

Practical Help for Low Vision



 Hadley

Introduction

Welcome to Hadley's Practical Help for Low Vision! This guide is organized into sections; each addressing a specific aspect of living with low vision and offers information and solutions to maintain independence. At the end, you'll find a list of resources for products, services and additional information.

Throughout the guide are references to audio and video recordings. These can all be found on our website at lowvision.hadley.edu. The recordings cover a wide range of topics from marking your stove and oven and managing medication to indoor mobility and using adaptive devices.

There is a solution and a path to independence for almost any obstacle posed by low vision. We believe that those with low vision do not have to give up doing the things they enjoy. However, they may need to learn to do things differently.

Together we can help those with low vision continue to thrive at home, at work and in their communities. Contact Hadley with questions, suggestions, or requests for speakers or presentations. Call us at **800.323.4238** or email us at info@hadley.edu.



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How to Use QR Codes

Step One:

Open the camera app on your iPhone or iPad. Download and open QR Code Reader app if on an Android device.

Step Two:

Hold the device's camera up to the QR code.

Step Three:

No need to hit the shutter button, your iOS device will automatically recognize the QR code and provide you with an on-screen notification. (Make sure you have a mobile signal or you're connected to Wi-Fi.)

Step Four:

Tap the notification to be taken to the destination of the QR code.



What Is Low Vision?



With low vision, vision can't be fully corrected by prescription lenses, medical treatment or surgery, but the person still has usable vision.

Consider this functional definition of low vision from the National Eye Institute (NEI): Low vision means that even with regular glasses, contact lenses, medicine, or surgery, people find everyday tasks difficult to do. Reading the mail, shopping, cooking, seeing the TV, and writing can seem challenging.

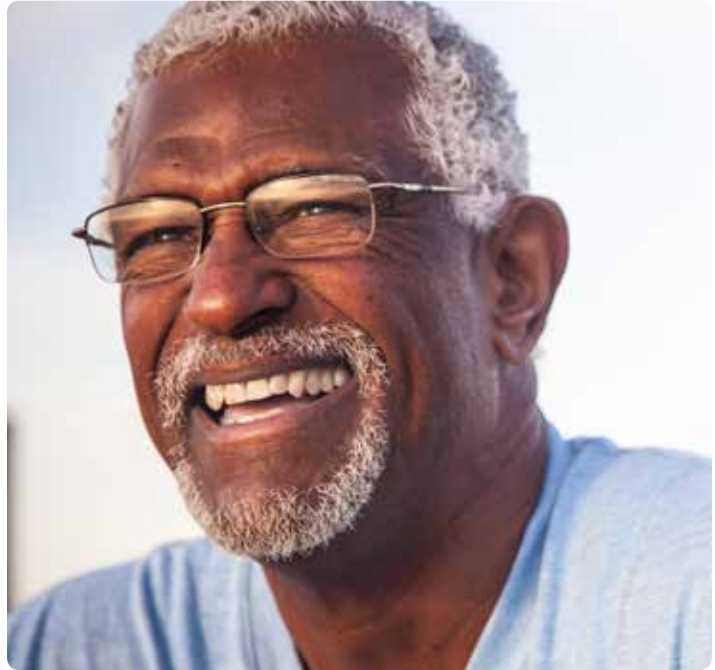
According to the most recent U.S. Census Bureau information, more than 3,000,000 people of the population ages 65 and older, or approximately 7.2 percent, have a vision impairment.

Low vision may involve a reduction in visual acuity, the visual field, or both.

How Does Vision Change over Time?

Eye and vision changes occur as people reach adulthood and age.

- With low vision, the vision can't be fully corrected by prescription lenses, medical treatment or surgery, but the person still has usable vision.
- The lens is no longer crystalline and transparent; instead, it develops a deeper yellow, amber, or brownish hue, called "brunescence."
- The lens is no longer flexible and elastic. It cannot easily change its shape to focus on people and objects that are either close or at a distance.
- The iris muscle weakens and cannot adjust the size of the pupil opening to regulate the amount of light entering the eye.



As a result of these physical changes within the eye, certain vision changes happen to almost everyone, including many younger people with low vision:

- reduced ability to perceive color
- reduced ability to perceive contrast
- decreased ability to focus close-up
- problems with depth perception
- need for more light
- increased sensitivity to glare
- problems with light-dark adaptations

Vision Simulations

Right, photo as seen with typical vision.
Below, simulations illustrate this same view, but with various visual impairments.



Macular Degeneration



Cataracts



Glaucoma



Diabetic Retinopathy



What Are Major Causes of Low Vision?

Major causes of low vision include the following:

- age-related macular degeneration (AMD)
- cataract
- glaucoma
- diabetic retinopathy

What Is Age-Related Macular Degeneration (AMD)?

- AMD affects central vision.
- AMD is a gradual, progressive, painless deterioration of the macula. The macula is the small, sensitive area in the center of the retina that provides clear central vision.
- Two types of AMD exist: wet AMD and dry AMD. Most AMD starts as the dry type, and in 10 to 20 percent of individuals, it progresses to the wet type.

- Vision loss from dry AMD progresses more slowly over time than that from wet AMD. However, as both wet and dry AMD progress over time, they both ultimately affect vision in the same way.
- Many people with AMD describe it as having a constant gray or blank spot directly in the center of vision that can't be moved out of the way.
- These gray or blank spots make it difficult to do many kinds of close or detailed work.
- It becomes difficult to read in low light; in fact, most lighting levels consistently seem too low.
- Stronger eyeglasses don't seem to help with reading, either.
- Even though most lighting levels seem too low, a person with AMD may also be extra sensitive to bright lights and glare.
- It becomes more difficult to recognize people's faces and identify even close friends and neighbors by sight.
- It becomes frustrating and difficult to find things set down or misplaced, even in familiar surroundings.
- It becomes more difficult to locate the edges of stairs and judge the height of curbs, because contrast sensitivity is reduced.
- Straight lines, such as sentences on a page, edges of buildings, or the line down the center of a highway, appear wavy or distorted.

No cure exists for dry AMD. Treatment with supplements, under the guidance of an ophthalmologist, may slow progression. For wet AMD, treatment options include laser surgery and injectable drugs. As AMD rarely affects peripheral vision, AMD does not typically lead to complete blindness.

What Is a Cataract?

- A cataract is a progressive cloudiness, hardening, and yellowing of the normally transparent (or crystalline) lens of the eye.
- A cataract is not a tumor, nor is it a “film” or tissue growth that develops over the cornea, or front surface of the eye.

At present, the only intervention for cataracts is cataract surgery. In most cases, cataract surgery can restore clear vision unless the person has an additional eye disorder that causes vision loss.

What Is Glaucoma?

- A group of eye diseases that damage the optic nerve.
- These diseases cause a characteristic loss of peripheral vision.
- Increased intraocular, or within-the-eye, pressure (IOP) usually, but not always, accompanies glaucoma.

Although no cure exists, glaucoma can be treated with medication and surgery. If left undiagnosed and untreated, however, glaucoma can result in blindness.

What Is Diabetic Retinopathy?

- The primary vision problem caused by diabetes is diabetic retinopathy.
- Diabetic retinopathy occurs when diabetes damages the small blood vessels that nourish tissue and nerve cells in the retina.
- It can cause “blind spots,” changeable vision, blurred vision, and peripheral vision loss.

Although no cure exists for diabetic retinopathy, it may be treated with laser and injectable drugs. If retinal detachment occurs, surgery may be an option.



What Services Exist?

There is life after vision loss! Vision rehabilitation services help people with vision loss continue to live independently and maintain their quality of life. These services include low vision therapy, orientation and mobility, and vision rehabilitation therapy. There are numerous ways anyone can make a positive impact on the independence level of a person with low vision. The following sections of this publication will help you get started.

Adjustment to Low Vision



A person experiencing vision loss that is not correctable commonly learns about his or her condition from an optometrist or ophthalmologist. These medical professionals are experts in the clinical causes of and treatments for vision impairment. However, they often do not address the real concerns of their patients, which are the functional implications of the diagnosis.

People diagnosed with untreatable low vision are often concerned how their eye physiology specifically impacts their daily life and level of independence. When an eye doctor says, “There’s nothing more that can be done,” what he or she likely means is “There’s nothing more I can do for you surgically.” But the patient hears the message, “There’s nothing more that can be done.” In many cases, unfortunately, the discussion ends there.

However, despite this sometimes discouraging message, much can be done to help a person function with low vision. There is indeed hope and life after vision loss! A wide range of vision rehabilitation services enable adults with visual impairments to continue living

independently. By concentrating on maintaining functioning and finding solutions to difficulties with daily activities, you can assist with adjustment.

Getting Help

Encourage the person to consult experts who have knowledge of the adjustment process. Vision rehabilitation refers to comprehensive services provided by highly trained professionals. These services can restore function after vision loss, just as physical therapy restores function after a stroke or other injury.

Vision rehabilitation professionals include the following:

- low vision therapists (LVTs)
- orientation and mobility (O&M) specialists
- vision rehabilitation therapists (VRTs)

Low Vision Therapists

These professionals teach people with low vision how to use residual vision. They provide instruction in optical devices, non-optical devices and assistive technology. They help determine the need for environmental modifications in the home, workplace, or school. They provide this service in conjunction with ophthalmologists and optometrists who specialize in low vision. In addition, low vision therapists provide counseling in coping with vision loss.

Low vision therapists perform functional low vision evaluations related to activities of daily living, literacy and communication, health management, and safety awareness. They also provide functional evaluations related to educational and vocational pursuits, leisure and social activities, and participation in community events.

Orientation and Mobility (O&M) Specialists

These professionals teach safe and independent indoor and outdoor travel skills to people who are visually impaired, including people with low vision. These skills include how to use the long white cane, electronic travel devices and public transportation. O&M specialists also teach the human guide (also known as sighted guide) technique and pre-cane skills.

Pre-cane skills include self-protective techniques, which are special ways of holding the arms in front of the body to prevent painful collisions with objects.

O&M instruction develops or reestablishes the ability to move safely and independently through indoor and outdoor environments. These environments may include the home, community and city. O&M specialists may provide counseling in coping with vision loss.



Self-Protective Techniques

Using the back of the hand to feel walls or doors prevents injury to the fingers.

Vision Rehabilitation Therapists (VRTs)

These professionals are specialists in independent living. They provide instruction and guidance in adaptive independent living skills to adults who are visually impaired. These skills include cooking, reading and writing, communication skills, assistive technology, and low vision device use. Other skills include home repair, personal self-care, indoor travel, financial management, and recreation and leisure activities.

These skills enable adults with vision loss to live safely and independently and to participate in community life. In addition, vision rehabilitation therapists (VRTs) provide counseling to help people cope with vision loss.

What You Can Do

Restoring independence after vision loss can be a lengthy process. Emotional adjustment has several stages and can take time. Each individual has a different experience, and adjustment can be further complicated by other life or health changes. Therefore, when providing assistance, listen to the person's own priorities. Let the person make his or her own decisions about assistance needed.

However, many “quick fixes” exist that can easily and almost instantly improve a person's quality of life. Low vision poses some common barriers that have simple solutions. Identifying these “life hacks” can bring immediate positive change and broaden the perspective on what is possible for the future.

Suggest solutions for telling time, recreational reading, pouring liquids, recording and retrieving information, remote controls, and using the phone.

Telling Time

Persons with low vision often struggle to see the wristwatch, bedside clock, or wall clock. When trying to maintain a schedule, they are constantly reminded of their vision loss. **Solution:** Talking and large print clocks and watches all make checking the time easy to accomplish independently.



Large Print Watch

The face of the watch is white, with contrasting hands and numbers.

