

LOW VISION

THINK

Your uncle has just become blind. He is 40 years old and works as a fisherman. He has two children, a 15 year old and 10 year old.

What sort of problems do you think he will have? Can he keep his job? Can he look after his family? How do you think he will feel?

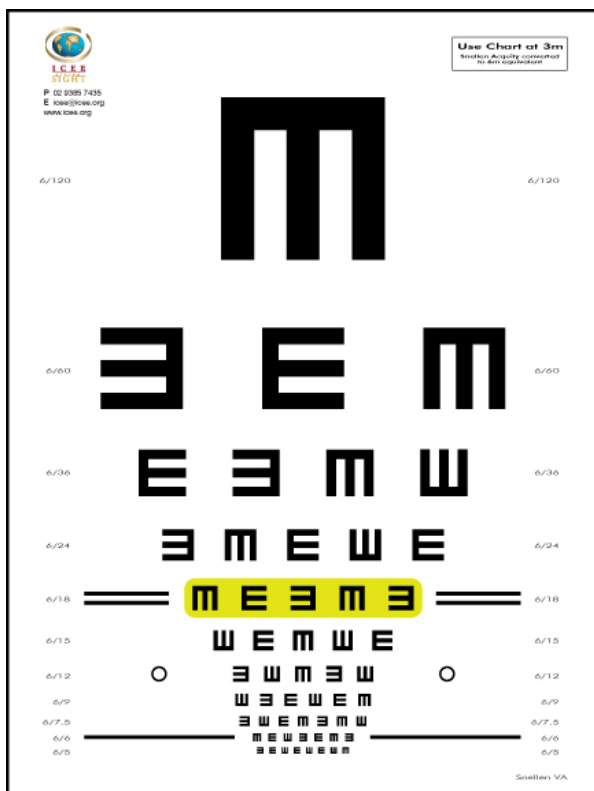
Is there anything that can be done to help him?

WHAT YOU WILL LEARN

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

- Identify what low vision is
- Describe ways of helping people with low vision
- Guide a person with low vision.

WHAT IS LOW VISION?



- Low vision is when a person has very poor vision that cannot be improved with spectacles, surgery or medicines
- A person with low vision can have poor central and/or poor peripheral (side) vision
- Poor central vision:
 - Defined as visual acuity less (worse) than 6/18 (20/60) in the better eye (Figure 1)
 - Affects the ability to perform tasks such as reading and recognising faces

Figure 1: A person with low vision cannot see the letters below the line indicated on the chart (visual acuity < 6/18)

- Poor peripheral (side) vision:
 - Defined as visual fields less than 20 degrees in diameter (Figure 2 & 3)
 - Affects the ability to move around.

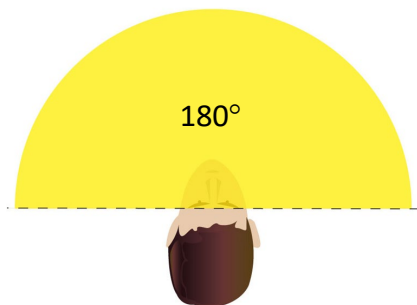


Figure 2: A normal visual field of slightly more than 180 degrees

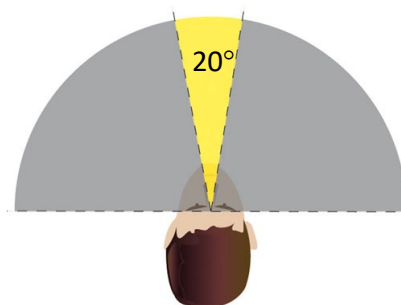


Figure 3: This person would be legally blind as their visual field is only 20 degrees



Blindness does not always mean that a person sees nothing at all.

A person who is legally blind may be aware of:

- shapes and shadows
- light and darkness.

WHY IS LOW VISION A PROBLEM?

People with low vision can experience many difficulties, including:

- At school – reading, writing, recognising faces, communicating and playing
- At work – fishing, farming, counting, communicating and sewing
- At home – cooking, personal hygiene, shopping, looking after children
- Getting around – crossing streets, identifying a bus, moving in crowds
- Entertainment – playing sport, board games, watching TV and reading.

People with low vision are often unnecessarily excluded from these every-day activities.



- **Even though we can't improve the visual acuity of somebody with low vision, we can do things to make life easier for the person.**

HOW CAN I HELP SOMEONE WITH LOW VISION?

- Think about the person first, and the impaired vision next:
 - Be comfortable around a person with low vision
 - Speak at a normal pace and volume
- Many people with impaired vision have learnt to do most things for themselves
- There are times when they might need a little help.

WHAT SHOULD I ASK?	Always ask the person if they need help, ask how you can help <ul style="list-style-type: none"> • Are you having difficulties with any tasks you would like to do or need to do? • Are you having any difficulties getting around? • Would you like to find out about low vision aids and techniques you can use to do the tasks you need and want to do?
WHAT SHOULD I DO?	Complete a full eye examination: <ul style="list-style-type: none"> • To check if they have a treatable eye condition • A person with low vision may benefit from high-powered spectacles. Refer to a low vision clinic if available for: <ul style="list-style-type: none"> • An eye examination • Prescription for low vision aids • Training and guidance to help your patient perform everyday tasks. <p>If it is not possible for you to refer a person to a low vision clinic, the information below on low vision aids, techniques and training on how to guide a person with low vision will be helpful.</p> Advocate: <ul style="list-style-type: none"> • We can make our community a safer place by talking to community leaders about changing things that are a danger to people with low vision.

