

**The MIST Kit consists of:**

- MIST Booklet
- Choice Card
- 3 Metre Tape Measure
- Black eye patch
- Information leaflets

These leaflets include:

1. **Information for Maternal and Child Health nurses - Vision Screening**  
This leaflet for Maternal and Child Health nurses describes the development of MIST, the testing, recording of results and referral.
2. **Information for Maternal and Child Health nurses - Referral for Vision Screening**  
This leaflet explains the procedure for referral after the vision screening has identified that the child has failed the MIST.
3. **Information for Families - Vision Screening**  
This leaflet provides families with information regarding vision screening.
4. **Information for Families - Referral for Vision Screening**  
This leaflet discusses referral options for families requiring further vision screening. Maternal and Child Health nurses can make suggestions as to the appropriate referral on this form.

The MIST was designed by the Department of Clinical Vision Sciences, La Trobe University, Victoria

The Melbourne Initial Screening Test (MIST) has been developed by the Department of Clinical Vision Sciences, La Trobe University, as a simple and quick screening test of vision for children aged 3.5-4.5 years. The MIST combines a letter matching task with a pass/fail testing protocol to determine whether a child has reduced vision in one or both eyes. The MIST is performed at 3 metres. Trials have shown the MIST to be as effective as the Sheridan Gardiner single optotype test in detecting children with possible visual defects.

### MIST Design

The letters used in the MIST are H, O, T, V, X. The difference between testing a child with the MIST compared to the traditional method lies in the protocol. With traditional tests, threshold visual acuity is measured, whereas the MIST uses a pass/fail protocol. That is, in order to pass, the child is required to identify only one level of visual acuity, 3/5 (6/10 equivalent).

The MIST is represented as a booklet, which is spiral bound to allow the pages containing the single optotypes to be flipped over with ease. A list of instructions is printed on the inside cover of the booklet. The booklet contains a series of large practice letters interspersed with two pictures, one stylised **cat** and the other a stylised **smiling face**. These have been incorporated to add a sense of play to the testing procedure. Both the large practice letters and the two stylised pictures are sufficiently large so that children with defective vision can see them, thus reducing any sense of failure experienced by the child. The **cat** also serves as a signal for the vision-screener to commence counting the five single **test** letters. A matching card with the five letters H, O, X, T, V and the pictures accompanies the booklet.

### Testing Procedure

Before testing the child, the room should be set up so that the light source (e.g. window) will be behind the child. Measure and mark a distance of 3 metres from where the child will sit. It is advisable to place the child on a seat behind a small table to ensure that the child does not lean forward and reduce the test distance to less than 3 metres. Place the **choice** card on the table. The examiner, while sitting beside the child, presents a sufficient number of practice letters to ensure that the child has grasped the concept of matching. Once the child has demonstrated the ability to match, the child's left eye is covered. The examiner moves to the measured distance of 3 metres from the child. Commencing from the front of the booklet, the examiner shows the 5 **practice** letters, then the **cat**. The examiner then shows the 5 **test** letters. If the child can match 3 or more of the **test** letters, the test has been passed. When only 2 or less letters are recognised, the test has been failed. Whether or not the child passes or fails the test, the smiling face is shown at the end of the test as a reward. Finally, repeat the test with the right eye covered.

### Recording of MIST results

The results are recorded by indicating the eye tested, the number of letters correctly identified, and whether this is a pass or a fail eg R=2 (fail) L=5 (pass)

### Referral

If the child 'fails' the MIST with one or both eyes, referral to an eye specialist is necessary.

**The Melbourne Initial Screening Test (MIST) has been designed to detect visual problems for referral purposes only and is not to be used as a diagnostic test.**

References: Brown S and Story I, 1998. A new approach to visual acuity screening for pre-school children. *Ophthalmic Epidemiology* 5 (1):21-27

Referral for further visual assessment is required if:

- 1) There is parental or Maternal and Child Health nurse concern
- 2) Results of the MIST screening on one or both eyes is 0, 1 or 2

Referrals are recommended to the family's usual source of specialist eye care. Families without a regular source of specialist eye care will require your advice regarding referral options.

The following steps in the referral process are recommended:

1. **Complete your referral letter**
2. **Provide referral options to parents**

This will require you to be familiar with appropriate service providers in your area. It is important to ensure that the practitioner to whom you refer the child has expertise in dealing with small children.

*Suggested options are:*

**Ophthalmologist** (a specialist medical practitioner who diagnoses and treats all aspects of eye problems). Referral to an ophthalmologist requires a referral from a general practitioner.

**Eye clinic at a public hospital.** A referral can be made via a general practitioner or directly to the hospital through the Hospital Casualty/Outpatients Clinic. Each hospital has a different referral system and you will need to make yourself aware of the procedure for your local hospital. At an eye clinic, the child will be examined by an ophthalmologist and an orthoptist.

**Optometrist** (primary eye care practitioner). Private optometrist addresses can be located in the telephone book, or via the internet Information about optometrists with a special interest in children can be sought from the Optometrists Association Australia (03) 9486 1700.  
<http://www.optometrists.asn.au/victoria/Home/tabid/289/language/en-AU/Default.aspxor>

A Children's Clinic exists at the Victorian College of Optometry in Carlton (03) 9349 7455.  
<http://www.truelocal.com.au/business/the-victorian-college-of-optometry/carlton>

**Orthoptist** (specialises in testing children's visual function and eye movements). Private orthoptists' addresses can be located in the telephone book or through the Orthoptic Association of Australia (03) 9521 9844. Contact with the local orthoptist or the orthoptist working with a private ophthalmologist may assist where there is a long wait for an ophthalmologist appointment.

**It is recommended that Maternal and Child Health nurses encourage families to enquire if there is a fee involved when booking an appointment.**