

Cooking and Eating With Low Vision

Lesson Plan

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Target Audience

Adults or people who help those who have low vision

Activity Time

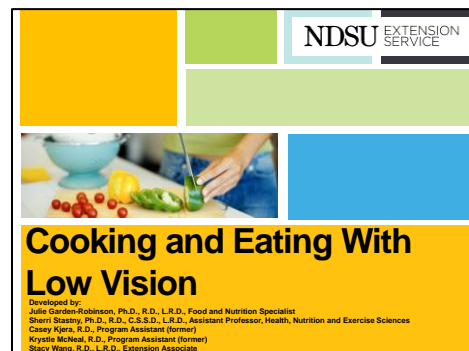
30 to 45 minutes

Objectives

- Participants will be able to describe the effects of low vision on health and nutrition.
- Participants will learn basic low vision food preparation tips.
- Participants will learn strategies to use when eating out.

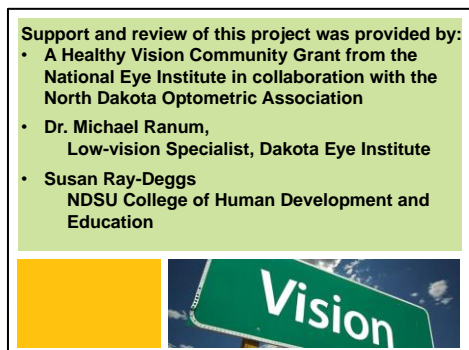
Preparation and Supplies

- Obtain copies of handout for each participant
 - “Cooking and Eating With Low Vision”



Slide 1 – Introduction

Introduce yourself and welcome the participants. Have the participants introduce themselves and name a reason for attending.

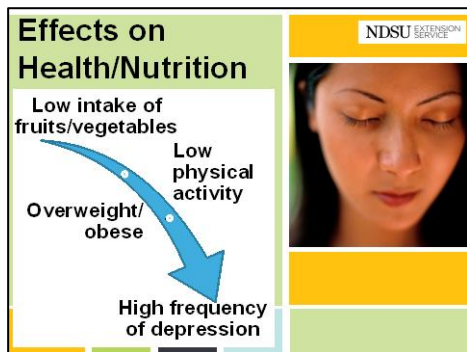


Slide 2 – Support and Review



Slide 3 – Overview

Briefly give overview of presentation.



Slide 4 – Effects on Health/Nutrition

As you can see, cooking and eating is a challenge with low vision. Little research has been done that shows the impact of vision loss on eating habits, but evidence indicates that basic activities of daily living, including cooking and food preparation, often become more difficult with low vision.

Low intake of fruits/vegetables can contribute to obesity, and those with low vision may not attempt fruit and vegetable preparation. These foods often are not consumed due to the difficulty in chopping safely and quickly, and the inability to detect the ripeness of food while shopping.

The risk for overweight and obesity also is increased because of low physical activity and possibly due to a high intake of restaurant foods. According to a Canadian study, people with low vision have trouble finding exercise activities that are safe or they enjoy. In this same study, seven out of nine participants with some degree of vision loss were overweight or obese (five ate more than 50 percent of their meals out of the home).

However, participants attributed weight and physical inactivity to “laziness,” not their low vision.

Educating those with low vision to make healthful food choices when eating out at restaurants and how to shop and prepare healthful, simple meals and snacks in their home is important. An Extension handout, “Cooking and Eating With Low Vision,” is available for distribution.

The American Academy of Ophthalmology reports that vision loss causes more depression than any other physical impairment.



Slide 5 – Barriers to Healthful Eating

Imagine shopping for foods without the ability to compare prices, visually check produce for freshness or even travel to the grocery store safely. For these reasons, many people with low vision eat out frequently. Among a sample of visually impaired people, one study found that about 40 percent of evening meals were purchased outside of the home.


