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# Orientation and Mobility

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**To become certified in Orientation and Mobility a person must take two years of graduate classes and then pass a certification exam.**

Orientation and Mobility (O&M) Specialists use systematic techniques to teach people who are blind and have low vision to orient to their environments and move about independently.

Orientation is the process of using information received through the senses to know one's location and one's destination. It is also the knowledge of one's distance and direction relative to things in the surroundings and keeping track of these spatial relationships as they change during motion.

Mobility is going from a present location to a desired destination safely, efficiently and as independently as possible.

O&M can be thought of as asking three questions:

- 1.) Where am I?
- 2.) Where am I going?
- 3.) How will I get there?

A Certified Orientation and Mobility Specialist (COMS) is a professional who specializes in teaching travel skills to people who are blind or have low vision, including the use of canes, dog guides, and sophisticated electronic traveling aids, as well as the human guide technique.

Orientation and Mobility as a profession started after World War II when young soldiers were coming home with no vision. It was known as "Foot Travel" and Richard Hoover was the founding father of the profession.

## Examples of skills taught by COMS

- ✓ Crossing a street
- ✓ Becoming familiar in new surroundings
- ✓ Using routes to different locations

## Prices for assistive technology for mobility

- White Cane – \$12 and higher
- Adaptive Mobility Device – prices vary on the device
- Electronic Travel Aid – \$500 or higher



**"If you don't know where you are going, you will wind up somewhere else." – Yogi Berra**

# Eye Doctor Definitions

## **Optometry –**

Vision care specialty that deals with function and disorders of the eye, includes detection of disease and some types of management

## **Ophthalmology –**

Medical specialty that deals with the eye its function and diseases, including diagnosis and medical/surgical management

## **Ophthalmologist –**

Physician (MD) specializing in diagnosis and treatment of refractive, medical and surgical problems related to eye diseases and disorders

## **Optometrist –**

Doctor of optometry (OD) specializing in vision problems, treating vision conditions with eye glasses, contact lenses, low vision aids and vision therapy, and prescribing medications for certain eye diseases. They also provide training in the use of low vision aids.

## **Consult with a low vision doctor when**

- Ordinary eyeglasses or contact lenses do not provide clear enough vision to perform tasks such as reading, writing, driving or television viewing, special eyeglasses or low vision aids are necessary to help perform these tasks.
- An individual's current eye doctor cannot surgically or medically improve their vision; a low vision examination by a low vision eye doctor is needed.

## **Types of Low Vision Care Providers**

The following low vision care provider definitions are taken from the Kansas Optometric Association Low Vision Resource Guide.

### **Primary Low Vision Care Providers**

They will accept low vision cases when scheduled. Those appointments will not place an emphasis on low vision as a special service. This level would include the use of different techniques to measure acuity, introduction to the high add bifocal option and a limited selection of hand held optical devices. They refer to other optometrists providing more comprehensive low vision services when needed.

### **Secondary Low Vision Care Providers**

These Optometrists are required to complete annual continuing education specific to low vision care and/or prior residency training. The equipment they utilize would include multiple-acuity and contrast sensitivity assessment tools, trial frame refraction, reading and other functional evaluations, along with maintaining a complete inventory of hand held and spectacle mounted microscopes and telescopes. Coordination with occupational or other certified therapists is made available when needed to include aides to daily living, closed-circuit television, bioptic, and field limitation instruction.

The following is a alphabetical list by city of the primary office of OD's who have indicated to the Kansas Optometric Association that they provide low vision services to their patients according the to above definitions.

# Kansas Primary Providers

## Clay Center

Reeves, OD, Richard A.  
440 Lincoln, Box 185  
Clay Center, KS 67432  
Phone: 785-632-3822  
Fax: 785-632-5699  
E-mail: richard.reeves@kansasoptometric.org

## Dodge City

White, OD, Laurie B.  
Great Plains Vision L.L.C.  
2010 Central  
Dodge City, KS 67801  
Phone: 620-227-8622  
Fax: 620-227-7099  
E-mail: laurie.white@kansasoptometric.org

## Ellsworth

Gwinner, OD, LLC, G. Derril  
801 E. Third  
Ellsworth, KS 67439  
Phone: 785-472-3272  
Fax: 785-472-3360  
E-mail: derril.gwinner@kansasoptometric.org

## Fort Scott

Foulk, OD, Destiny D.  
624 S. National  
Fort Scott, KS 66701  
Phone: 620-223-6440  
Fax: 620-223-6988  
E-mail: destiny.foulk@kansasoptometric.org

## Hutchinson

Powers, OD, Tony G.  
6 East Second  
Hutchinson, KS 67501  
Phone: 620-663-6060  
Fax: 620-663-4253  
E-mail: tony.powers@kansasoptometric.org