TECHNIQUES TO HELP PEOPLE WITH LOW VISION

There are ways of making things easier to see, such as:





- Getting closer to the object
- Using contrast to make some tasks easier (Figure 4)
- Having good light, but reducing glare
- Making sure that the light is directed towards the task, not shining into the eyes
- Avoiding very reflective surfaces
- Wearing a hat and sunglasses to help with glare
- Using other senses like hearing or touch
- Using tactile markers (like Velcro dots) to mark things such as key-holes.



Figure 4: Identifying food (such as sugar) on a plate is easier if there is a contrast in colour

LOW VISION AIDS

Low vision aids are tools that can make objects easier to see, thereby helping to improve the every day life of people with low vision.

TYPE OF LOW VISION AID:		ACTIVITIES IT COULD BE USEFUL FOR:
	<p>Spectacles with a high add power [photo courtesy of Aravind Eye Hospital, Low Vision Clinic: ICEH]</p> <ul style="list-style-type: none"> • High add spectacles can be very useful for near tasks • They can allow a large field of view • They may also have prism incorporated into them to help reduce eye strain 	<p>Near tasks such as:</p> <ul style="list-style-type: none"> • Reading • Writing
	<p>Hand magnifiers [photo courtesy of Sarah Squire: ICEH]</p> <ul style="list-style-type: none"> • Hand magnifiers are very popular, since they are simple to use, light weight, and not too expensive • They make an object or words look bigger and bolder, to make it easier to see 	<p>Usually best for tasks that do not last too long, such as:</p> <ul style="list-style-type: none"> • Reading labels on medicine bottles • Looking at prices in a shop • Looking at money
	<p>Stand magnifiers [photo courtesy of Margreet Hogeweg: ICEH]</p> <ul style="list-style-type: none"> • Stand magnifiers are easy to keep steady and to hold • They are placed directly on the object the person is looking at 	<p>Tasks that may take a little time, such as:</p> <ul style="list-style-type: none"> • Reading or writing • Sewing • Crafts and hobbies
	<p>Head or spectacle mounted magnifiers</p> <ul style="list-style-type: none"> • Tasks are made easier because the person does not need to hold the magnifying glass 	<p>Tasks where the person needs to have both hands available, such as:</p> <ul style="list-style-type: none"> • Crafts and hobbies • Sewing

	<p>Telescope</p> <p>[photo courtesy of UNIFESP-B Brazil: ICEH]</p> <ul style="list-style-type: none"> Both monocular and binocular devices can be useful for people with low vision 	<p>Useful for looking at things that are far away, such as:</p> <ul style="list-style-type: none"> Identifying traffic signs or bus numbers Reading the blackboard in class
	<p>Closed Circuit Television (CCTV)</p> <ul style="list-style-type: none"> Uses a video camera to project a magnified image of an object onto a television screen 	<p>Can help with doing many different tasks, such as:</p> <ul style="list-style-type: none"> Looking at the school board Reading or writing Viewing photos Crafts and hobbies
	<p>White cane</p> <ul style="list-style-type: none"> Useful to help direct the person when walking or moving around 	<ul style="list-style-type: none"> Moving around more safely Letting other people know that the person has a problem with their vision

GUIDING SOMEONE WITH LOW VISION



- ***Always ask if you can help.***

- Ask if the person needs help
- Stand next to the person
- Touch the back of the person's hand with the back of your hand
- You should have your arm relaxed at your side, so the person can hold your arm just above your elbow
- The person should stand near your side, about one step behind
- Not every person with low vision wants to be guided this way – so you should always ask if this is the right way for them
- When you come to a narrow space (like a doorway), move your guiding arm across the small of your back
 - The person will move behind you
 - If they don't, tell them what is happening
 - After you pass through the space, move your arm back to your side.



Figure 5: Guiding a person with low vision
(Graphic courtesy of Padhmavathi Bashyarangan: LVPEI)

IF YOU NEED TO CHANGE SIDES:	<ul style="list-style-type: none"> • If you need to change sides: • Tell the person • Stop before changing sides • The person can place their hand on your back before letting go of your arm • Then the person can move across and hold your arm.
IF YOU COME TO A CLOSED DOOR:	<ul style="list-style-type: none"> • Tell the person whether the door opens towards or away from them • Go through the doorway with the person on the same side as the hinges of the door.
IF YOU COME TO STAIRS:	<ul style="list-style-type: none"> • Guide the person onto the stairs squarely, not at an angle • Tell the person whether the stairs are going up or down • Let the person use the handrail • Make sure you are one step ahead of the person • Stop and tell the person when you have reached the end of the stairs.
IF YOU WALK ACROSS A ROAD:	<ul style="list-style-type: none"> • If you walk across a road: • Guide the person to the edge of the road squarely • Do not cross the road at an angle.

LOW VISION ORGANISATIONS

- These organisations can help people with low vision by:
 - Providing low vision aids
 - Educating people on how to use low vision aids
 - Giving them tips for getting around
 - Providing counselling and support
- Find local organisations that can help people with low vision in your community
- Refer people to these organisations if they have low vision or if they are blind.

TEST YOURSELF QUESTIONS

1. Name three things that someone with low vision might have difficulty doing:

2. Name three simple techniques to make everyday tasks easier for people with low vision:

3. Why do some people with low vision use a white cane?

4. Name at least three other low vision devices, and which tasks each of these might be useful for:

5. What does it mean when we say somebody is legally blind?