According to the aforementioned Canadian study, eight out of nine participants stated they “disliked or hated cooking” because of the time cooking with low vision takes. For example, chopping vegetables may not be difficult (according to a study participant), but it is very time-consuming. For this reason, people with low vision may choose to eat foods at restaurants because it simply is more time-efficient.

Many adaptive tools are available to help those with low vision utilize their kitchen, but some simply may not want to use such equipment or take the time to learn how to use it.

For all of these reasons, people with low vision have a higher tendency to prepare simple meals with few steps/ingredients. Common foods consumed are prepared/processed foods, such as boxed dinners and canned soups.

Top 10 Cooking Difficulties

- Accessing recipes that can be read
- Organizing and finding items in the kitchen
- Checking food freshness
- Chopping/cutting
- Measuring small amounts of liquid




Slide 6 – Top 10 Cooking Difficulties

This slide lists the top problems for those with low vision when cooking. Those individuals need support, encouragement and resources to help them overcome these obstacles.

Top 10 Cooking Difficulties

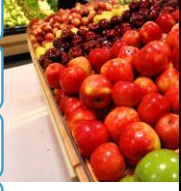
- Setting dials on stovetop or oven
- Handling hot food and hot stove
- Cooking multiple foods at a time
- Determining doneness
- Extra time needed to cook



Slide 7 – Top 10 Cooking Difficulties

Shopping Tips

- Plan ahead; before shopping, making lists and menus
- Ask a butcher to cut meats at the counter
- Use touch and smell when selecting produce
- Purchase precut fresh or frozen fruits and vegetables



Slide 8 – Shopping Tips

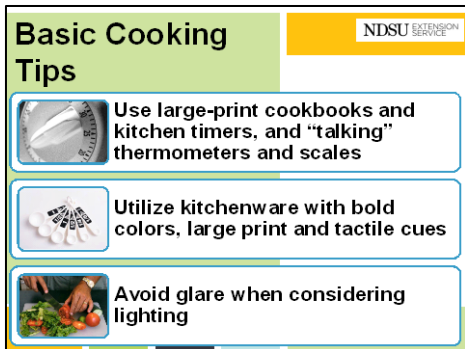
The following tips are from Deborah DeBord, a cook, freelance writer and former college professor. These tips are part of a cookbook she wrote after her vision began to deteriorate and includes recipes as well as tips for shopping/cooking (Web reference follows on separate slide).

- Try planning simple meals for a week or so and then creating shopping lists based on these menus. Prepare meals including foods that may spoil earlier in the week to avoid waste.
- Ask the butcher to cut meats at the counter before purchasing (if making a stew, for example), which will save time at home and eliminate the need to use a knife.
- When selecting produce, try the following: Thump a watermelon to hear a hollow sound, smell the end of cantaloupes for ripeness, feel the skin of oranges for thinness. Recognizing the freshness of fruits and other produce by their smell and feel will come with time and experience.
- In addition to using senses to purchase good produce, some may find that buying precut fresh produce or frozen fruits and vegetables is easier because they require less preparation and are easier to choose than fresh varieties. Use canned fruits/vegetables as a “backup” to more nutritious fresh/frozen options.



Slide 9 – Shopping Tips

- Using the same brands each time helps you know ingredients, instructions and other information without reading.
- Become friends with the grocery store employees, such as the butcher, produce manager and cashier. Ask for help with shopping at the grocery store (call ahead of time).
- Utilize online grocery shopping and delivery services, which several grocery stores offer. Some stores also may give shoppers the option of phoning or faxing orders. Also, you may ask the supermarket if it can provide a professional shopper who will walk with a person with disabilities and help select foods according to the shopper's needs and price preferences.



Slide 10 – Basic Cooking Tips

** Tips from www.lowvisionchef.com

Relearning to cook can help those with low vision maintain independence. Adaptations made in the kitchen should be used in conjunction with low-vision aids (such as high-powered reading glasses or magnifying glasses). The following tips came from a website at www.lowvision.com.

