BrienHoldenVisionInstitute

VISION SCREENING

THINK

A child cannot see the board at school. How do you think this will affect his/her life?

A school has invited you to examine the children's eyes. It will take you too long to perform a full eye exam on all the children. What tests will you do to identify the children who require further testing?

WHAT YOU WILL LEARN

When you have worked through this unit you should be able to:

- Explain why vision screening is important
- Plan and conduct a vision screening programme
- Know when to refer a person after vision screening.

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VISION SCREENING

WHAT IS A VISION SCREENING?

- Most people only have an eye examination if they think they have a problem with their eyes
- Many eye problems do not have symptoms so people might not know they have a problem
- Vision screenings use quick and basic eye tests so we can:
  - Find out who needs a more detailed examination
  - Screen a large number of people within a short period of time.

WHY IS VISION SCREENING IMPORTANT?

Vision screening is important to:

- Find people who need a pair of glasses to see properly
- Find people who need to see an eye care worker or doctor
- Detect eye conditions early so that they can be treated before a person has permanent damage to their vision.

- **Remember that vision screening does not really tell us WHAT is wrong with somebody's eyes**
- **It just tells us that something MIGHT be wrong, which requires further examination.**

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ORGANISING A VISION SCREENING

WHO SHOULD UNDERGO VISION SCREENING?	• We should screen groups who are at risk of having undetected vision problems, such as: ○ People with diabetes ○ People over 45 years old ○ People from poverty stricken populations • We should screen groups who will gain the most benefit from early intervention, like preschool and school-aged children • Find out if there are any other at risk groups in your community. Who are they?
HOW DO I ORGANISE A VISION SCREENING?	• Think about groups of people that may benefit from a vision screening, such as: ○ Schools ○ Workplaces ○ Youth groups • Contact them and ask if you can conduct a vision screening for them • Arrange a date and time to come and do the screening • Follow up with a letter to confirm the arrangements what was discussed by phone • If the screening is to be done with children (under 18 years old) you need to send a consent form for parents to sign before the screening is conducted • Only children whose parents have signed a consent form can be screened.
WHAT EQUIPMENT DO I NEED?	 ***Figure 20-1: Equipment needed for vision screening***

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	• Distance and Near VA charts
	  ○ It is preferable to use an 'E' chart with a cut out 'E' so that people can show you which way the 'E' on the VA chart is pointing
	• Measuring tape or pre-measured rope
	  ○ To measure the exact distance to the VA chart (usually 3 metres or 6 metres, depending on the VA chart used)
	• Torch
	• Prism spectacles
	  ○ Plano in the right eye
	  ○ 6 base down in the left eye
	• +2.00D spectacles (or +2.00D in a trial frame)
	• Ishihara colour vision plates (if available)
	• Recording forms for the measurements (enough copies for the number of people to be screened)
	• Referral letters for the people found with poor vision during screening.

HOW DO I SET UP A VISION SCREENING?	• Choose a location with good lighting • Measure and set up a VA chart at 3 metres (or the correct distance for the VA chart you are using) • Place a mark on the floor to show the person where to sit / stand • Allocate a waiting area for the people who are waiting to be screened, where they cannot see the VA chart – to make sure they have not memorised the characters on the chart.

VISION SCREENING CAN DETECT UNCORRECTED REFRACTIVE ERROR:

- **Uncorrected refractive error is the leading cause of visual impairment in the world**
- **Vision screening can help us to detect people who have uncorrected refractive error, so they can be referred for an eye exam and glasses.**

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VISION SCREENING TESTS

ASK ABOUT SYMPTOMS AND DISEASES	• Ask the person if: ○ They have any trouble with their eyes ○ They have any diseases/conditions that could affect their eyes (such as diabetes or hypertension) • Refer the person for an eye examination if they: ○ Complain of bad vision at distance of near ○ Complain of headaches or sore eyes, especially after they have been reading for a while ○ Complain of poor night vision ○ Have been diagnosed with diabetes of high blood pressure.
ASK TEACHERS AND PARENTS ABOUT THEIR CHILDREN	• Refer if parents or teachers notice that the child: ○ Holds books very close to their eyes ○ Sits close to the television or black board ○ Squints or squeezes their eyes half-shut to look far away ○ Has poor concentration in class ○ Leaves out words or sentences when reading ○ Blinks or rubs their eyes a lot ○ Twists or tilts their head to use one eye more than the other.
MEASURE DISTANCE VISUAL ACUITY	• Use the letter or E chart at the correct distance (usually 3 metres) • If the person has spectacles for distance vision, they should wear their spectacles for the VA testing • The person should first cover their left eye, so you can measure the VA of the right eye • Ask the person to read the numbers or letters, or to identify the direction of the E's on the VA chart • Repeat for the left eye • Record the smallest line on the VA chart the person could correctly identify with each eye, and with both eyes together • Refer the person for an eye examination if: ○ VA is no better than 6/9 in either eye or with both eyes together.