## Oskaloosa

Holland, OD, Jeannette L.  
1106 Walnut Street  
Oskaloosa, KS 66066  
Phone: 785-863-2000  
Fax: 785-863-3333  
E-mail: jeannette.holland@kansasoptometric.org

## Wamego

Bettencourt, OD, Mark L.  
1405 West Hiway 24  
Wamego, KS 66547  
Phone: 785-456-8900  
Fax: 785-456-8902  
E-mail: mark.bettencourt@kansasoptometric.org

## Kueker, OD, Ryan

631 Lincoln, PO Box 27  
Wamego, KS 66547  
Phone: 785-456-2236  
Fax: 785-456-2570  
E-mail: ryan.kueker@kansasoptometric.org

## Washington

Stoppel, OD, Larry D.  
318 C Street, Box 155  
Washington, KS 66968  
Phone: 785-325-2289  
Fax: 785-325-3435  
E-mail: larry.stoppel@kansasoptometric.org

## Wichita

Durham, OD, Jeremy M.  
Wichita Family Vision Clinic  
437 N. Tyler  
Wichita, KS 67212  
Phone: 316-722-1001  
Fax: 316-722-1073  
E-mail: jeremy.durham@kansasoptometric.org

# Kansas Secondary Providers

## Augusta

Todd, OD, Mike E.  
2323 N. Ohio Street  
Augusta, KS 67010  
Phone: 316-775-6341  
Fax: 316-775-6680  
E-mail: mike.todd@kansasoptometric.org

## Dodge City

Kessen, OD, Lois Vierthaler  
208 W. Ross Blvd., Suite A  
Dodge City, KS 67801  
Phone: 620-225-6500  
Fax: 620-225-6597  
E-mail: lois.kessen@kansasoptometric.org

## Garden City

Hoch, OD, Robert L.  
707 Kansas Plaza  
Garden City, KS 67846  
Phone: 620-276-3381  
Fax: 620-275-7507  
E-mail: robert.hoch@kansasoptometric.org

Williams, OD, Dawn D.  
707 E. Kansas Avenue  
Garden City, KS 67846  
Phone: 620-276-3381  
Fax: 620-275-7507  
E-mail: dawn.williams@kansasoptometric.org

## Hays

Krug, OD, Kendall L.  
2203 Canterbury  
Hays, KS 67601  
Phone: 785-625-3937  
Fax: 785-625-7490  
E-mail: kendall.krug@kansasoptometric.org

## Lenexa

Metzger, OD, John C.  
11248 Strang Line Road  
Lenexa, KS 66215  
Phone: 913-469-8686  
Fax: 913-469-8688  
E-mail: john.metzger@kansasoptometric.org

## Hutchinson

Ridder, OD, Gina C.  
2701 N. Main, Suite A  
Hutchinson, KS 67502  
Phone: 620-663-8700  
Fax: 620-663-8713  
E-mail: gina.ridder@kansasoptometric.org

## Kansas City

Cline, OD, Ginger E.  
7701 State Line Road  
Kansas City, MO 64114  
Phone: 816-444-2900  
E-mail: ginger.cline@kansasoptometric.org

## Leavenworth

Strom, OD, Amanda R.  
Reifschneider Eye Center  
1001 6th Avenue, Suite 100  
Leavenworth, KS 66048  
Phone: 913-682-2900  
Fax: 913-682-8913  
E-mail: amanda.strom@kansasoptometric.org

## Oberlin

Gray, OD, Dirk M.  
105 S. Penn  
Oberlin, KS 67749  
Phone: 785-475-1200  
E-mail: dirk.gray@kansasoptometric.org

## Secondary Providers Continued

### Mulvane

Cline, OD, Kevin B.  
415 SE Louis Blvd.  
Mulvane, KS 67110  
Phone: 316-777-0022  
Fax: 316-777-4342  
E-mail: kevin.cline@kansasoptometric.org

### Parsons

Gilmore, OD, Wayne R.  
Eye Care Associates of Parsons  
501 Main  
Parsons, KS 67357  
Phone: 620-421-2330  
Fax: 620-421-8450  
E-mail: wayne.gilmore@kansasoptometric.org

### Pittsburg

Kannarr, OD, Shane R.  
101 W. 29th Street, Suite C  
Pittsburg, KS 66762  
Phone: 620-235-1737  
Fax: 620-230-0358  
E-mail: shane.kannarr@kansasoptometric.org

### Salina

Zerger, OD, Todd W.  
Eyecare Associates of Salina  
900 Westchester Dr.  
Salina, KS 67401  
Phone: 785-823-7403  
Fax: 785-825-8857  
E-mail: todd.zerger@kansasoptometric.org

### Shawnee

Gerson, OD, Jeffry D.  
16623 Midland Drive  
Shawnee, KS 66217  
Phone: 913-962-2010  
Fax: 913-962-2013  
E-mail: jeff.gerson@kansasoptometric.org