This site was created by the husband of a woman who has been a professional chef for 28 years. Her sight deteriorated due to macular degeneration and she is legally blind. Determined to continue cooking, she and her husband have developed several kitchen tools, gadgets and ideas to help those with low vision continue cooking. This site does not necessarily sell products that the couple has “invented;” rather it features products they view as being helpful to those with low vision or blindness. For example, many products are manufactured by a kitchen gadget company.

This website includes videos that help with basic knife skills and other tips to make a kitchen “low vision friendly.”

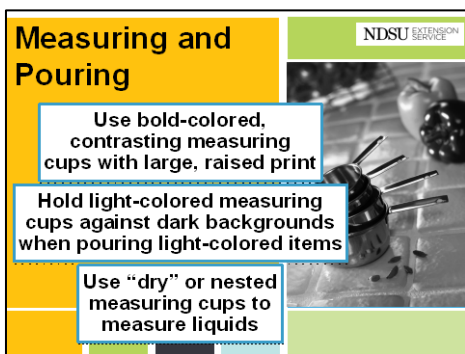
- Remember: Color contrast (different colors) helps those with low vision during teaching (discussed earlier in presentation). This also is true in the kitchen, especially with cutting boards and measuring cups. Try to use dark-colored cutting boards with light-colored foods, for example.
- Lighting and surfaces: The most important thing to remember when addressing lighting in the kitchen is to avoid glare, especially glare off a knife, pot, appliance, shiny pan or countertop. Consider the following when adjusting lighting in food-preparation areas:
 - Install under-the-cabinet lights (or task lighting) over kitchen counter work areas. Battery-operated options may be available for this kind of lighting.
 - Use gooseneck lights placed below eye level when working on a task in the kitchen, such as reading a recipe or chopping food. These lights, when placed below eye level, avoid glare. Other lights that cover large areas tend to create more glare.
 - Choose smooth countertops with a matte finish, such as wood, laminate or a solid surface material. These materials prevent glare.



Slide 11 – In the Kitchen

Now we will discuss some tips to help in specific areas of food prep/cooking.

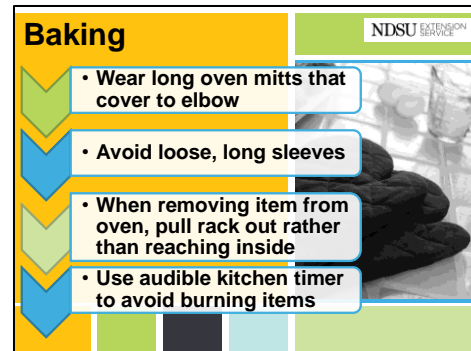
- Maintaining organization in kitchen storage will help make cooking more efficient and safer. Remember: Everything has a place, and everything in its place.
- Label shelves and label food when it comes home from the grocery store for easier organization of the pantry and refrigerator. Foods may be labeled with a label maker using large font, or you may use other household items to label foods, such as colored tape or rubber bands, which also provide a tactile label.
- Consider placing the items you use most frequently at a height that is most accessible.
- First in, first out: Place older items in the front and new items in the back in the refrigerator and pantry.



Slide 12 – Measuring and Pouring

- Using measuring cups that enhance contrast and have large-print markings may be helpful. Measure dark foods in a light-colored cup and vice versa to utilize contrast properly. Some people may find that adding their own markings or signs to measuring cups is helpful.

- Using dry measuring cups to measure liquids might be helpful.
- Also remember that hand-held, stand or mounted magnifiers can be used to enlarge reading materials, measuring cups or any given object.



Slide 13 – Baking

Many with low vision may be afraid to utilize the oven due to a fear of burning themselves or the food.

- To avoid burning yourself, wear long oven mitts that go up to the elbow (most stop in the middle of the forearm) and avoid loose, long sleeves. Also, pull the oven rack out of the oven to remove a hot item rather than reaching your arms inside.
- Adjust oven shelves **before** turning on the oven.
- To avoid burning the food, use an audible kitchen timer with large numbers that can be seen easily when setting.
- You also have a few ways you can mark the temperature settings on an oven so they can be seen more easily. This will be discussed in more detail in a few slides.



