BrienHoldenVisionInstitute

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 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.

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WHAT IS LOW VISION?

- Low vision is when a person has poor vision that cannot be improved by 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

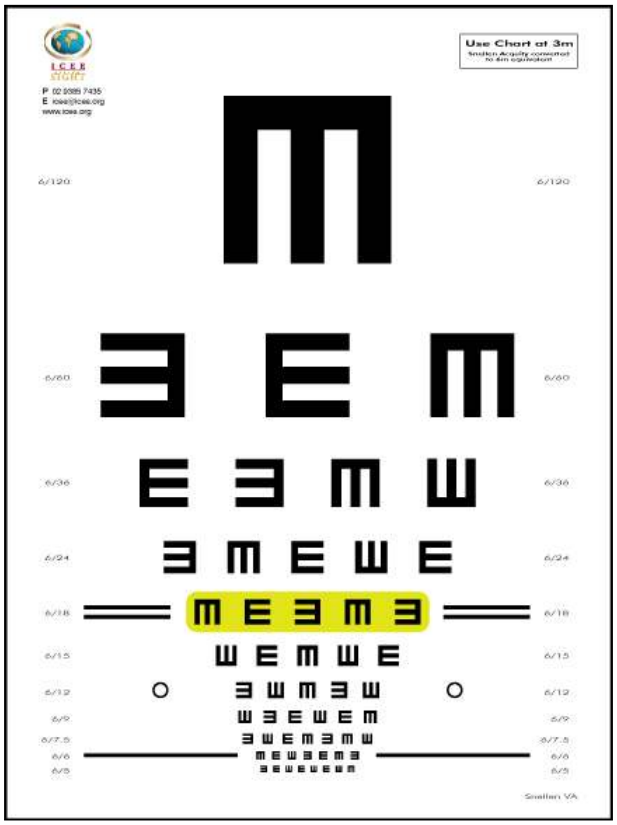

Figure 16-1: A person with low vision cannot see the letters lower than the line indicated on the chart (visual acuity < 6/18)

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

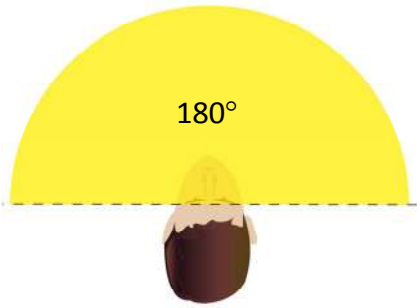

Figure 16-2: A normal visual field of 180 degrees

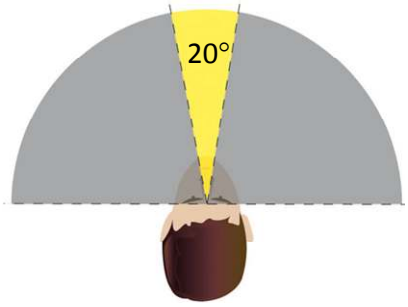

Figure 16-3: This person would be legally blind as their visual field is only 20 degrees

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Blindness does not always mean that a person sees nothing at all.
A person who is legally blind may be able to see:

- **shapes and shadows**
- **light and dark.**

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 – reading, writing, recognising faces, 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 movies, 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.

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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** • 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 to be able to do the tasks you need to do and want to do?
WHAT SHOULD I DO?	**Refer for an eye examination:** • 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 for:** • An eye examination • Prescription for low vision aids • Training and guidance to help them perform everyday tasks. 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. **Advocate:** • 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.

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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
- Make sure that the light is directed towards the task, not shining into the eyes
- Avoid very reflective surfaces
- Wear a hat and sunglasses to help with glare
- Using other senses like hearing or touch
- Use tactile markers (like Velcro dots) to mark things such as key holes.

