and eye health will give an indication of how clear and comfortable vision is for completing tasks both far away and near. From this evaluation the optometrist should know whether glasses are required to achieve clearer vision, or whether eye exercises to improve visual efficiency are indicated.

Tests of visual perception skills (TVPS) generally requires a second visit, as the tests take approximately 45 minutes to complete. Generally the child will have better attention to the task when the tests are administered at a fresh appointment visit, rather than at the end of a comprehensive vision examination.

Additional tests can include Developmental Eye Movement (DEM) test that provides a measure of visual-verbal integration skills and indication of ability to make locating eye movements horizontally along rows, similar to the locating eye movements required for reading.

The Harrison Test provides a measure of Visual Attention Span (the number of digits that can be seen in one span and accurately recalled), a measure of blending (indication of phonemic awareness) and measure of word reading level.

What does it cost and what would Medicare cover?

The initial visit would be charged at the standard initial consultation rate and attract the usual medicare benefit.

A medicare rebatable paediatric fee may apply if a binocular vision problem is suspected that requires further testing (such as requiring cycloplegic examination). This fee attracts a medicare benefit (10943).

If the child is eligible for 10900 or 10905 (referred full consultation) then the consultation fees and paediatric fee will be bulk billed.

At subsequent visits, a consultation fee would be charged at the standard rate which would attract medicare benefit (this is usually bulk-billed for children).

Tests of visual perception (TVPS), DEM and Harrison Test are developmental evaluations that are not covered by the medicare schedule. Fees for administration of these tests are charged outside the medicare schedule and do not attract a medicare rebate.

TVPS - \$60.00 DEM - \$20.00 Harrison Test - \$20.00

Reports

Findings and recommendations are summarised in a Vision Report that is posted to parents. The report is prepared at the completion of all evaluations (i.e. after evaluation of visual perception skills appointment).

Referrals

Learning difficulties can arise from delays in developmental areas other than vision. This may include delays in Speech and Language, Balance and motor skills, Hearing and auditory processing. The optometrist may advise referral to an allied health professional for assessment in these other domains.

Some children may benefit from an independent assessment of current educational attainment. Referral to a support teacher skilled in early literacy and numeracy may be advised.