Slide 14 – Stovetop

Those with low vision have the same fears about using the stovetop as they do about using the oven. In fact, more kitchen fires occur when using the stovetop than any other piece of kitchen equipment.

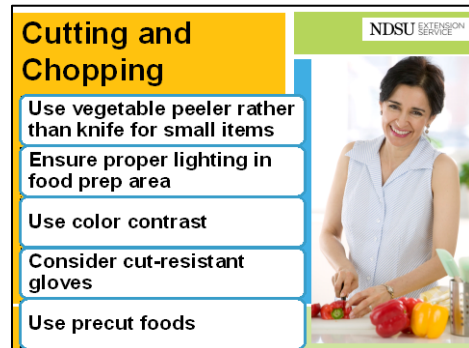
- Make sure lighting limits glare rather than creating more glare at the stove.
- Considering installing color-contrasted or large-print dials on a stovetop. If possible, having dials on the front or side of the burners so people with low vision do not have to reach over hot stovetops to adjust settings also is beneficial.
- Try using brightly colored paint to mark commonly used settings. This can help avoid setting the stove too hot and burning food or setting it too low and not properly cooking the food.
- And remember, don't ever leave hot stovetops and cooking appliances unattended.



Slide 15 –

To mark commonly used stove settings, try using small dots of paint. These can be color-coordinated to each setting, depending on the preference of each individual. For example, blue can be used for “off” and red can be used to mark “high” heat.

- This is a photo from a video on the www.lowvision.com website in which the chef's husband shows how to mark certain pieces of kitchen equipment, including a microwave and oven, in this manner. Also notice in this photo that the controls are on the side of the stove elements to limit the risk of a burn.
- On an oven, try marking the most commonly used temperatures, such as 350, 400 and 450. These marks can help cooks hit the temps in between.



Slide 16 – Cutting and Chopping

One of the reasons those with low vision do not cook at home is the fear of cutting themselves. These tips may help. Fear of cuts also may be a major reason those with low vision tend to eat fewer fruits and vegetables.

- Use the right size tool for the job. If you are trying to peel an apple, use a small vegetable peeler rather than a large knife.
- Again, proper lighting while cutting will reduce the risk of injury (see next slide for photo.) Remember, to reduce glare, place a gooseneck lamp below eye level over the item to be cut.
- Choose a cutting board that has a nonslip or grip feature, as well as a color that contrasts with the color of the countertop and the food to be cut. This may allow the cook to see everything more easily. Choosing countertops with contrasting color to the edge also can be very helpful because those with low vision can more easily see where the counter ends.
- Cut dark/red food on a light-colored cutting board (see an example on the next slide). Special gloves made of a cut-resistant material can be purchased.

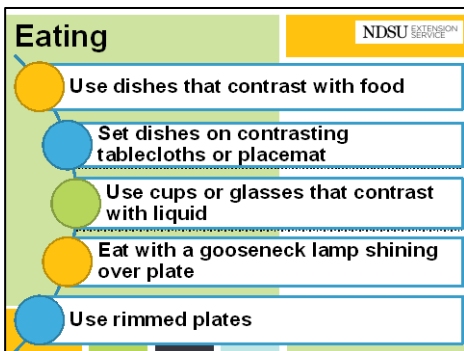
- For dicing vegetables, a food chopper may be easier and safer to use.
- To save the most time and eliminate the risk of cutting themselves, individuals may choose to purchase precut fruits or vegetables. This is a more expensive option, but it will save time and still provide valuable nutrients.



Slide 17 – Use Contrast and Reduce Glare

This photo shows an example of using contrast and reducing glare while cutting an apple. The apple is placed on a light-colored cutting board (contrast), with a gooseneck lamp placed over the apple (to reduce glare while increasing visibility).