Recreational Reading

When print books and magazines are no longer accessible due to vision loss, people may abandon recreational reading. For ardent or even casual readers, this is a major loss. **Solution:** Suggest talking and large print books.

- Recommend the National Library Service for the Blind and Physically Handicapped (NLS), a free library service available to U.S. residents whose visual impairment makes it difficult to read regular print. Local participating libraries mail NLS talking books, magazines, and playback equipment at no cost.
- Local libraries are a good source of large print books as well as audiobooks, which are usually available on CD.

Pouring Liquids

The simple task of independently pouring one's own cup of coffee can become difficult with low vision. **Solution:**

- A liquid level indicator ensures that cups and mugs are filled to the correct level and eliminates frustrating guesswork.
- Using contrasting colors, such as white containers for dark-colored liquids like coffee, can also help.

Recording and Retrieving Information

Making shopping lists, preserving addresses and writing down and reading telephone numbers can all be difficult with low vision. **Solution:** Bold-line paper and black markers make print easier to write and read.

Television Remote Controls

Even for persons with good visual acuity, operating the TV remote can be confusing. **Solution:** Jumbo television remote controls take the frustration out of changing channels and adjusting volume.



Jumbo Remote Control

Large buttons make this easier to see and use than a standard remote.

Using the Telephone

Telephone keypads can be small and hard to see. **Solution:**

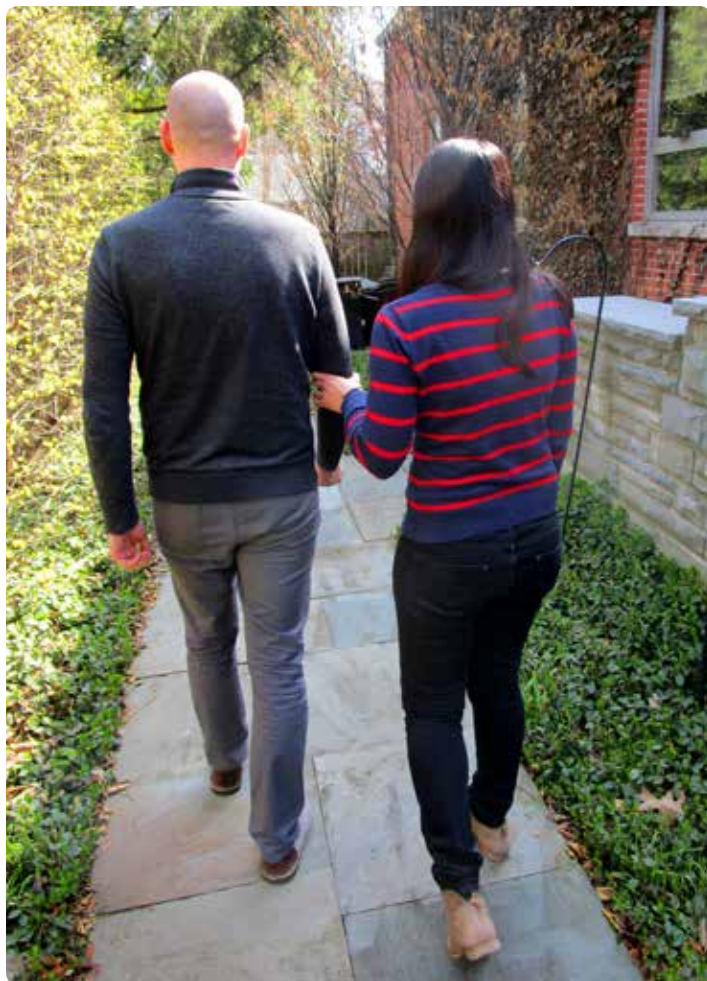
- Put a tactile mark on the #5 key. This can serve as the “home” key and help the person orient tactually to the entire keypad. This is similar to using “home” keys on a computer keyboard.
- Telephones are available with large numbers that are easier to see.

Small Changes = Hope

The previous suggestions are just a few of the adaptations and devices that make living independently with low vision realistic and possible. The following sections serve as an introduction to many more.

While not every adaptation is appropriate for everyone, just restoring independence in one or two areas can make a huge difference in outlook and quality of life. Incremental positive changes in levels of independence add up to hope and life after vision loss.

Getting Around Safely



When a person is new to vision loss, one of the biggest challenges is traveling independently. Even moving about the home, apartment or room may be difficult at first. This section introduces strategies and techniques for navigating and traveling safely with low vision. Being familiar with ways to move safely through routine environments helps people live more independently. No matter how long people have been visually impaired, or what

type of visual loss or other disabilities they have, they can learn to move around more safely.

The information in this section does NOT replace training from a certified orientation and mobility (O&M) instructor. An O&M instructor teaches safe and independent indoor and outdoor travel skills to people who are blind or have low vision. These skills may also include how to use the long white cane, electronic travel devices and public transportation. It is recommended that a person contact a state or private rehabilitation agency to ask for the assistance of a certified O&M instructor. The section on Adjustment describes O&M instructors in more detail.

This section presents some basic skills that can be learned and practiced to increase safety and independence. They include the human guide technique, self-protective techniques and trailing. It also describes modifications that promote safety.

The Human Guide Technique

A person used as a sighted guide is really another “tool” to enable safe travel. The human guide technique is easy to use and becomes comfortable with practice, and it can be used with or without a cane. Note that just because someone uses the help of another person for mobility does not mean that he or she is not independent. Most people who are visually impaired use the human guide technique at times, as people often travel together for company.



Learn more about human guide techniques: Listen to Basics of Using a Human Guide at lowvision.hadley.edu/Human_Guide.



When serving as a human guide, consider standard guidelines:

- Make contact by touching the back of your hand to the arm of the person to be guided.
- The person with low vision always holds onto your arm; you do not hold onto the arm of the person with low vision.
- You may be on the right or the left of the person you are guiding. (This decision may be influenced by personal preference or other physical factors.) The guide being on the left may make it easier for the person to negotiate stairs, doors and crowded hallways.

- The person grasps your arm just above the elbow. His or her thumb is on the outside of your arm with the fingers on the inside, as though holding a pop or soda can. This protects the person's fingers.
- The person holds your arm firmly, but not in a viselike grip. Your arm is kept close to your side.
- Walk to the side of the person and about one-half step in front of him or her. This way, the person can feel your movements and can anticipate any changes in terrain.
- Walk at a comfortable speed.

The human guide technique can be altered if the person has other disabilities, health issues or other needs. For example, if the person is short, he or she may want to grip your arm somewhere between the wrist and elbow, instead of above the elbow. Likewise, if the person is tall, he or she may want to place a hand on your shoulder.

Self-Protective Techniques and Trailing

Self-protective techniques are special ways of holding the arms in front of the body to protect oneself from painful collisions with objects. In familiar environments, such as a residence, these techniques help people avoid bumping into an object and becoming injured. Although accidents can happen, self-protective techniques and trailing can reduce such occurrences.

Self-protective techniques include the upper protective and lower protective techniques. Trailing is another helpful technique. In addition, consider environmental modifications for safety.

UPPER PROTECTIVE TECHNIQUE

This is also known as the upper-hand-and-forearm technique, or the upper bumper technique. With this technique, with this technique the person uses one arm as a bumper to protect the upper body, particularly the head and face. **Suggest these steps:**

1. Stretch one arm straight in front at shoulder height. Use either the right or left arm.
2. Move this arm up to face level and bend it at the elbow with the palm facing out.
3. Keep the palm facing away from the body, with fingers relaxed and cupped, or close together.
4. Keep the palm at face level.
5. Extend the palm so that it is slightly farther away from the body than the elbow. The hand will be 12 inches (30 cm) away from the face. This allows the hand to detect any objects in front.

This technique protects from hazards at head level, such as tree branches, bushes and open cabinet doors. This is also a particularly good technique to use when it's necessary to bend forward to locate a dropped object or drink from a water fountain. But this technique does not completely protect the shoulder and chest area. It will not protect below the waist or warn of drop-offs like curbs, holes and steps.



Learn more protective techniques:
Listen to Getting Around at
lowvision.hadley.edu/Getting_Around.



LOWER PROTECTIVE TECHNIQUE

Also known as the lower-hand-and-forearm technique or the lower bumper technique, this technique protects the lower part of the body, the waist, hip and upper leg areas. **Suggest these steps:**

1. Hold one arm diagonally downward, as though pointing to the floor.

2. Move this arm so that the hand faces the opposite thigh.
3. Keep the arm about 12 inches (30 cm) away from the body.
4. Point the fingers downward and cup them together, with the palm facing inward. This minimizes the possibility of jamming a finger when running into an obstacle.

The lower protective technique is useful for short periods of time in familiar environments. It provides protection from bumping the lower body into objects like the edge of a table or a chair not in its usual place. Indeed, this technique is useful for locating desks, tables, and chairs.

TRAILING

Most people, with or without vision impairments, use trailing from time to time, such as when trying to find the bathroom in the middle of the night. This technique enables one to keep a straight line, find a door or other landmark, walk through a building, or explore the layout of a room. With trailing, the person moves his or her fingers along a surface such as a wall, table edge or the back of a couch. Suggest these steps when using a wall as a surface:

1. Stand close to the wall with a shoulder perpendicular to it.
2. Touch the wall with the back of the hand nearest to it.
3. Cup the fingers of that hand slightly to protect them.
4. Gently move the backs of the fingers, particularly the knuckles of the index and middle fingers, along the wall while walking.
5. While walking along the wall, keep the fingers in contact with the wall.

Listen Now



Learn more about trailing: Listen to Trailing Techniques at lowvision.hadley.edu/Trailing.



6. For the most protection, use either the upper or lower protective technique while trailing. Simply put the other hand in the correct position for either of these techniques.
7. When coming to a doorway, take care not to get off course and veer into the room. Use the upper or lower protective technique when crossing the doorway.



Check out the videos **Safe Mobility at Home Part 1 and 2** on our website at lowvision.hadley.edu/Getting_Around.



Modifications for Safety

Consider making some simple environmental modifications to increase safety and encourage independence. Many of these tips benefit everyone, not just people with visual impairments:

- Use nonskid wax on floors, or cover floors with nonskid textured rugs.
- Get rid of throw rugs. Either use rugs with rubber backs or avoid this kind of rug.
- Eliminate clutter.
- Tape down or remove electrical cords from paths.
- Move or get rid of low tables and tables with sharp edges.
- Close cabinets and drawers, and push in chairs when leaving the table. Teach others to do the same.
- Remind family or roommates to not move furniture without notification.
- Immediately mop up spills.
- Place delicate and valuable furnishings out of the way.

- Increase lighting in areas that seem hazardous, such as hallways and stairways.
- Install railings by all stairs.
- Paint the edges of stairs and ramps, as well as the handrails, a contrasting color. Or use special tape, such as anti-slip tape or hazard tape, available online and in hardware and home improvement stores.

Confidence in Getting Around

Concerns about safety may sometimes cause people with low vision to unnecessarily withdraw socially or limit their activities. With the right strategies and techniques, low vision need not result in a loss of safety and independence. Feeling confident about traveling in familiar or unfamiliar environments is an important part of adjusting to visual impairment.



Light and Lighting



For people with low vision, light and lighting are extremely important. Even small changes to lighting can result in better acuity (the clarity and sharpness of vision) and can provide increased contrast and better depth perception. These alterations can also lessen eye fatigue. This section presents some fundamentals about the role of light and its impact on people with low vision. This will enable you to help people with low vision create the best lighting

environment for their individual circumstances.

The Lighting Paradox

For people with low vision, appropriate lighting must have two qualities: It must be of higher intensity, and it must produce less glare. In other words, people with low vision require added light on the specific thing they want to see, but less light on the things they don't.