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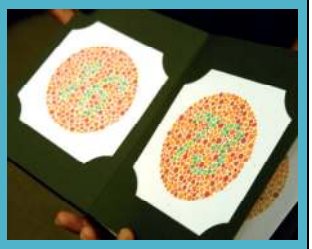
MEASURE NEAR VISUAL ACUITY	• If the person has spectacles for reading or near vision, they should wear their spectacles for the near VA testing • For young people (under 35 years old), hold the near chart at 20 cm • For people older than 35 years, hold the near chart at 40 cm • Ask the person to read the numbers or letters on the near chart, or to identify the direction of the E's on the chart • Record the smallest line the person could correctly identify • Refer the person for an eye examination if: ○ The person cannot identify the characters on the smallest line of the near VA chart (N6).

LOOK AT THE EYE WITH A TORCH OR IN GOOD LIGHT	• Look for abnormalities of the external eye
	• Refer the person for an eye examination if they have:
	  ○ Watery eyes, or a pussy discharge
	  ○ Red or painful eyes
	  ○ Drooping eye lids
	  ○ Lumps or bumps on or around their eye lids
	  ○ Pupils that are not the same size
	  ○ A white pupil
	  ○ An eye that turns out, in, up or down
	  ○ White patches on the cornea.

VERTICAL PRISM TEST Without prism With prism	• Place the prism spectacles on the person's face • Ask the person to look at a simple target like a square, and to tell you what they see • They should have double vision (see two targets) when they wear the prism spectacles • Refer the person for an eye examination if they only see one target when wearing the prism spectacles.
PLUS LENS TEST	• Place the +2.00 D spectacles on the person's face • Ask them to tell you the smallest line of letters, numbers or E;s they can correctly identify • Record the smallest line the person can correctly identify when wearing the +2.00 D spectacles • Refer the person for an eye examination if their VA is not reduced by at least 2 lines through the +2.00 D lenses.
COLOUR VISION 	• Use Plates 1 to 12 of the Ishihara colour vision book (if available) • Hold the colour vision book at about 75 cm from the person • Refer to the table in the book that comes with the colour vision test for the correct numbers the person needs to identify • If the person makes 2 or more mistakes, they have a colour vision defect • Although there is no need to refer a person who has a colour vision defect, it is good to report this to the parent or teacher.

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VISION SCREENING FORMS

The forms required to conduct a vision screening include:

- **Vision screening consent form**
  - Which you need to send to parents or guardians of children to be screened
  - This form is usually sent out a few weeks before the vision screening is conducted
  - Parents need to sign and return the form to provide their permission for their child to undergo vision screening
  - You can only conduct vision screening for a child if their parent has provided consent

- **Vision screening results (for adults)**
  - This form is used to provide adults with the results of their vision screening test
  - It lets people know if it is recommended that they undergo a more comprehensive eye examination

- **Vision screening results (for children)**
  - This form is used to provide parents with the results of their child's vision screening test
  - It lets parents or guardians know if it is recommended that their child should undergo a more comprehensive eye examination

- **Vision screening record keeping document**
  - This is a document you need to complete and keep on record
  - It contains the screening details of each person who has undergone vision screening, and whether or not they were referred for further eye examination.

Screening forms are usually printed on the letterhead of your hospital or organisation.
Examples of vision screening forms are shown below.

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VISION SCREENING CONSENT FORM

Dear Parent/Guardian,

As part of _____, we will be conducting vision screenings at your school on _____.

If you would like your child's vision checked, please fill out the consent form below, and return it to the school no later than _____.

If your child fails the vision screening, it will be recommended that he/she sees an optometrist or ophthalmologist for a more comprehensive eye examination, and this can be arranged at _____.

If you would like further information regarding the vision screening, please contact _____ on _____.