### St. Marys

Claussen, OD, Verne E.  
525 West Bertrand  
St. Marys, KS 66521  
Phone: 785-437-2978  
Fax: 785-437-6527  
E-mail: verne.claussen@kansasoptometric.org

### Topeka

Dotson, OD, Kyle B.  
2211 SE 29th  
Topeka, KS 66605  
Phone: 785-266-3240  
Fax: 785-267-3685  
E-mail: kyle.dotson@kansasoptometric.org

Nelson, OD, David A.  
4123 SW Gage Center Drive, Ste. 126  
Topeka, KS 66610-1422  
Phone: 785-273-6717  
Fax: 785-228-2029  
E-mail: david.nelson@kansasoptometric.org

### Wellington

Post, OD, Kristina L.  
313 N. Washington  
Wellington, KS 67152  
Phone: 620-326-3431  
Fax: 620-326-2759  
E-mail: kristina.post@kansasoptometric.org

### Wichita

Dulin, OD, Wade G.  
2330 Amidon  
Wichita, KS 67204  
Phone: 316-838-7797  
Fax: 316-838-7809  
E-mail: wade.dulin@kansasoptometric.org

## Secondary Providers Continued

### Wichita

Kater, OD, Bruce A.  
12111 W. Maple Street  
Suite 125  
Wichita, KS 67235  
Phone: 316-832-0026  
Fax: 316-832-0029  
E-mail: [bruce.kater@kansasoptometric.org](mailto:bruce.kater@kansasoptometric.org)

Park, OD, William L.  
610 N. Main Street, Suite 201  
Wichita, KS 67203  
Phone: 316-440-1690  
E-mail: [william.park@kansasoptometric.org](mailto:william.park@kansasoptometric.org)

Rios, OD, Hector G.  
3040-2 South Seneca  
Wichita, KS 67217  
Phone: 316-522-6311  
Fax: 316-522-6599  
E-mail: [hector.rios@kansasoptometric.org](mailto:hector.rios@kansasoptometric.org)

Stephens, OD, Andy P.  
Wichita Family Vision Clinic  
437 N. Tyler  
Wichita, KS 67212  
Phone: 316-722-1001  
Fax: 316-722-1073  
E-mail:  
[andy.stephens@kansasoptometric.org](mailto:andy.stephens@kansasoptometric.org)

# Degrees of Blindness and Eye Diseases

Blindness is a functional defect of part of the eye, optic nerve (moves information from the eye to the brain), or the brain that causes the inability to see.

The terms blind and blindness have been modified in our society to include a wide range of vision loss. Also, a person who has a vision loss but is not by definition blind may label themselves blind. Vision loss can be broken down into three categories:

1. **Blind** – a person who is blind may see only darkness or may have some light perception
2. **Legally Blind** – the best corrected vision for a person who is legally blind (i.e. eye glasses, contacts) is a visual acuity\* of 20/200 or less or having a visual field\* of 20 degrees or less in the better seeing-eye
3. **Severe Visual Impairment** – a vision deficit that affects an individual's life but does not fit under legally blind

The term **low vision** is used often, and that can refer to individuals who are legally blind or have a severe visual impairment.

**\*Visual acuity** – is a measurement of the eye's ability to distinguish objects details and shape, using the smallest identifiable object that can be seen at a specified distance. 20/200 can be described as what a person with 20/20 vision sees at 200 feet the person with 20/200 would see at 20 feet.

**\*Visual field** – is the measurement in degrees of the area visible to an eye while fixating straight ahead. A person with no field loss would have 180 degrees visual field. A person who could only see about the size of your fist (at arm's length) is comparable to 5 degrees.

A person who has low vision may see better during certain parts of the day or while doing certain tasks. It would not be uncommon to see a person using a white cane to enter a restaurant, find a seat and then read the menu. Maybe his eye condition affects his peripheral (side) vision so it is hard for him to see obstacles such as light poles, door frames, etc. but his center/detailed vision still allows him to read. The opposite could happen as well. A lady may walk into the restaurant without a white cane, find her seat without issue, and then ask the wait staff to read her the menu.

There are many eye conditions that can affect all people at any age. Some eye conditions develop later in life and some are congenital (inherited). These are a few common eye conditions and how they affect a person's vision:

## **Cataracts**

The lens inside of the eye which is clear and allows light to pass through becomes cloudy with cataracts. It can be described as looking through a dirty window or that the focus hasn't been adjusted. Depending how cloudy the lens is or if the whole lens is cloudy will determine the visual loss. Cataracts are usually associated with age but they can be congenital, caused by trauma or medications.



**TREATMENTS/HINTS:** Cataracts can be removed by surgery but for individuals who are not able to have surgery high contrast and low glare will help the person.