Illumination: The Need for More Light

As people grow older, they generally need three to four times more light to perform everyday activities. Seeing clearly enough to read, write or do homemaking tasks requires brighter, more focused light.

This need for increased light occurs gradually. Many people aren't aware that their lighting needs and requirements have changed. People with macular degeneration or other age-related vision loss are particularly affected by insufficient light. Solutions include:

- Illuminate hallways and stairs.
- Choose blinds that allow you to control direct sunlight.
- Combine sheer curtains and shades to control and diffuse light.
- Relocate furniture or objects that block useful sunlight.
- Relocate furniture or objects that create shadows.
- Install lighting on the underside of kitchen cabinets or in closets.
- Use task lighting for all close activities like reading or sewing. Choose task lights with adjustable arms, to optimize the angle of illumination.



Inside Glare

A room entirely encased in windows or highly polished floors creates glare.

Increased Sensitivity to Glare

Although more light is necessary as people grow older, too much light can also cause problems. Too much light can produce glare, which is light that does not help you see clearly or better. For

example, outdoor sunlight and reflected light from highly polished floors can make it difficult to see clearly. Brightly lit interiors, like those in department stores or offices, can reduce acuity.

Glare is more of a problem as people age because of physiological changes in the eye. These changes make it more difficult for the eye to absorb the same amount of light that it did before. The excess light that cannot be absorbed becomes glare. Suggest these solutions:

- Use matte wall paints and finishes, not high-gloss ones. Avoid white or very bright-colored paint.
- Cover shiny flooring with carpet.
- Use window treatments that control sunlight intensity.
- Use opaque lamp shades, and position them below eye level.
- Use dimmer switches to control levels of overhead lighting.
- Wear lenses or filters to block or absorb high-intensity light.



Get more lighting tips in the **Simple Home Adjustments** page at lowvision.hadley.edu/Home_Adjustments.



Other Lighting Considerations

In addition to illumination and glare, other factors in the visual environment can affect functional levels. These include light-dark adaptation, contrast, types of light, and light color.

Light-Dark Adaptation

As people become older, adjusting to changes in lighting levels, or when going between bright and dark areas, can take much longer.

These abrupt transitions can cause falls and injuries. For example, leaving a dim building lobby and walking out into bright sunlight, or entering a dark movie theater from a brightly lit lobby, can be hazardous.

In situations like this, a good strategy is to stop, pause, and wait until the eyes have adjusted sufficiently. If possible, step to the side to avoid blocking entryways and exits. No one should feel pressured to keep moving forward. This is when accidents can occur!

Contrast

Light-colored objects are easier to see if set against a dark background and vice versa. Visual contrast can make a big difference when identifying objects and surroundings. Consider and suggest these simple modifications that increase contrast:

- Use dark switch plates and outlets on light-colored walls.
- Avoid monochromatic decor.
- Use carpet colors that contrast with walls.
- Mark door frames, stair steps and stair railings with contrasting paint or tape.
- Put cloths, pillows or blankets of contrasting color on furniture.
- Mark countertop and cabinet edges with contrasting colors.
- Use tablecloths that contrast with dishes or the kitchen floor.

Light Color

The color of artificial light can greatly affect acuity, fatigue levels, glare, and even eye health. In general, lights and lightbulbs that fall into the red/yellow end of the spectrum are the best choice. Bulbs that emit light in the blue end of the spectrum can cause negative outcomes. “Blue” light causes the photoreceptors in the retina to

work many times harder than “red” light does. This explains, for instance, why long periods spent under blue fluorescent lights causes eye fatigue.

To choose bulbs that emit light in the red end of the spectrum, select ones that are in the low end of what is called the “Kelvin scale.” Bulbs below 3,500 degrees on the Kelvin scale are optimal. Most bulbs carry a code, the last two digits of which indicate its Kelvin rating. For example, if the last two digits on the bulb read “35” that means the Kelvin rating is 3,500 degrees.

Consider replacing cool white and blue bulbs and LEDs with warm white LEDs and pink/red bulbs. This can make a very positive impact on the functional acuity of people with low vision.

Types of Light

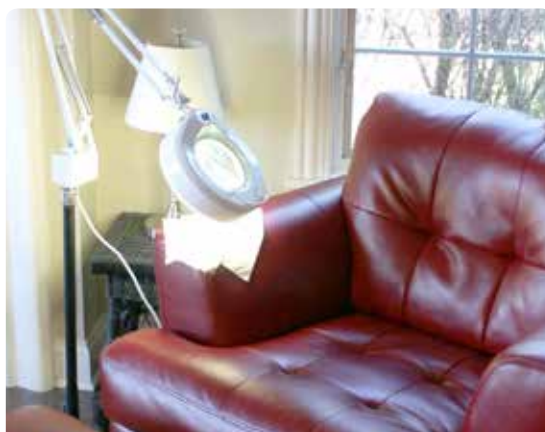
Compare the following types of light:

- natural sunlight
- incandescent light
- fluorescent light and compact fluorescent lamps (CFLs)
- LED lighting

NATURAL SUNLIGHT

Sunlight is the most natural type of light for most daily living needs, but can present problems:

- It is difficult to control the brightness and intensity of sunlight.
- Sunlight can create glare.
- Natural sunlight can also create shadows, both indoors and outdoors, which can create problems with depth perception.



Task Lighting

Good task lighting illuminates only what needs to be seen, without creating glare.

INCANDESCENT LIGHT (BASIC LIGHTBULBS)

Light from incandescent light is continuous, stable, and does not “vibrate,” unlike fluorescent light that can have a marked “flicker effect.” Incandescent light is also very concentrated. Thus, it is best for spot illumination on near tasks or close work, such as reading, sewing and crafts.

Many governments throughout the world have passed measures to phase out incandescent lightbulbs. The aim is to encourage the use of more energy-efficient lighting alternatives, such as compact fluorescent lamps (CFLs) and light-emitting diode (LED) lamps.

FLUORESCENT LIGHT AND COMPACT FLUORESCENT LAMPS

Fluorescent bulbs are energy efficient, produce limited heat and can last for years. Fluorescent light does not create shadows, as does incandescent light. Fluorescent light generally does not mimic natural sunlight; instead, fluorescent lights commonly emphasize the blue-violet end of the visible light spectrum. So fluorescent lighting generally does not help with the brightness of near visual tasks, such as reading, writing or crafting.

Fluorescent light is not stable—it can flicker and produce a “strobe” effect that is noticeable by people with low vision. This flickering may cause problems for people with seizure disorders. Some experts believe that fluorescent bulbs and CFLs can cause additional health problems as well. Some risks may be minimized by using “double-envelope” bulbs, where the spiral tube is enclosed in a glass or polycarbonate cover. The U.S. Food and Drug Administration advises that people should not use single-envelope CFLs at distances closer than 1 foot (30.5 cm).

Also, fluorescent bulbs, including CFLs, contain mercury, a potentially dangerous substance. Used CFL bulbs must be disposed at a toxic waste depot; you can’t just throw them in the garbage. If one breaks, many government-recommended steps

exist for cleanup because of the mercury content. Therefore, urge caution when replacing CFL bulbs! Or consider and recommend using different types of bulb instead.

LED (LIGHT-EMITTING DIODE) LIGHTING

LED bulbs are very energy-efficient to operate and achieve full brightness instantaneously, which is important for people with low vision. They cost more initially than incandescent lightbulbs, but they have a long life-expectancy of approximately 50,000 hours. LED bulbs are encased in hard plastic covers and will not break easily if dropped. Also, LED bulbs do not contain mercury, unlike CFLs. Since LED lamps radiate almost no heat, LED lighting works well for people with low vision as task lighting in flex-arm desk or floor lamps. LED lighting works best when the light source is close to the task.



Lighting Needs
Lighted entryways are safer and reduce difficulties with light-dark adaptation.

Create the Best Light for You

The best lighting environment for a person with low vision is the one that meets his or her individual circumstances. Each eye condition results in different lighting needs, and each person functions with his or her vision loss in unique ways. Through trial and error, one is able to discover ways to modify illumination, lessen glare, use contrast, deal with light-dark adaptation, and choose types of lighting. All these modifications can optimize functional vision.

Marking and Labeling



People with typical vision often take for granted how much they depend on sight for the countless small decisions they make every day. Choosing a key to unlock the front door, setting the microwave to warm a cup of coffee, and operating a thermostat are tasks they do with a quick glance. Someone new to vision loss, however, quickly realizes how much he or she relied on vision to do the most routine activities. What were once small, automatic actions are now obstacles to be overcome. This can be frustrating!

But people also take for granted how much they use the tactile sense in everyday life. Operating the television remote, finding a quarter in a pants pocket, and turning off an alarm clock first thing in the morning do not require using any vision at all. Fortunately, it is easy to create tactile cues that work just as successfully as visual ones. It is also simple to create visual cues that are more appropriate for reduced acuity. Tactile marks and easy-to-see labels can restore the ability to independently navigate the many tasks of daily life.

Organization

Marking and labeling is more successful when the living environment is well organized. For example, having shirts all together in one place in the closet makes it easier to find a specific shirt. Even if different-colored shirts are marked with tactile cues, it will still be difficult to find the green one if it is with the sweaters or jeans. Marking various flavors of soup helps differentiate them. But this system will be confusing if soup cans are mixed up with the beans or tomatoes. **Suggest these tips:**

- You don't need to organize an entire room at one time. Doing a section at a time makes the process more manageable.
- First, make an inventory. Then organize in a way that is helpful to you.
- Fight clutter! Separate possessions into things you use often, things you seldom use, and things you never use. Get rid of the things you never use and find logical places for the rest.
- Simplify. For example, some people buy only black socks so they don't need to worry about mismatched socks.
- Designate a specific place for each item, especially important ones like purses or keys.



Organizing the Closet

A consistent system of organizing closets makes clothing identification easy.

Listen Now



Get more tips on Marking and Labeling everything from food to appliances at lowvision.hadley.edu/Marking.



- Always return things to the same place. Teach family members and roommates to do likewise.
- Ask family members and roommates to not move any household items without informing you first.
- Keep items used together near each other. For example, in the pantry, keep the box of spaghetti noodles next to the jar of pasta sauce. In the closet, keep entire outfits together.
- Keep similar items together. For example, in the pantry, keep soup cans together, and have baking ingredients all on one shelf. In the closet, keep ties of the same color on the same hanger. Hang pants together and shirts together.
- Use containers, like baskets, trays and shoe boxes, and have specific containers for specific items.
- Organize the contents of drawers. Use resealable plastic bags, ice cube trays, egg cartons, or shoe boxes as dividers. This allows you to separate small objects, making them easier to locate.

Watch Now



Check out the videos **Organizing the Bathroom, Safety in the Kitchen** and more at lowvision.hadley.edu/Home_Adjustments.



Marking and Labeling Materials

There is no limit to the materials that can be used to mark and label household items. Suggest these everyday items:

- rubber bands or hair elastics
- ribbons
- electrical tape
- adhesive tape
- refrigerator magnets, especially ones shaped like letters

- safety pins
- felt-tip markers
- permanent marking pens
- index cards
- file folder labels
- sticky notes
- adhesive dots
- adhesive letters
- glue
- fingernail polish
- puff paint
- fabric or textile paint
- Velcro
- sandpaper
- buttons
- paper clips
- pipe cleaners
- bread or garbage bag ties



Marking with Dots
Label common microwave functions with tactile dots so they are easy to locate.