Figure 16-4: Identifying food (such as sugar) on a plate is easier if there is a contrast in colour

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LOW VISION AIDS

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

TYPE OF LOW VISION AID:	ACTIVITIES IT COULD BE USEFUL FOR:
 Spectacles with a high add power *[photo courtesy of Aravind Eye Hospital, Low Vision Clinic: ICEH]* • High add spectacles can be very useful for near tasks • They can allow a large field of view • They may also have prism incorporated in them, to help reduce eye strain	Near tasks such as: • Reading • Writing
 Hand magnifiers *[photo courtesy of Sarah Squire: ICEH]* • 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	Usually best for tasks that do not last too long, such as: • Reading labels on medicine bottles • Looking at prices in the shop • Looking at money
 Stand magnifiers *[photo courtesy of Margreet Hogeweg: ICEH]* • Stand magnifiers are easy to keep steady and to hold • They are placed directly on the object the person is looking at	Tasks that may take a little time, such as: • Reading or writing • Sewing • Crafts and hobbies

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 Head or spectacle mounted magnifiers • Tasks are made easier because the person does not need to hold the magnifying glass	Tasks where the person needs to have both hands available, such as: • Crafts and hobbies • Sewing
 Telescope *[photo courtesy of UNIFESP-B Brazil: ICEH]* • Both monocular and binocular devices can be useful for people with low vision • Useful for looking at things that are far away	Useful for looking at things that are far away, such as: • Identifying traffic signs or bus numbers • Reading on the blackboard in class
Closed Circuit Television (CCTV) • Uses a video camera to project a magnified image of an object onto a television screen	Can help with doing many different tasks, such as: • Looking at the school board • Reading or writing • Viewing photos • Crafts and hobbies
 White cane • Useful to help direct the person when walking or moving around	Moving around more safely • Letting other people know that the person has a problem with their vision

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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.

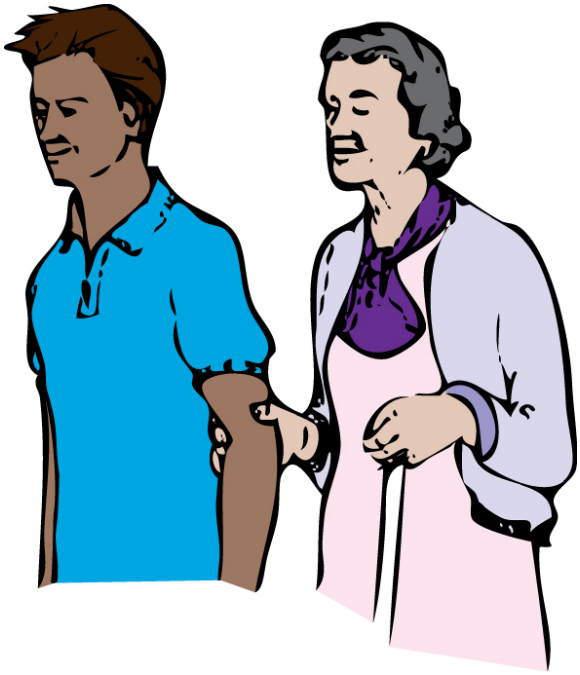

Figure 16-5: Guiding a person with low vision

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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:

- 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:

- 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:

- 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
  - 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.

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SUMMARY - LOW VISION

WHAT IS LOW VISION?

- Low vision is poor vision that cannot be improved by spectacles, medicines or surgery.

HELPING SOMEONE WITH LOW VISION

- Ask if they need help
- Be comfortable around the person
- Think about the person first and the low vision second
- Refer for an eye exam
- Talk to community leaders about making things safer for people with low vision.

WHAT CAN WE DO TO MAKE THINGS EASIER TO SEE?

- Recommend the use of low vision aids
- Techniques to enhance any remaining vision such as:
  - Good contrast
  - Light shining onto the task
  - Hat and sunglasses to reduce glare
  - Using tactile markers.

WHAT ELSE CAN WE DO?

- Refer to a low vision organisation that will be able to provide help.

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TEST YOURSELF QUESTIONS

1. **Name three things that someone with low vision might have problems 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?**

_____
_____
_____

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