This adaptive cutting board includes a “nook” to hold the chef’s knife in place.



Slide 18 – Eating

Again, using color contrast is the key to seeing the food more clearly. Avoid using heavily decorated dishware because this can decrease contrast.

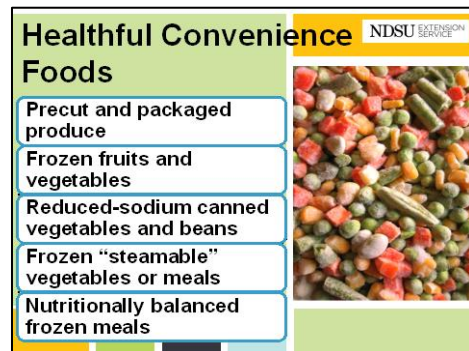
Examples of using contrasting cups/glasses are pouring dark coffee into a white cup placed on a dark placemat or countertop, or pouring milk into a dark-colored cup on a light surface.

Always set the table in an identical manner.

Eating with a lamp shining over the plate is more helpful than increasing overall lighting, which can increase glare and make eating more difficult. Make sure the lamp is shining **below** eye level.

An occupational therapist also may be able to help those who need adaptive equipment, such as:

- Lip plate
- Scoop dish or high-rimmed bowl
- Adaptive utensils such as a fork with built-up nonslip handle
- Long straw
- Rocker knife
- Drink holders; places to nestle drinks throughout the day



Slide 19 – Healthy Convenience Foods






As previously discussed, eating out and eating processed foods such as boxed dinners and canned soups often are common for those living with low vision. Both of these behaviors may contribute to obesity. While we hope many people will try to cook for themselves in their homes after learning some strategies, some people likely will continue to eat most of their meals at restaurants and prefer the convenience of processed foods. Therefore, offering tips to make healthy choices when eating out at restaurants, and how to shop and prepare healthy, simple meals and snacks in their home, is important.

Processed foods often contain high amounts of calories, fat and sodium, which can increase the risk for disease when consumed in large quantities.

However, some convenience products in grocery stores offer convenience without the added fat and calories.

Examples include:

- Precut fruits and vegetables, which are available in the produce section of grocery stores (usually on shelves along the wall). Foods often offered: bagged salads, cauliflower, broccoli, carrots, pineapple or strawberries. Remember, some fruits and vegetables, such as melons, pineapple, oranges and onions, require more effort and vision to prepare (require peeling or slicing) and eat. However, some varieties, such as grapes, strawberries, blueberries and bananas, can be consumed with very little to no prep other than washing.
- Frozen fruits/vegetables are convenient because the guesswork is skipped, compared with choosing and preparing fresh produce. Diced, frozen vegetables may be available at many grocery stores. Frozen fruits/vegetables provide similar nutrient benefits as fresh.
- Canned vegetables and/or beans also are more convenient than buying fresh and provide many of the same health benefits. **However, canned veggies do contain a high amount of sodium, which makes frozen and fresh produce the more healthful options.** Draining and rinsing canned vegetables and beans will reduce much of the sodium, though. Canned fruit is an option, but it is lower in vitamins.
- Many frozen vegetables (and occasionally entire meals) can be steamed in the same package. This can be very convenient when cooking at home, and this also is a healthful option because it eliminates the need to add extra oil or butter for cooking. Choose options that are without added cheese or sauces, which add fat and calories.
- Choose frozen meals infrequently, but when eating these, choose options that are marketed as “lean” or “healthy.” Choose balanced meals with lean meats (such as chicken or turkey breast) and lots of veggies on the side. Avoid those with added sauces or gravies. Picture the plate above and remember to balance protein, vegetables, low-fat dairy and fruit.