Many of these items are tactile: they can be felt. For people with useful remaining vision, labels with bright or contrasting colors may be helpful. Specialty companies sell a number of useful products:

- bump dots (raised dots with adhesive backing)
- Hi-Mark pens (pens with liquid plastic that dries quickly, creating permanent raised dots that are easy to feel)
- magnetic labels

Newer labeling systems use digital technology to produce audio labels. These encoded paper labels contain recorded messages, and a special scanner reads the label aloud. These labeling systems enable the person to create labels with complicated information, such as recipes or medication instructions.

Marking and Labeling Strategies

When setting up a marking and labeling system, consider the different living spaces in the home. Keep the marking and labeling system simple and uncomplicated. The following sections suggest strategies for each household area or room.

KITCHEN

A variety of techniques exist for identifying settings on appliances and other items. Discuss ways to mark and identify oven, range and microwave settings, as well as food products, measuring cups and salt shakers.

OVEN AND RANGE

- Put at least two tactile markers on the oven temperature dial. Maybe put one mark at 350 degrees Fahrenheit and one at the Off position, if the dial does not stop at that point.
- Add raised markers for commonly used functions, like broiling.
- If the oven has digital controls, mark the “bake,” “start,” “stop,” and “up” and “down” arrows.
- Memorize the tactile position of the bake and start buttons. This may enable you to automatically set the oven to a default of 350 degrees Fahrenheit.

Watch Now



Learn more marking and labeling tips for the kitchen in **Cooking and Kitchen** at lowvision.hadley.edu/Cooking.



- The up and down arrows may adjust oven temperature by 5-degree intervals. Each time you press an arrow, an audio “beep” sounds. Counting these beeps is an accurate way to change oven temperatures above or below 350 degrees Fahrenheit.
- Put tactile marks on the surface of the stove around each range dial, indicating the low, medium, high, start, and stop positions.
- Most range dials have a raised indicator line that you can feel when it points to the setting mark.

MICROWAVE

- Most microwaves have flat-surfaced digital control screens. Add a bump dot, or small piece of Velcro, on the start, stop and 1-minute settings. That’s all you need for warming up leftovers or reheating a cup of coffee.
- For more complicated cooking, you may want to mark and then memorize the tactile location of additional buttons.

FOOD ITEMS

- Cans: Organize cans according to contents. Maybe label cans of similar foods, like soup for instance, with a system of rubber bands. One rubber band can indicate noodle soup, two rubber bands tomato soup, and so forth.
- Frozen foods: Cooking directions on frozen food packaging are often printed in very small font. Use a black marker to write the type of food and the preparation directions on an index card. Attach the index card with a rubber band to the package.
- Boxes: Items such as cake mixes can be hard to tell apart. Use a system of notches. With a metal file, make notches on the top of each box: one notch for angel food cake, two notches for chocolate cake, and so on.

LIVING AREAS

A variety of adaptations exist to make the home fully accessible for low vision. Suggest these ideas:

- Use one or two rubber bands around an exterior doorknob to identify it in an apartment hallway. Raised numbers or bold contrasting numbers on the door may be useful as well.
- Mark keys with tactile marks. Keep your room key or the house key you use most often on a separate ring.
- Raised markers work well on the telephone keypads. Put one small raised marker on the number 5 key. This can serve as the “home” key, and you can use it to determine the location of the other keys.
- Mark the channel, volume, and power buttons on your television remote with Velcro or some other easy-to-feel tactile material.
- Make older “dial type” thermostats accessible by using tactile marks. The interior of the dial contains an arrow. Mark this arrow with a dot. Then on the exterior of the dial, put a dot on the temperature setting that you’ll typically want. When you line up the two dots, you’ll have set the thermostat.
- Some digital thermostats already are equipped with tactile buttons.
- Identify items like CDs or talking books with large print labels. Attach these labels with rubber bands, if necessary. Use audio labels if you want to include more lengthy descriptions of each item.



Marking Personal Items

Use a label to differentiate shoes that are similar in style and contrast.

BEDROOM

Being able to match and coordinate clothing and accessories not only improves personal appearance but significantly raises self-esteem. So clothing identification is an area of primary concern. Offer the following suggestions:

- Identify a garment's color using safety pins. For example, use one safety pin for black and two safety pins for blue.
- Packages of differently shaped buttons (e.g., squares, circles, diamonds) are available. Sew a distinctly shaped button inside a garment to designate a particular color. For example, maybe decide that circle-shaped buttons mean the color green.
- If your garments have tags, alter these tags to distinguish between similar items of different colors. Maybe leave the tag of the green sweater intact and cut out the tag of the gray sweater.
- To make your own labels, use permanent markers on iron-on label tape.
- Use fabric or textile paint to label clothing.
- For two or more pairs of similar shoes, label one by putting tape or another tactile material on the inside of the shoes. For shoes with heels, mark a part of the heel that's not visible.
- Keep shoes in their original boxes, labeling boxes in large print.
- Use Velcro, which comes in various shapes, for tactile labels on containers or hangers.

BATHROOM

The section Staying Healthy presents many ways to mark and label personal care items often stored in the bathroom. Review these strategies:

- Write on the surface of the product in large print using a laundry pen or permanent marker. If the marker doesn't show up well, put a piece of white tape on the product and write on that.

- If print larger than 2 inches (5 cm) high is needed, write the label on a 3-by-5-inch (7.5 by 12.5 cm) card and fasten the card to the product with tape or a rubber band. If the cards may be exposed to water, consider laminating the cards.
- Consider a color-coding system. For example, maybe put a large red sticker or piece of red tape on a tube of sunscreen.
- Sometimes you need only a mark that you can see or feel. For example, put a heavy dab of nail polish on the medium heat setting of the blow-dryer.
- If a tube is too small for a label, put it in a plastic bag and put the label on or in the bag itself.
- Something as simple as a rubber band wrapped around a tube, bottle or other container may be enough to identify it.
- Personal care supplies used in the shower or tub need water proof labels or markings.
- Wrap a rubber band around a shampoo bottle. Put two rubber bands around the conditioner bottle, about 1 inch apart.

Listen Now



Learn more about organizing and marking prescriptions in **Health and Wellness** at lowvision.hadley.edu/Health.



Identify with Ease

When vision is no longer an accurate or effective system of identification, people often cope by limiting their choices. Happily, there is an alternative! Using raised markers and labels enables people with reduced vision to have as many choices as they want and to identify options with ease and accuracy. Raised markers and labels let people continue to live life to the fullest.

In the Dining Room



Dining with friends and family is, for most people, a fundamental source of enrichment and enjoyment. But persons with vision loss may find themselves avoiding social events that involve food because of fear of embarrassment. Dining may now present unexpected challenges. For older adults, a diagnosis of vision loss may compound a loss of community interaction that already exists. Older adults often face barriers to socializing because they lack transportation or have health complications.

No one should miss the pleasure of eating with others because of low vision. Fortunately, easy techniques can quickly restore independence in the dining room.

Exploring the Table

Suggest exploring the place setting before the meal is served or provide a verbal description. It may help to visualize where utensils, plates, glasses, and cups are in a standard place setting.

Recommend these strategies for exploring a table:

- Keep your fingertips slightly in contact with the tabletop. Don't raise your hands in the air or extend your fingers, as this may result in knocking over a glass.
- Curl your fingers slightly, tips pointed down and relaxed.
- Use a fan-style search pattern. In other words, hands are moved slowly to explore the table in a fan-shaped pattern.

Describe how to use the fan-style search pattern:

1. Put both hands in front of you, close together, starting at the edge of the table. Keep the palms facing down with the fingertips slightly curled. Depending on where the plate is, your fingers may or may not touch the bottom rim of the plate.
2. Move your right hand to the right and your left hand to the left slowly. Notice anything that you come in contact with.
3. Bring both hands back together where they were before and move your hands forward about the length of your fingers.
4. If the plate is in the way, put one hand on the left side of the plate and the other on the right side of the plate.
5. Repeat the left- and right-hand movement pattern, being sure to overlap a little where your hands last explored.

Suggest keeping the sleeves away from the plate when searching near the top of the plate. It's also wise to explore butter dishes carefully, as the butter may not be wrapped or covered.



Learn more tips on going out for a meal by listening in to **Getting Around** at lowvision.hadley.edu/Getting_Around.



Recommend these tips regarding the water glass:

- Use the tips of your fingers to determine its size and shape.
- Run your fingers up the side of the glass and grasp it near the top. This gives you information about the height of the glass.
- Use temperature and possible condensation for clues as to whether the glass is full.
- Pay attention when setting the glass down. Avoid placing it on the edge of a knife or other item.

Watch Now



Check out the video **Measuring Spices** at lowvision.hadley.edu/Spices.



Pouring Beverages

Recommend these techniques for pouring drinks without spilling:

- Always begin with a flat surface.
- Put the spout of the pitcher or pouring container on the rim of the glass or cup.
- Make sure that the spout of the pitcher or pouring container and the rim of the glass or cup are touching each other.
- Hold the pitcher in one hand, and with the other hand, hold the glass. Touch the rim of the glass to the underside of the pitcher spout and lower the glass to a flat surface. Pour slowly.

Watch Now



Check out the video **Pouring Devices** on our website at lowvision.hadley.edu/Pouring.



- A simple way to tell when a glass is getting full is to listen to the sound change as it fills up.
- Pour the right amount with the “dipstick” technique. To use this method, put your index finger just inside the rim of the glass so you can feel the liquid when it reaches the top. Note: Use this technique only with cold liquids to avoid possible scalding. Also, this method may not be sanitary or appreciated by guests!
- Use color contrast to make liquids more visible. For example, use a light-colored mug for coffee and a darker glass for milk.

Exploring the Plate

If the diner is not sure what’s on a plate, there’s nothing wrong with asking a sighted companion. The clock-face technique may be useful when describing where specific items are on a plate.

Think of the plate as the face of a clock, with 12 o’clock at the top, 6 o’clock at the bottom, 3 o’clock to the right, and 9 o’clock to the left. Entrées are almost always served at the 6 o’clock position. So the meat may be located at 6 o’clock, the mashed potatoes at 10 o’clock, and the green beans at 2 o’clock.

To identify what’s on the plate without assistance, suggest using



Cutting Technique

Use your silverware to determine the shape of the food items on a plate.



Join the Conversation!

Our monthly *What’s Cooking?* discussion group is a great way to learn low vision cooking and dining tips. Learn more at hadley.edu/cooking.

Watch Now



For more dining tips, watch
Exploring Food on Your Plate at
lowvision.hadley.edu/Exploring_Plate.



a fork to determine the firmness, texture, consistency, and shape of the items. For example, the texture and consistency of cod is different than that of braised potatoes or peas. The cod will be in bigger pieces or maybe one large piece. The braised potatoes will be bite-sized pieces and somewhat irregularly shaped, depending on how the potato was sliced. Peas tend to roll around, and their small, round shapes make them difficult to stab with a fork.

Use a “Pusher”

Suggest using bread and crackers as “pushers”:

- Hold a piece of bread or a cracker in one hand, and use it to push or maneuver food onto the fork or spoon.
- Use bread and crackers to keep food that is near the edge of the plate on the plate.
- If bread or crackers are not available, use another utensil, such as a knife, as a pusher.