Yours sincerely,

_____
NAME AND POSITION OF PERSON ARRANGING THE SCREENING

_____

Child's Name:	
Date of Birth	
Class / Teacher's Name	

I give permission for my child to undergo a vision screening test

Signature of Parent / Guardian:		Date:	____ / ____ /____

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VISION SCREENING RESULTS (CHILDREN)

Dear Parent/Guardian,

As part of _____, we conducted a vision screening at your child's school.

Please find the results of the vision screening for your child:

Child's Name:	
Date of Birth:	
School:	
Class/Teacher:	
Date of Vision Screening:	

	Your child has **normal vision**, and at this time does not require further vision testing.

OR

	It is recommended that your child sees an optometrist or ophthalmologist for **further vision testing**. Vision screening showed they had trouble with: _____ _____ _____ _____ Please contact _____ on _____, or your local eye care practitioner to arrange an appointment.

Please note: *A "vision screening" is not a complete eye examination. While it does contain a series of tests to identify if there is a weakness in your child's eyes that may affect their vision, it does not involve checking the health of the eye.*

Signature of Screener:		Date:	
Name of Screener:			

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VISION SCREENING RESULTS (ADULTS)

Please find the results of your vision screening with _____ today.

Name:	
Date of Birth:	
Date of Vision Screening:	

	You have **normal vision**, and at this time does not require further vision testing.

OR

	It is recommended that you see an optometrist or ophthalmologist for **further vision testing**. Vision screening showed that you had trouble with: _____ _____ _____ _____ Please contact _____ on _____, or your local eye care practitioner to arrange an appointment.

Please note: *A "vision screening" is not a complete eye examination. While it does contain a series of tests to identify if there is a weakness in your eyes that may affect your vision, it does not involve checking the health of the eye.*

Signature of Screener:		Date:	
Name of Screener:			

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VISION SCREENING RECORD KEEPING DOCUMENT

Name of Screener:				Location of Screening:					F = Fail P = Pass			
Date of Screening:												
Name:	Age:	Sex:	Diabetes:	Symptoms:	Signs:	Presenting VA:		Near VA:	Plus lens:	Binocular Vision:	Colour Vision:	Refer?
						R eye	L eye					
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N
		F M	Y N						F P	F P	F P	Y N

All failures should be referred to an optometrist, ophthalmologist, or other eye care practitioner

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WHAT SHOULD I DO AFTER A VISION SCREENING

- Following a vision screening, it is very important to follow up – to make sure that people who had been referred for further eye examinations go to their referral appointments
- We usually don't conduct vision screenings unless there is an eye care practitioner available who will be able to conduct eye examinations for anybody who is referred
- It is also important to explain to people who have been for further eye examinations why they might have received spectacles and/or eye medications, and how to use these
- People should also be encouraged to return for regular eye check ups (as recommended by their doctor or eye care practitioner).

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SUMMARY – VISION SCREENING

WHAT IS A VISON SCREENING?

- Vision screening is a series of basic tests, conducted to find people with eye problems in the community
- It aims to find people with an eye problem so that the problem can be treated early
- It identifies people with an eye problem, but it doesn't provide much detail about what the problem is
- Vision screenings use simple and quick tests
- We usually conduct vision screenings for people who are a high risk of undetected eye problems.

WHAT TESTS SHOULD I DO IN A VISON SCREENING?

- Tests typically done in a vision screening include:
  - Asking about visual symptoms
  - Looking for signs of eye problems
  - Measuring VA (distance and near)
  - Plus lens test
  - Binocularity (using prism spectacles)
  - Colour vision
- Write down all the results of the vision screening for each person on a record sheet
- Provide people with the results of the vision screening
- Write referrals for anyone who fails the vision screening – they need a more comprehensive eye examination.

WHAT HAPPENS AFTER A VISON SCREENING?

- You need to follow up and check that the people you referred:
  - Go to their referral appointments
  - Understand how to use and care for their spectacles and/or medication
  - Return for regular eye checks as recommended by their doctor or eye care practitioner.

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TEST YOURSELF QUESTIONS

1. **What is the difference between a vision screening and a full eye examination?**

_____
_____
_____

2. **When do you need a consent form to conduct a vision screening?**

_____
_____
_____

3. **During a vision screening, a person tells you that they think their distance vision is not good. When you check their VA, it is normal. Should you refer them? Why?**

_____
_____
_____

4. **Name three places in your community that would benefit from having a vision screening conducted there. Why have you chosen each of these places?**

_____
_____
_____

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