Eating Out		NDSU <small>North Dakota State University</small>
	Drink water, low-fat milk or other drinks without added sugar	
	Start meal with a salad	
	Choose steamed, grilled or broiled dishes	
	Avoid foods with creamy sauces or gravies	
	If portion sizes are too large, pack half of your food to go immediately	

Slide 20 – Eating Out

- Consuming a lot of unnecessary calories can be very easy by drinking several servings of sodas at a restaurant, particularly when refills are free. Avoid this by drinking lower-calorie or nutrient-dense beverages, such as water or low-fat milk.
- By starting with a salad before the meal, you may be able to control hunger, feel satisfied sooner and prevent overeating during the main dish. Be careful not to overeat free appetizers, such as chips and salsa.
- When choosing a main dish or protein, look for the words “steamed, grilled or broiled.”
- Creamy sauces, soups and gravies typically are made with fat and artificial dairy. Avoid these empty calorie items.
- Many restaurants serve very large portions. To prevent the temptation to eat the entire dish, pack about half of the food as soon as it gets to your table. Refrigerate it as soon as you get home and eat it the next day.

Other tips: (for more, go to www.ChooseMyPlate.gov)

- Avoid going to all-you-can-eat buffets.
- Ask for whole-wheat bread for sandwiches and subs.
- Choose small or medium-sized portions more often.
- Share a meal with a friend, or order an appetizer-sized portion instead of main dish to prevent overeating large portions. Many restaurants offer a “senior” portion size.



Slide 21 – Helpful Kitchen Tools for Low Vision

In this next section, we will look at some specific kitchen gadgets that can be useful when preparing foods in the kitchen. While some are intended to help those with low vision, many are just clever kitchen gadgets that may be helpful for anyone.



Slide 22 –

Remember, some adaptive, specialized tools will work for some people and not for others.

The top photo shows “finger tongs,” which can be helpful for those with low vision because the tongs come in bright colors that are easy to see and can make picking up foods easier. If the person with low vision has arthritis or any other condition that affects fine motor skills as well, this product also will be helpful.

The kitchen utensils on the bottom also are easy to see because of the bright-colored handle. The bottom right photo shows a stay-cool handle that can grip onto the side of a pot or pan. The utensils are easy to see and lessen the risk of a burn.



Slide 23 –

(Describing pictures from left to right, top to bottom)

- Using measuring cups that enhance contrast and have large-print markings may be helpful. Measure dark foods in a light-colored cup and vice versa to utilize contrast properly. Some people may want to add their own markings or signs to measuring cups.
- Using brightly colored knives may help those with low vision quickly find the preferred cutting utensil. This also may help ensure the cook grabs the handle rather than the blade. Always store all sharp knives and utensils in a tightly organized drawer or container, with all handles facing out. Another idea is to store knives in a knife block and always replace knives in the same slot (everything in its place).
- This photo shows a palm peeler, which eliminates the need to use a knife or vegetable peeler and, thus, decreases the risk of a cut.
- This gadget is helpful for those with low vision, but it also is helpful for those who wish to cut but have arthritis or other ailments that affect fine motor skills. The Safe Slice not only helps the cook hold onto the food easily, it also keeps that hand away from the knife, decreasing the risk of a cut.
- The tomato slicer and knife can help those with low vision cut anything that fits into the grip while decreasing the risk of cutting themselves.



Slide 24 –

These tools also help those with low vision when needing to chop vegetables or herbs.

(Describing from left to right, top to bottom).

- This first item is a VeggiChop. Rather than using a knife to dice onions, potatoes, carrots, tomatoes or any other food, the person with low vision simply can put the vegetables in the container and repeatedly pull the ring to quickly (and safely) chop the vegetable.
- The next tool is called Salad Shears and is useful for easily cutting salad greens or herbs (photos across the bottom demonstrate its use). Again, this tool allows someone with low vision to chop/cut leafy vegetables or herbs easily without the risk of cutting himself or herself with a knife.



Slide 25 –

The next few items focus on cutting boards. As previously discussed, using colored cutting boards that contrast with the food being cut and the surface that the cutting board is placed on is helpful. (Remember, different people with different degrees of low vision will have different color-contrast preferences).