Cutting Meat

Cutting meat may be a challenge. If the person has difficulty with manual dexterity or has painful arthritis, asking for assistance may be the best option. Otherwise, a few simple techniques can help. Recommend practicing with meat that doesn’t have bones, tough gristle, sauces, or gravy. For example, try thick slices of ham or turkey, boneless chicken breasts, or hamburger patties. Suggest these steps:

1. Think of the fork as an extension of your finger, and use it to determine the size and shape of the meat.
2. Locate an edge or side on the meat.
3. With your nondominant hand, insert the fork tines about a bite-sized distance from the edge of the meat. Position the fork so that the outside curve of the tines face the center of the meat.
4. Hold the knife in your dominant hand with your pointer finger on the back of the knife.
5. Put the blade of the knife along the back of the fork tines.
6. Before cutting, move the tip of the knife from one edge of the meat to the other, to see how long the cut should be.
7. Hold the meat with the fork so that it doesn't move.
8. Begin cutting with the knife, using a back-and-forth sawing motion.
9. Use your fork to judge the weight of the piece you just cut. If it feels too heavy, you may want to cut it again.

Offer these steps, if the piece needs to be cut again:

1. Hold the piece with the fork.
2. Trace around it with the knife point to judge its size.
3. Cut if needed.

Specific Adaptations for Dining

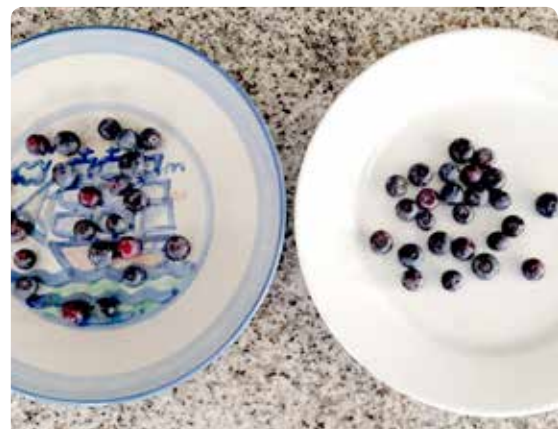
Consider adaptations to the dining room. For example, controlling lighting and glare can make meals more pleasant for people with low vision. The following strategies may help:

- Use adjustable blinds or window coverings to control light from windows.
- Adjust window blinds to direct sunlight upward, toward the ceiling.

- If overhead lighting is too bright, use lower-wattage bulbs to reduce brightness.
- Some overhead lights hang from a link chain. If the light hangs too low and causes glare, raise it by fastening a lower link to a higher link.
- If a tabletop is shiny, use a matte tablecloth to reduce glare.
- If possible, place food in a consistent manner from meal to meal (meat at 6 o'clock, starch at 10 o'clock and vegetable at 2 o'clock).
- Other diners should be encouraged to verbally inform the person with low vision when they are joining or leaving the table.
- When leaving the table, people should push in their chairs.
- If food items are served on a buffet, large print labels can be used to identify them.

Make use of contrast in the dining area. Use placemats and napkins that contrast with the table or the dishware. Colorful chair cushions that contrast with the surroundings make seats easier to see.

Tableware comes in a variety of colors and design, although white is the most common. Consider how different colors of tableware can be used for good contrast with certain meals. If the meal consists of an entrée on a bed of white rice, a colored plate provides more contrast than a white one. If the meal consists of meat and vegetables, a white plate would probably be better.



Poor vs. Strong Contrast

Plates with busy patterns reduce contrast and make food difficult to locate.



Relax and Enjoy!

With simple techniques, some patience and some practice, dining with confidence is a realistic goal for people with low vision. Independence in dining does more than increase convenience and safety. It ensures that visual impairment does not interfere with enjoying the company of friends and family. Bon appétit!

Staying Healthy



When vision loss is recent, even simple routine tasks may now present a challenge. Small things like putting toothpaste on a toothbrush may be frustrating. Everyday tasks like identifying medication may be difficult. The good news is some simple tips, techniques and tricks can solve many personal care issues. Some are very easy to learn and do, while others may require practice.

Organizing Personal Care Products

It's easier to find personal care products when they are organized. Being able to find what is needed, when it is needed, saves time and energy. Suggest these strategies:

- Get rid of clutter.
- Have suitable containers, drawer organizers and baskets to keep things organized.
- Organize similar things together.
- Organize items by how they are used.
- Keep the things used most often in easy reach, close to where you use them.

Strategies for Safety

Suggest and follow strategies for safety. For example, the bathroom is the logical place for using many personal care items. But the bathroom can be a dangerous place. Hazardous bathroom activities can include bathing, showering, getting out of the bath or shower, and using the commode. Evaluate this room and consider what can be done to make it safer.

Many of these tips benefit everyone, not just people with low vision:

- Purchase nonskid rugs or mats.
- Buy towels, washcloths and bath mats in colors that contrast with the tub and tile.
- Put a rubber-grip bath mat inside the tub. It should have a textured surface to prevent slips and suction cups on the bottom to keep it in place.
- Install a grab bar on the edge of the tub or a railing on the shower wall.
- Increase lighting in areas that seem hazardous, such as over the tub and shower area.
- Replace a white toilet seat with one of a contrasting color.

Watch Now



Find more great tips: watch the video **Organizing the Bathroom** at lowvision.hadley.edu/Organizing_Bathroom.



Identifying and Labeling Personal Care Supplies

After organizing personal care products, the next step is choosing ways to identify them. The person with low vision will want to consider:

- Is my vision always reliable for identifying personal care products? Or does it fluctuate?
- Are large print labels legible to me?

If not, suggest different methods for identifying supplies. Most people who are visually impaired use three ways to identify products: location, characteristics, and labeling. Labels can be large print or tactile.

Location

The first way to identify a product is by its location. For example, suppose tubes of toothpaste and arthritis cream are the same size. If the person with low vision always keeps the arthritis cream by the bed in the nightstand, he or she will recognize the cream by its location. Likewise, if the person always keeps the toothpaste by the bathroom sink, he or she won't confuse it with the arthritis cream that's in the bedroom.

Characteristics

The second way to identify something is by its characteristics. Recommend using all the senses. The size, shape, weight, texture, smell, or sound of a product will tell something about it. For example, it could be larger or smaller than similar items. A regular-size tube of toothpaste will probably be larger than a tube of antibiotic ointment. The toothpaste will also smell different than the ointment. One tube may have a large screw on its cap, and the other may have a smaller cap.

Labels

The third way to identify something is by making and using labels. If a product is difficult to identify, a label may be the best solution. Depending on the person's level of vision, large print labels, together with magnifiers and good lighting, may help. If not, suggest tactile labels or marks that can be felt.



Labeling Medication

A liquid medication is sealed within a plastic bag and labeled in large print.

Making Labels

Suggest these strategies for making large-print labels:

- Write on the surface of the product in large print using a laundry pen or permanent marker.
- If the marker doesn't show up well, put a piece of white tape on the product and write on that. White duct tape in different sizes is available at most home improvement, hardware and office supply stores.
- If print larger than 2 inches (5 cm) high is needed, write the label on a 3-by-5-inch (7.5 by 12.5 cm) card and fasten the card to the product with tape or a rubber band. Cards that may be exposed to water should be laminated.

Watch Now




Find more great tips: watch the video **Marking Bathroom Items** at lowvision.hadley.edu/Marking_Bathroom.




If the person's color vision is accurate, suggest a color-coding system:

- Colored stickers and tape are readily available at office supply stores.
- Maybe put a large red sticker or piece of red tape on a tube of arthritis medicine.
- Perhaps stick something bright orange on the outside of a container of summer items such as sunblock or bug spray.
- Keep the color-coding system simple. An elaborate system does no good if it's not easy to remember what colors mean.



Watch Now

Find more great tips: watch the video **Marking Prescriptions** online at lowvision.hadley.edu/Marking_Prescriptions.



Sometimes all that is necessary is a mark that can be seen or felt. For example, maybe it's difficult to know where the medium heat setting is on a blow-dryer. Suggest putting a heavy dab of glue or nail polish on that setting. The person can then just push the rocker switch to the position that has the mark.

Using Labeling

- If a tube is too small for a label, put it in a resealable sandwich bag and put the label on or in the bag itself.
- Something as simple as a rubber band wrapped around a tube, bottle, or other container may be enough to identify it.
- Personal care supplies used in the shower or tub need waterproof labels or markings. It can be difficult to tell the shampoo from the conditioner because they are the same



Labeling Products

Wrapping a rubber band around similar bottles helps with easy identification.

shape. Use a permanent marker to put a large letter **S** on the shampoo bottle and a large letter **C** on the conditioner bottle. If the marker doesn't show up well, put a piece of water-resistant white tape on the bottle and put a mark on that. Water-resistant tape is available at home improvement, hardware and office supply stores.

- Consider a simple tactile technique to tell the shampoo from the conditioner. Wrap a

rubber band around the middle of the shampoo bottle. To mark the conditioner bottle also, put two rubber bands on it about 1 inch (2.5 cm) apart.

Identifying Medication

Identifying medication may be challenging after losing vision. But helpful strategies exist. Suggest these methods:

- Some medications, like pills and capsules, may be identifiable by touch because of their shape or size, by smell, or by their color. When picking up or receiving a refilled prescription, check if it has the same physical characteristics as the previous prescription.
- If the medication is a pill, does it have the same color, size, texture, and shape of the previous prescription?
- If the medication is a liquid, does it have the same general appearance, color, and viscosity of the medication previously used?
- Is the container the same?

- Ask for sighted assistance to recheck a medication, either at the pharmacy or at home.
- Different brands of the same medication may look different from each other. Ask the pharmacist about any differences in appearance.
- Know both the brand names and the generic names for all medications you take. If a generic form has been substituted, the medication name on the label may be different from the one on the prescription. If you have any questions, ask the pharmacist.
- Some pharmacies now provide accessible prescription information to people with visual impairments. Ask the pharmacist or mail-order supplier about large print and audio labeling options.
- In some cases, prescription information is available in an audio format accessed using specialized equipment. This option is free; ask the pharmacist for the device.
- If you take several medications, mark or label each prescription when you pick it up at the pharmacy.
- If you use large print, take 3-by-5-inch (7.5 by 12.5 cm) cards, a felt-tip marker and rubber bands to the pharmacy. For each medication, make a large print label, wrap it around the bottle, and fasten it with a rubber band.
- If you know the names of the medications you will be getting, make large print labels ahead of time and bring them with you.



Labeling Prescriptions
Large print and tactile marking create safer and easier identification.

- Be sure to bring a marker and index cards with you, too, just in case you need to make additional labels.
- Bring a small handheld audio digital recorder to the pharmacy. Ask the pharmacist to read or record information about each medicine:
 - name of medication
 - dosage
 - reasons the drug was prescribed
 - times of day the medication is to be taken
 - possible side effects
 - special instructions for the medication
 - number of refills
 - prescription number, to assist with ordering refills
 - phone number of the pharmacy
- Ask the pharmacist to put each medication in a separate paper bag and label the bag with large print.
- If you need a tactile method, ask the pharmacist to put each medication in its own paper bag and fold the top of the bag differently. For example, one fold for heart medication, two folds for blood pressure, and three folds for pain medication.
- Use rubber bands to tell medicines apart. For example, put a rubber band around the blood pressure medicine bottle to tell it apart from the pain reliever medication, or use one rubber band for vitamins and two rubber bands for allergy medication.



Join the Conversation!

Our monthly *Resource Roundtable* discussion group is a great way to learn low vision tips and tricks. Learn more at hadley.edu/ResourceChat.

Dental Care

A common challenge for persons with low vision is figuring out how to put toothpaste on a toothbrush. Fortunately, simple solutions exist:

- Using your own personal tube of toothpaste, squeeze some directly in your mouth.
- Alternately, toothpaste may be squeezed onto a finger and then applied to the brush.

While either method may seem a little unusual, it is hygienic if using a personal tube of toothpaste. It is also quick and mess free.

Experiment and Be Creative!

People want to take care of personal needs independently, and vision loss can make this more challenging. But many have walked this path of vision loss before and have discovered ways to overcome these difficulties. Many tips and techniques exist to enable anyone to do a myriad of personal care activities. Adopting personal care strategies enables people with low vision to live more independently.