These cutting boards, in addition to being brightly colored, also are flexible and, therefore, can help someone pour cut contents into a pot/pan (see bottom picture) easily.

Others may prefer a sturdy, nonslip cutting board. Either way, “store” the cutting board on the kitchen counter, cleaned and ready to put to work.



Slide 26 –

This tool is called a Prep’N Catch Food Collector. It can be placed underneath a cutting board and on the edge of a table so that after a food is chopped, it can be slid into this side collector easily. This collector also can be used to drain fruits/vegetables (see photo on bottom, far right).

Resources		NDSU EXTENSION SERVICE
http://aota.org/Consumers/consumers/Adults/LowVision/35190.aspx		
http://nei.nih.gov/lowvision		
http://ndvisionservices.com		
http://ndipat.org		
http://lowvisionchef.com		
www.shoplowvision.com		
http://assistivetech.net		
http://ameds.com/daily-living-aids/eating-aids/adaptive-eating-utensils.html		

Slide 27 – Resources

The listed websites provide assistive technology (including the products seen on the previous slides) that can be purchased to help with cooking or other daily living activities. They also contain many resources and tips for those with low vision and other common age-related problems.

- Occupational therapists, if trained in low-vision rehabilitation, can be the expert to help individuals relearn daily living activities. A doctor’s referral can help with insurance coverage.
- The National Eye Institute has a wealth of materials and tips for people with low vision.

- North Dakota Vision Services offers assistance for low vision and blindness.
- IPAT offers “try it first” adaptive equipment such as magnifiers (participants can take the equipment home, try it and then decide whether to buy).
- Vision Chef suggests kitchen gadgets for help in cooking.
- ShopLowVision has gadgets for cooking and other daily living activities.
- Assitivetechnology has gadgets for assistance with daily living. To find specific assistive products, use the search bar at the top of the browser. For example, search “kitchen” in the “products” part of the site to find assistive cooking technology.
- Ameds sells items that help with daily living, including particular service items for the dining room (such as the plate with no-slip bottom).

Resources

<http://Lowvision.org>

<http://lighthouse.org/navh>

www.visionaware.org

www.lowvision.com/tips

www.afb.org/section.aspx?FolderID=2&SectionID=4&DocumentID=1452ccvli.org/large-print-guidelines.html

www.goingblindmovie.com: "Going Blind: Coming Out of the Dark About Vision Loss"

Slide 28 – Resources

These websites contain more general tips but do not contain products to be purchased as do the websites on the previous slide.

The first four websites have general tips for coping with low vision.

The next two are websites specific to adapting computers or handouts/brochures for people with low vision:

- American Foundation for the Blind (AFB) provides tips for adjusting computer settings for those with low vision
- “Going Blind: Coming Out of the Dark About Vision Loss” is a film about learning to cope with vision loss. It is intended to raise awareness and support for vision loss. More information can be found at the website www.goingblindmovie.com. The film is available for purchase for educational uses. It also can be streamed online for less cost.

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Slide 29 – References

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- Lamoureux, E., et al. (2007). The effectiveness of low-vision rehabilitation on participation in daily living and quality of life. *Investigative Ophthalmology and Visual Science* (46). 1476-1482.

Slide 30 – References

Resources:

- <http://aota.org/Consumers/consumers/Adults/LowVision/35190.aspx>
- <http://nei.nih.gov/lowvision>
- <http://ndvisionservices.com>
- <http://ndipat.org>
- <http://lowvisionchef.com>
- www.shoplowvision.com
- <http://assistivetech.net>
- <http://ameds.com/daily-living-aids/eating-aids/adaptive-eating-utensils.html>
- <http://Lowvision.org>
- <http://lighthouse.org/navh>
- www.visionaware.org
- www.lowvision.com/tips
- www.afb.org
- www.goingblindmovie.com: "Going Blind: Coming Out of the Dark About Vision Loss"

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