Staying in Touch



Maintaining relationships with friends, family and community members is important to everyone. Many tools exist for people with low vision to record and retrieve information and to stay in touch with others. With adaptations and new skills, people with low vision can communicate with others independently and sustain meaningful connections.

Recording and Retrieving Information

If you read standard-sized print, you probably take for granted the multiple methods at your disposal for recording information and accessing the world. It's easy to write down shopping lists and telephone numbers and to read mail, newspapers and magazines.

But strategies exist for people with low vision to record and read information, too, so that important details do not need to be entrusted to memory. Suggest the following techniques:

- Consider bold-line paper and black markers. These are helpful tools for taking notes, making lists and writing letters.
- When using bold-line paper, try block print. Make letters larger so they fit the larger line space. This may take practice but will help make the writing more legible.

- Large print address books allow for easy reading. Why not ask a friend or family member to copy old addresses into an easy-to-read version?
- Enter address lists on a computer, print them out in a large font, and organize them into a loose-leaf binder.
- A jumbo print calendar makes it easier to keep track of dates and appointments.
- Enlarge single calendar pages on a copier and put them in a binder.



Bold Lines and Marker
Writing in large print with a black marker increases the legibility of notes and lists.

People who dine communally in residences often say that it is difficult to read meal schedules. It can be frustrating to decipher a menu if the print is too small or not in a contrasting color to the paper. Consider using a copier to enlarge meal schedules and menus. Bold black print on white paper is best.

Remind other community entities such as social clubs, places of worship, or civic organizations that large print communications are preferable. They will be happy to accommodate.

Residents of apartment buildings or assistive living facilities often learn about events and changes from printed announcements on bulletin boards. Have these



Digital Recorder
Digital recorders provide a quick and easy way to keep track of reminders.

announcements available in large print (typically Arial 18 or 20 font), and deliver them to individual apartments.

Many types of digital recorders are available that easily store information in audio format. Suggest the following strategies:

- Use a recorder to store grocery lists, prescription information, phone numbers, and to-do lists.
- Choose a digital recorder with as few features as possible and one that does not rely on a screen for operation.

Apps for the iPhone can help with identifying mail or reading labels. Many options exist, but familiarity with the iPhone's accessibility features is necessary. So certain skills are a prerequisite. Fortunately, these skills are easy to learn. The Resource List contains information on free iPhone training.

Some organizations serving senior citizens or people with visual impairments provide volunteers to read mail or help with correspondence. But this option is usually one of last resort, as most people prefer to conduct their affairs with as much privacy as possible.

Reaching Out

Just as important as recording and retrieving information is the ability to independently communicate with others. Writing letters and using the telephone and technology are all ways to stay in contact with friends, family, and the community.

Writing Guides

A number of writing guides, or templates, exist that enable writers with low vision to keep on a straight line, track line spacing, and stay within paper borders. Templates are available for greeting cards as well. Suggest the following strategies:

- Experiment with short communications first.
- Put a finger of your nondominant hand on the line you are writing, and don't move it until you've finished writing that line. This helps you locate the correct line and ensures that you don't write over any lines.
- Some templates are rigid, making it difficult to form certain letters that go beneath the line, like **j**. If you have that kind of template, maybe eliminate the "tails" of such letters altogether. In other words, when using a rigid template, don't write the "tail" of letters like **j** or **p**. Alternately, write the letters higher in the writing space to include the whole letter.
- Don't dot your **i**'s or cross your **t**'s. Lifting the pen from the paper to do so may cause you to lose your place on the paper.

Telephone Options

Using the telephone is a priority. Charging the unit, accurate dialing, hearing communications, and even locating the device may be barriers, however. Suggest the following strategies:

- If you use a mobile telephone, it may be difficult to locate the charging port because it is small. So, outline the charging port with a tactile mark.
- Purchase a mobile telephone that is especially designed for older adults. These phones have big, bright displays and large, lighted buttons. They have few additional functions other than making and receiving calls.
- Choose a tabletop telephone that has an enlarged keypad in bold contrasting colors.



Accessible Phones
Phones designed for older adults have big displays and large, lighted buttons.

- Select a tabletop telephone that has a talking keypad to ensure accurate dialing and talking caller ID.
- If you have a hearing loss, consider a tabletop telephone with volume controls.
- Most telephone companies offer free directory assistance to customers with vision impairments. Users dial “0” to obtain dialing help without cost. Contact your telephone company for information.
- It’s easy to misplace mobile and portable telephones. Keep the unit in a caddy that conveniently slips over the arm of a chair.
- Have a separate telephone in the bedroom to make it easier to answer nighttime calls.

Using the Computer

Communicating via a home computer is a popular option:

- On most keyboards, the letters **f** and **j** are already marked as reference points. Raised markers can help identify other common keys. In addition, large print overlays, or self-stick labels that display the keys’ letters and symbols in large print, are available.
- Most operating systems have built-in accessibility features that let users change font size, cursor size, background colors, and contrast.
- Large flat-screen monitors are sometimes a helpful and fairly inexpensive option.



Join the Conversation!

Our monthly *Tech It Out* discussion group is a great way to learn tips about everyday technology. Learn more at hadley.edu/TechItOut.

Many adaptive technology solutions are available to promote computer accessibility. These require a certain degree of computer proficiency, so training from an expert such as a vision rehabilitation therapist (VRT) or other rehabilitation professional may be necessary.

Financial Matters

Conducting financial affairs is a central part of adult life. Low vision need not interfere with paying bills, handling cash or signing credit card receipts. Simple solutions enable people with low vision to conduct their money matters independently and in private.

Suggest these strategies for identifying coins:

- Pennies and dimes are roughly the same size, but a dime has a rough, serrated edge. To feel this, rub a fingernail around the edge of the coin.
- Quarters and nickels are also approximately the same size, but a quarter also has a rough serrated edge.

Suggest these ways to organize and identify bills:

- Use a wallet with four separate compartments for ones, fives, tens, and twenties.
- Consider a simple system of folding bills (fold fives in half by width, tens in half by length, twenties folded twice, etc.).
- When paying cash for small transactions, pay with a combination of bills that ensures you will only receive only one-dollar bills as change. This way, you won't need any assistance to determine if you have received the correct change.
- The U.S. Bureau of Engraving and Printing provides a free talking digital bill identifier to citizens with vision impairments.

Recommend these strategies for checks and credit cards:

- Many banks provide large print check registers and large print checks.

- Talking or large display calculators are available for accurate financial record keeping.
- Use a signature guide (a special template for aligning a signature) when signing credit card receipts or other documents.

Reading

For many people, reading is a lifelong pursuit. When standard print becomes illegible because of low vision, many alternatives exist for those who enjoy books, newspapers and magazines.

Suggest these tips:

- Incorrect or poor lighting often results in reading difficulties. Use soft-white bulbs, and position lampshades below your eye level. This will fully illuminate the page while reducing glare.
- Avoid bright overhead lighting, as this may cause glare.
- The National Library Service offers free audiobooks and periodicals delivered directly to the reader. Or you can download books from the National Library Service to your computer or mobile device.
- Local libraries are a good source of large print books as well as audiobooks, which are usually available on CDs.
- Some electronic tablets and e-readers allow you to enlarge print or change the contrast to improve the accessibility of digital books. These devices may also have a speech component that provides audio output.
- Desktop video magnifiers are often used to read printed



Accessible Phones
When reading, keep lamp shades below eye level to reduce glare.

material as well as manage finances and enjoy crafts. Training from a rehabilitation professional is usually necessary to operate these devices successfully.

- The National Federation of the Blind sponsors a free service called “Newsline.” This service provides audio versions of many national and local newspapers, accessible by telephone.



Join the Conversation!

Monthly *Crafting Circle* and *Hadley Growers* discussion groups are a great way to learn low vision tips and connect with others. Learn more at hadley.edu/Crafting and hadley.edu/Gardening.

Tips for People with Hearing Losses

Consider these tips when communicating with someone who has low vision and a hearing loss:

- Always face the person directly and keep your face visible.
- Make sure you have the person’s attention before trying to communicate. Gently touch the top of the person’s arm, or lightly tap on his or her shoulder.
- Identify yourself clearly.
- Ask the person where you should sit or stand so that he or she can see or hear you more easily.
- Don’t speak from another room.
- Ask the person what type of lighting he or she would prefer.
- Make sure there is no glare behind the person.
- Speak clearly and a little slower, but don’t shout.

- Make your lip patterns clear without over-enunciating or exaggerating.
- Allow plenty of time for the person to understand you and respond.
- Listen as well as talk.
- Use body language (facial expressions and gestures) to help get your points across.
- Move away from or reduce background noise as much as possible.
- Rephrase what you have said when you think the person has misunderstood you.
- Include the person in the conversation and tell him or her the topic of conversation.
- Never say, “Never mind, it’s not important,” when the person asks you to repeat something you’ve said. Instead, try to give the information in different words.

Staying in Touch Independently

In any area of communication, accessible alternatives ensure that people with low vision can remain independent and maintain a good quality of life. Some techniques may require training, changing practices or new perspectives. But the end result is self-sufficiency and the freedom to engage with family, friends and community. Enjoy the conversation!

Staying Active



Low vision has an obvious impact on the necessary activities of daily living. It can also affect leisure pursuits. Adjusting to vision loss includes being able to participate in recreational activities again. Indeed, such activities have more of an impact on self-esteem and well-being than more practical tasks. Leisure pastimes link people to others and give meaning to relationships. So enjoying hobbies, crafts, games, and other pastimes is a vital part of rehabilitation.

Sometimes simple modifications are all that are needed to make leisure activities accessible. Discovering new ways to participate in favorite activities enables the person with low vision to maintain his or her quality of life.

Television, Movies, Sports, and More

Enjoying television and movies may become difficult with low vision. Details may be blurry, and it may be hard to discern visual information. It may also be tricky, when watching television, to choose menu items. But adaptations exist:

- If it helps, encourage the person with low vision to sit closer to the screen. People are sometimes reluctant to try this simple adaptation because they mistakenly believe this will hurt their vision or they are hesitant about rearranging their furniture.
- With described video, narrations of the visual elements of a show or movie play during the normal pauses in dialogue. This allows the person who is visually impaired to follow the story or action. Many public television stations provide described video for their programming. Netflix, a movie-streaming service, also provides described video, as do television networks for select shows. Some movie theaters now offer described video movies at some showtimes.
- New technologies are widely available that allow people to easily navigate television menus and controls using voice commands. This capacity will continue to expand.

Following favorite sports on television can remain a fun activity. Suggest turning down the television's volume and putting on the team's designated radio station. Radio sportscasters provide audio narration and a level of description not available on television.

Audio description is available for many other educational and recreational opportunities. For example, museums and tourist attractions commonly provide digital audio tours at nominal or no cost. Some live theatrical venues now provide audio description.

Games and Puzzles

Many games and puzzles are available in large print and other adapted formats:

- playing cards
- bingo cards
- Scrabble

- Monopoly
- cribbage
- checkers
- crossword puzzles
- seek and find
- sudoku

Also, you can use a copier to enlarge standard print puzzles. And magnification devices may make puzzles more accessible to people with low vision.



Large Print Playing Cards

Large print playing cards make it easy to identify your hand at a glance.

When participating in a group game, persons with low vision may need assistance finding a place to sit, encouragement to ask who else is sitting at the table, and reminders to other players to verbally announce their gaming activity (such as which card is being played).

Crafts and Hobbies

Suggest the following crafts and hobbies:

- Creating beadwork is a popular craft. It is for the most part a tactile activity. Good lighting or magnification devices can make visual elements easier.
- Many people with low vision enjoy sewing and knitting. Using adaptive devices and techniques helps with threading needles. Using adaptive techniques also helps with following patterns.
- Many people enjoy gardening. This is primarily a tactile activity: digging, planting, weeding, and picking are best done by touch. With a few modifications, anyone can grow their own flowers, fruits, and vegetables.
- For woodworkers with vision impairments, most tools,

including power tools, can be adapted and used safely. Many online resources give tips and techniques.

- Many people, with and without visual impairments, enjoy singing. Magnifiers may be helpful when reading music and lyrics. Check for local groups and choirs.
- Pottery is an enjoyable tactile artistic activity, and local park districts and community organizations may offer classes.
- Painting is possible after vision loss. Many famous painters, including Monet, painted with significant low vision. Changes in brush technique, use of color, and accessing magnification devices allow painters to continue to be creative.

Sports

Many sports activities require little adaptation for low vision:

- Examples include swimming, canoeing, sailing, dancing, hiking, cross-country and downhill skiing, golfing, tandem biking, and jogging.
- Special equipment, training, or support of a friend or a group may be all that is necessary.
- Talking dart boards exist, as well as an adapted tennis game and a talking jump rope.
- Riding an exercise bicycle or tandem biking with a sighted friend may be enjoyable.
- Dancing with a partner can be fun for social opportunities as well as the exercise.



Staying Active

Many outdoor activities, like boating, are enjoyed with a partner.

The next sections discuss swimming, bowling, golfing, sailing, and skiing. Check the Resource List for more information on related organizations.

Before choosing sports activities, advise scheduling a complete physical exam from the primary care provider and a complete eye exam. Although many activities are beneficial and healthy, others may cause serious injury if the person has health concerns.

SWIMMING

Other than getting oriented to the locker room and swimming areas, swimming in a pool with lanes requires little to make it accessible. Suggest asking an orientation and mobility (O&M) specialist for tips to the pool area. If the pool has lane markers or ropes, these will help with orientation. By counting the number of strokes it takes to do a lap, the person can know when he or she is approaching the end of a lane to slow down. Using a kickboard held in front allows for faster swimming, as it acts as a bumper.

BOWLING

The only physical modification necessary is a portable guide rail for the lanes. Rails are made of wood or a tubular lightweight metal, and they can be assembled, disassembled, and stored easily. These rails can help guide the person directly to the pins. Some bowlers who are visually impaired hold on to the rail the entire time, and others just use the rail to line up with the ball. A sighted friend or assistant can let the person know which pins have been knocked down. Also, using a brightly colored ball may help.



Contrasting Bowling Balls

Bright colors help with identification and may be easier to see on the lanes.

Some bowling alleys have these rails, so suggest calling ahead and asking. Or why not request that the bowling alley purchase these rails to encourage more business? Also, some organizations of blind bowlers own and bring their own rails to bowling alleys. One might also use a sighted guide instead of a rail, helping to align the ball exactly as the bowler wants it delivered.

GOLFING

Only a few minor modifications to standard rules are necessary. A sighted coach describes distance, direction, and characteristics of the hole. The coach also assists in aligning the club head behind the ball prior to the golfer's stroke. The golfer's skill determines the resulting stroke.

EXERCISE CLASSES

Group exercise is accessible when instructors provide clear and consistent verbal descriptions of exercises, move closer to visually model the movements to persons with low vision, or ask for permission to physically demonstrate techniques by touch.

Encourage Recreation!

The variety of ways to modify recreational activities for people with low vision is endless. To start, don't ask what specific activities people with low vision can do. Instead, ask what the person enjoys doing in the first place. Then modify this activity for low vision. People with low vision can pursue the same activities they enjoyed before losing vision. They just might need to do the activities a bit differently.



Join the Conversation!

No matter your level of vision or fitness, join us in our monthly *Get Up and Go!* discussion group for a variety of recreation topics at hadley.edu/GetUp.

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General Organizations

AMERICAN COUNCIL OF THE BLIND (ACB)

1703 N. Beauregard St., Suite 420, Alexandria, VA 22311

800.424.8666 | 202.467.5081 | acb.org

This membership organization advocates independence, security, equality of opportunity, and improved quality of life for all people with visual impairments. ACB conducts public education and is a source of information on programs, services, and legislation. ACB publishes the [Braille Forum](#), a free monthly magazine available in various formats. This organization has information of interest to the general public as well as to ACB members.

AMERICAN FOUNDATION FOR THE BLIND (AFB)

1401 S. Clark St., Suite 730, Arlington, VA 22202

800.232.5463 | 212.502.7600 | TTY: 212.502.7662 | afb.org

This organization promotes employment, independent living, literacy, and technology for people with visual impairments. It provides information and referral to people who are visually impaired, professionals, and the general public.

COUNCIL OF CITIZENS WITH LOW VISION INTERNATIONAL (CCLVI)

Affiliate of the American Council of the Blind (ACB)

6010 Lilywood Lane, Knoxville, TN 37921

844.460.0625 | cclvi.org

An affiliate of the American Council of the Blind, CCLVI provides support and advocacy for people who are visually impaired, focusing on rights, education, outreach, research, and services.

FOUNDATION FIGHTING BLINDNESS

7168 Columbia Gateway Dr., Suite 100, Columbia, MD 21046

800.683.5555 | 410.423.0600 | TDD: 800.683.5551 | blindness.org

This organization promotes research that will provide preventions, treatments, and cures for people affected by retinitis pigmentosa, macular degeneration, Usher syndrome, or any retinal degenerative diseases.

JB I INTERNATIONAL

110 E. 30th St., New York, NY 10016

800.433.1531 | 212.889.2525 | jbilibrary.org

The JBI library provides books, magazines, and publications in audio, large print, and braille formats free of charge to people worldwide who are visually impaired, physically disabled, or reading disabled.

LIGHTHOUSE GUILD

250 West 64th Street, New York, NY 10023

800.284.4422 | lighthouseguild.org

Lighthouse Guild International is a worldwide resource on vision impairment and vision rehabilitation. Its work includes vision rehabilitation services, public education, professional development, research, prevention, and advocacy. It can refer individuals to service providers in their area.

LIONS CLUBS INTERNATIONAL

300 W. 22nd St., Oak Brook, IL 60523.8842

630.571.5466 | lionsclubs.org

Members of Lions Clubs International serve people who are visually impaired and participate in local efforts committed to preserving sight. They collect and recycle eyeglasses for distribution in developing countries and treat millions to prevent river blindness.

MACULAR DEGENERATION FOUNDATION

P.O. Box 531313, Henderson, NV 89053

888.633.3937 | 702.450.2908 (international) | eyesight.org

This foundation provides funding for scientific research aimed at ending and curing macular degeneration. In addition, it offers current information and support to people with macular degeneration. Its website includes links to local low vision centers, therapists, doctors, and support groups. It also offers a free email newsletter with information, news, and resources.

MACULAR DEGENERATION SUPPORT (MD SUPPORT)

3600 Blue Ridge Blvd., Grandview, MO 64030

888.866.6148 | 816.761.7080 | mdsupport.org

This organization offers information and support to people with macular degeneration and related retinal conditions. The founder and most MD Support volunteers have visual impairments. Its website includes links to resources and organizations, a low vision bookstore, a library of articles written for laypeople, and a glossary. MD Support also provides a public awareness program for people who do not have access to the Internet. It also maintains the International Low Vision Support Group.

THE NATIONAL COUNCIL ON INDEPENDENT LIVING (NCIL)

2013 H Street NW, 6th Floor, Washington, DC 20006

844.778.7961 | 202.207.0334 | TTY: 202.207.0340 | ncil.org

NCIL, which is governed by people with disabilities, advocates the development and expansion of a nationwide network of centers for independent living. It helps the centers build their organizational capacity to promote social change, eliminate discrimination, and create opportunities for people to participate in their communities. It provides materials related to disability policies and laws to its membership, Congress, federal agencies, and the general public.

NATIONAL EYE INSTITUTE/ U.S. NATIONAL INSTITUTES OF HEALTH (NEI/NIH)

31 Center Dr. MSC 2510, Bethesda, MD 20892-2510

301.496.5248 | nei.nih.gov

This U.S. government agency is dedicated to preserving vision. It supports and conducts research on the prevention and treatment of eye conditions and diseases. It provides free information about eye conditions and treatments.

NATIONAL FEDERATION OF THE BLIND (NFB)

200 East Wells St. at Jernigan Place, Baltimore, MD 21230

410.659.9314 | nfb.org

NFB is a membership organization of persons who are blind, offering support to individuals and their families. It provides services, public education, information and referral, publications, adaptive equipment, and advocacy. NFB has divisions that deal with issues such as deafblindness, braille and technology, diabetes and parenting.

General Websites

AMERICAN OPTOMETRIC ASSOCIATION

aoa.org

This website contains information about common eye problems and suggests ways to care for the eyes. Its “Find a Doctor” directory helps users locate local optometrists.

LARGEPRINTBOOKS.COM

largeprintbooks.com

This site offers books in large print on a wide range of topics.

LOW VISION CHEF

lowvisionchef.com

This website offers products and tips for cooks who are visually impaired.

VISIONAWARE

visionaware.org

Visionaware.org is a free and practical website developed by experienced vision rehabilitation personnel. It aims to help adults losing vision to continue to live full and independent lives. It offers information, techniques, a directory of services, and an online community. Its Senior Section offers resources and solutions for seniors with vision loss as well as family members and caregivers. VisionAware also features an Information Hub for veterans with vision loss.

Organizations for Veterans

BLINDED VETERANS ASSOCIATION (BVA)

125 N. West St., 3rd Floor, Alexandria, VA 22314

800.669.7079 | bva.org

The BVA, an organization of blinded veterans, helps blinded veterans and their families meet the challenges of visual impairment. It offers counseling as well as advocacy and referral to services, rehabilitation training, and job search assistance. Services are free, regardless of whether the veteran is a member and regardless of whether the veteran became blind during or after military service. BVA is the only veteran's service organization focusing solely on serving veterans who are visually impaired.

THE NATIONAL ASSOCIATION OF BLIND VETERANS

P.O. Box 784957, Winter Garden, FL 34778

321.948.1466 | nabv.org

NABV is an organization of blind veterans, both service-connected and non-connected, who are concerned about the well-being of blind veterans. It is a division of the National Federation of the Blind (NFB) and tries to ensure blind veterans benefit from NFB resources.

Specialized Vendors

ABLEZONE, INC.

3456 Rochester Rd., Troy, MI 48083

866.663.2253 | ablezone.com

This company provides straightforward, economic, and quality solutions, as well as hobby and technical optics, to people with disabilities. Products include low vision and blindness aids such as magnifiers, reading machines, screen readers, and notetakers.

AMBUTECH

34 DeBaets St., Winnipeg, MB, R2J 3S9, Canada
800.561.3340 | ambutech.com

This company manufactures and sells mobility canes and mobility aids for people who are blind or visually impaired. Its factory produces items on a made to order basis, allowing it to meet the customer's unique specifications.

HORIZONS FOR THE BLIND

125 Erick St., A103, Crystal Lake, IL 60014
800.318.2000 | 815.444.8800
horizons-blind.org | directionsforme.org

Horizons for the Blind is dedicated to improving the quality of life for people who are blind or visually impaired through our consumer products and services, the cultural arts, education and recreation. Their companion site, directionsforme.com offers accessible packaging information for hundreds of groceries, health and beauty items.

INDEPENDENT LIVING AIDS, LLC

137 Rano St., Buffalo, NY 14207
800.537.2118 | independentliving.com

A wide variety of adaptive products for daily living activities, computer-related products, and games for children and adults.

LS&S, LLC

145 River Rock Dr., Buffalo, NY 14207
800.468.4789 | TTY: 866.317.8533 | lssproducts.com

This vendor, whose motto is "Learning, sight and sound made easier," offers assistive products for people with visual impairments or other disabilities. Its catalog lists products in technology, daily living activities, lighting and recreation.

MAXI-AIDS, INC.

42 Executive Blvd., Farmingdale, NY 11735
631.752.0521 (information) | 800.522.6294 (sales)
TTY: 800.281.3555 (sales) | maxiaids.com

This vendor offers products for independent living for people who have visual impairments or other disabilities. The catalog includes braille, large print and talking items.

NATIONAL BRAILLE PRESS (NBP)

88 Saint Stephen St., Boston, MA 02115.4312
888.965.8965 | 617.266.6160 | nbp.org

This organization provides a wide variety of books in accessible formats, including braille, audio, and computer files.

NATIONAL LIBRARY SERVICE FOR THE BLIND AND PHYSICALLY HANDICAPPED (NLS)

The Library of Congress, Washington, DC 20542
800.424.8567 | 202.707.5100 | TDD: 202.707.0744 | loc.gov/nls

This U.S. government agency works with local libraries to lend materials in braille and in audio (talking books), including books, magazines, and music. It provides a catalog of available items. NLS has books on diabetes and other health issues.

TALKINGTHERMOSTATS.COM

P.O. Box 27145, Golden Valley, MN 55427-0145
800.838.8860 | 763.591.9557 | talkingthermostats.com

This vendor offers a line of talking thermostats.

TIFLOLIBROS

Adolfo Alsina 2604, Ciudad de Buenos Aires 1228, Argentina
54.11.4951.1039 | tiflolibros.com.ar

This nonprofit organization offers a digital library to people in America, Europe and Asia who are visually impaired and who speak Spanish. Tiflolibros has an online catalog of over 30,000 books in Spanish that registered members can download with personal password. Registration is free, but a donation is requested to support the library.

Leisure-Time Activities

Education, Arts and Entertainment

DIALOGUE MAGAZINE

Blindskills, Inc., P.O. Box 5181, Salem, OR 97304-0181
800.860.4224 | 503.581.4224 | blindskills.com

This quarterly publication has articles by and for people who are visually impaired. It covers a wide range of topics, such as assistive techniques, technology reviews, sports, poetry, and fiction. **Dialogue** is published in braille, large print, digital cartridge, digital download and email formats.

NEW YORK TIMES LARGE TYPE WEEKLY

800.631.2580

This 16-point font edition provides articles from the past week's **Times**. It includes world and national news, business, science and health, the arts, sports, editorials, and the crossword puzzle.

READER'S DIGEST LARGE-PRINT EDITION

877.732.4438 | rd.com

This edition contains the same articles and features on nonglare paper in an extra-large font.

Sports

AMERICAN BLIND BOWLING ASSOCIATION (ABBA)

216.561.6864 | abba1951.org

North American sanctioning organization for ten-pin bowlers who are visually impaired. Individuals can get information about participation in a league in their area.

AMERICAN BLIND GOLF (AMG)

americanblindgolf.com

AMG is a national nonprofit golfing organization that promotes golf for people who are visually impaired. It is a leader in golf tournaments for people who are visually impaired, and players also compete in international events.

AMERICAN BLIND SKIING FOUNDATION

c/o Michelle Hulscher, President

609 Crandell Lane, Schaumburg, IL 60193

312.409.1605 | absf.org

Lessons in alpine or downhill skiing are open to all levels and ages of children and adults with visual impairment. An instructor works one-to-one with the person, introducing equipment by touch and working in a safe environment until the skier is ready for a bigger hill. This activity builds independence, confidence, knowledge, fun, and social interactions.

BLIND SAILING INTERNATIONAL

blindsailinginternational.com

This organization unites sailors from around the world who are visually impaired. It holds competitive races and promotes sailing for people with visual impairments.

SKI FOR LIGHT, INC.

1455 W. Lake St., Minneapolis, MN 55408

612.827.3232 | sfl.org

This organization for people who are disabled sponsors cross-country skiing events throughout the United States, including instruction, workshops, cultural activities, and races.

Travel

WILDERNESS INQUIRY

808 14th Ave. SE, Minneapolis, MN 55414-1516

800.728.0719 | 612.676.9400 | wildernessinquiry.org

Wilderness Inquiry provides outdoor adventure opportunities for people of all abilities. Its goal is to encourage and inspire personal growth and demonstrate the possibilities of achievement to all participants.

Suggested Reading

Unless otherwise indicated, these books may be obtained from traditional and online bookstores. Items in accessible formats are noted, where available.

COPING WITH VISION LOSS: MAXIMIZING WHAT YOU CAN SEE AND DO.

Chapman, Bill

The author, who has 20/240 visual acuity, explains basic facts about eyes, vision, and rehabilitation, and he describes valuable low vision aids and necessary skills for a person with low vision.

MAKING LIFE MORE LIVABLE: SIMPLE ADAPTATIONS LIVING AT HOME AFTER VISION LOSS

Duffy, M. A.

This guide gives practical tips and shows how people who are visually impaired can live independent and productive lives. It provides general guidelines and room-by-room specifics for making the home accessible.

AGING AND VISION LOSS: A HANDBOOK FOR FAMILIES

Orr, Alberta L., M.S.W., and Priscilla A. Rogers, Ph.D.

This book explores how to meet the needs of the older person with vision loss as well as the needs of caregivers. It includes information on vision loss, adaptive methods for doing everyday and recreational activities, and ways to adapt the living environment.

O&M FOR INDEPENDENT LIVING: STRATEGIES FOR TEACHING ORIENTATION AND MOBILITY TO OLDER ADULTS

Griffin-Shirtley, Nora and Laura Bozeman

This guide explores how to help older adults with vision loss continue having independent lifestyles. It includes guidelines for instruction and describes indoor and outdoor orientation and mobility (O&M) skills. It provides information on aging, assessment, ways to adapt O&M skills, and ways to modify the environment. It suggests helpful equipment and discusses the relationship of exercise to mobility skills. Available formats: paperback, online, ebook (ePUB format), ebook (Kindle format), by online chapter.

THE FIRST YEAR—AGE-RELATED MACULAR DEGENERATION: AN ESSENTIAL GUIDE FOR THE NEWLY DIAGNOSED

Roberts, Daniel L.

This guide, written for people newly diagnosed with macular degeneration, describes strategies for doing everyday activities with visual impairment. It discusses ways to slow the progression of macular degeneration and explains treatment options. It also explores low vision devices, technology, and training. Ways to deal with depression and boredom, tips for exercise, diet, stress management, and other lifestyle topics included.

A SELF-HELP GUIDE TO NON-VISUAL SKILLS

Roberts, Dan

This guide provides self-evaluation in 21 different areas of daily activities with links to brief lessons that introduce devices, technology, software, and adaptive strategies.

Practical Help for Low Vision

From cooking to personal care, laundry to going out for a meal, you can find plenty of helpful hints to share through this series of short audio tips. Free of charge to anyone with a visual impairment, the recordings are available to listen to online, and on CD, USB thumb drive, or Digital Talking Book (DTB) cartridge.



Get Practical Help for Low Vision:
800.323.4238 or visit **hadley.edu/lowvision**

Topics in the Series:

- Simple Home Adjustments
- Marking and Labeling
- Technology
- Cooking and Kitchen
- Getting Around
- Adjusting to Low Vision
- Personal Care
- Health and Wellness
- Recreation

Simple Home Adjustments

ORGANIZATION AND SAFETY IN THE HOME

- Organizing the Bathroom
- Safety in the Bathroom
- Safety in the Kitchen
- Handling Money: Part 1
- Handling Money: Part 2
- Organizing Clothes: Part 1
- Sorting Clothes for Laundry
- Laundry Detergents
- Organizing Clothes: Part 2

ASSISTIVE TECHNOLOGY FOR THE HOME

- Tips on Buying Assistive Technology
- The Basics of Magnifiers
- Types of Magnifiers
- Video Magnifiers
- Large Display and Talking Devices

LIGHTING

- Adjusting Lighting to your Home
- Bathroom Lighting
- Kitchen Lighting
- Lighting Devices

Marking and Labeling

LABELING ITEMS

- Marking Bathroom Items
- Marking Prescriptions
- Marking Clothes
- Marking the Washer and Dryer
- Marking Food Items: Part 1
- Marking Food Items: Part 2
- Marking Food Items: Part 3
- Marking the Microwave
- Marking the Stove
- Marking the Oven

BASIC TACTILE MARKING

- Glue Dots, Bump Dots and Felt Pads
- Velcro and Rubber Bands

Technology

IPHONE AND IPAD

- Beginning VoiceOver Gestures
- Advanced VoiceOver Gestures
- Beginning Zoom Gestures
- Using the Magnifier
- Placing and Receiving Calls
- Sending a Text Message
- Using the Speak Screen Function

DIGITAL TALKING BOOK PLAYER

- NLS Advanced Digital Talking Book Player

Cooking and Kitchen

ORGANIZATION AND SAFETY

- Organizing the Kitchen: Part 1
- Organizing the Kitchen: Part 2
- Everyday Cooking Devices: Part 1
- Everyday Cooking Devices: Part 2
- Safe Stovetop Techniques
- Safe Boiling Techniques
- Safe Baking Techniques
- Safe Frying Techniques
- Knife Safety
- Cutting Salads
- Kitchen Lighting
- Cleaning Up Spills

MARKING AND LABELING

- Marking Food Items: Part 1
- Marking Food Items: Part 2
- Marking Food Items: Part 3
- Marking the Microwave
- Marking the Stove
- Marking the Oven

MEASURING AND POURING

- Measuring Spices
- Pouring Devices
- Pouring Cold Liquids
- Pouring Hot Liquids

Getting Around

ORIENTATION & MOBILITY BASICS

- Safe Mobility at Home: Part 1
- Safe Mobility at Home: Part 2
- Orientation of a Room
- Using a Cane
- Exploring the Table Setting
- Exploring Food on Your Plate
- Overview of Moving Around the House
- Upper Protective Technique
- Lower Protective Technique
- Combining Upper Protective and Sweeping Techniques
- Trailing Technique

USING A HUMAN GUIDE

- Going Down the Stairs
- Using a Public Staircase
- Using Stairs at Home
- Basics of Using a Human Guide
- Navigating Narrow Passageways
- Navigating Through Doorways
- Seating Yourself at a Table

GOING OUT FOR A MEAL

- Attending Events
- Going Out to Eat
- Salt & Pepper Shakers

- Salads, Soups and Bread
- Restaurant Wait Staff
- Navigating Buffets

Adjusting to Low Vision

WHO IS THE VISION REHABILITATION THERAPIST (VRT)?

- Getting the Diagnosis
- Definition of a Vision Rehabilitation Therapist
- Preparing for your First VRT Visit
- What to Expect at Your First VRT Visit

THE BASICS OF AGE-RELATED VISION LOSS

- Low Vision Aids

Personal Care

CLOTHES

- Organizing Clothes: Part 1

MAKEUP AND GROOMING

- Setting Up the Bathroom
- Putting on Makeup

Health and Wellness

MEDICATIONS

- Organizing Prescriptions
- Marking Prescriptions
- Using a Pill Box Organizer
- Keeping Track of Prescriptions
- Using Eye Drops
- Measuring Liquid Medicines

Recreation

GARDENING

- Growing Herbs
- Using Herbs



Get Practical Help for Low Vision:
800.323.4238 or visit **hadley.edu/lowvision**

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