Images taken from: <http://www.harvardeye.com/cataract/images/imgCataract.jpg>

## **Cortical Visual Impairment (CVI)**

Cortical Visual Impairment (CVI) is a defect in the brain that does not allow the image seen by the eyes to be translated to the brain. CVI can affect visual acuity and/or visual field. CVI is common in infants who are born with other disabilities and a very low birth weight. CVI is confusing to some because there is nothing wrong with the eyes, the child sees fine, it is the connection to the brain where problems occur. Individuals with CVI will have a central vision loss and objects that are moving and/or are brightly colored seem to appeal to their senses.

**TREATMENTS/HINTS:** Reduction of glare and clutter, use of contrast and repetition are helpful.

## Diabetic Retinopathy

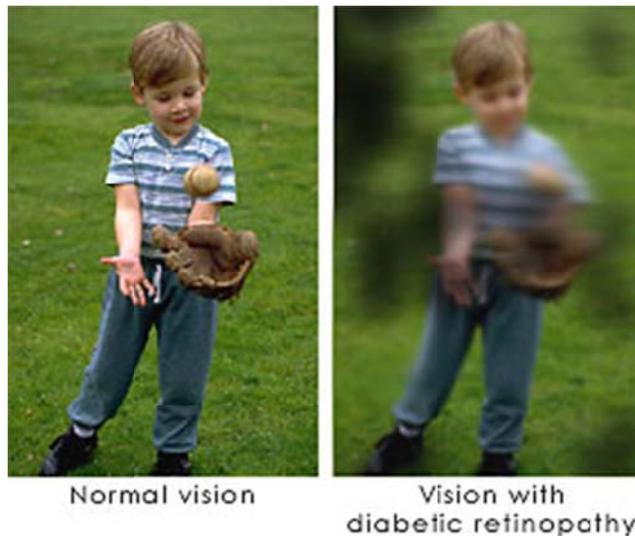
Twenty years after the onset of diabetes the person's chance of vision loss increases.

Diabetic Retinopathy causes the small blood vessels that are in the retina to deteriorate.

This causes the retina to become malnourished and can cause hemorrhages in the eye.

If blood is in the retina or in the middle of the eye it will cause the person to have spotted vision or look like as if viewing the world through Swiss cheese. Central vision can be affected if hemorrhage(s) occur on the macula.

**TREATMENTS/HINTS:** Reduction in glare, diabetic diet and diabetic education will be needed.



Images taken from: <http://www.stlukeseye.com/images/img-bdr.jpg>

## Glaucoma

Glaucoma is usually associated with pressure inside of the eye but there is another theory that it is caused by blood vessels not working properly and reducing the blood flow to the optic nerve. Whether caused by high pressure or reduction of blood flow, damage to the optic nerve affects the peripheral vision causing “Tunnel Vision” and can lead to blindness.

**EXTREME GLAUCOMA**



**ADVANCED GLAUCOMA**



**EARLY GLAUCOMA**



**NORMAL VISION**

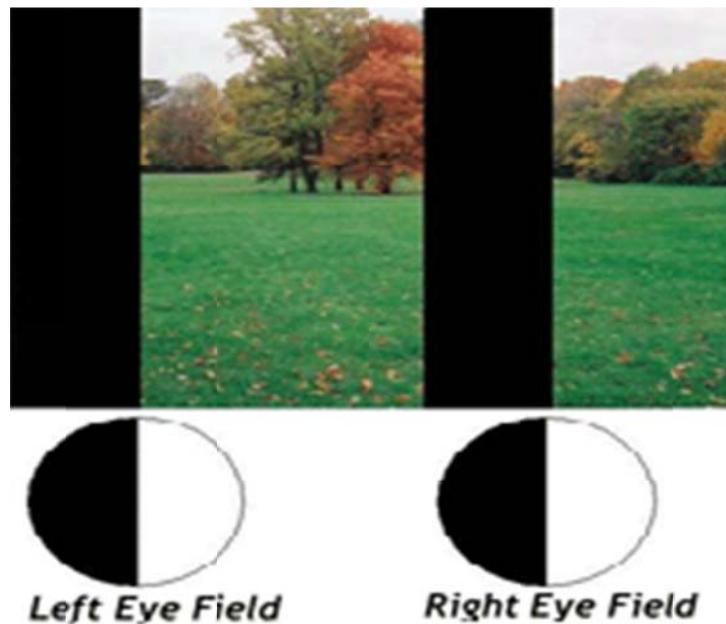


**TREATMENTS/HINTS:** Use direct light on objects, reduce of glare and distinct contrast will be the best environment for the person to use his/her vision.

Images taken from: [http://www.age-well.org/images/Glaucoma\\_adv.jpg](http://www.age-well.org/images/Glaucoma_adv.jpg)

## **Homonymous Hemianopsia (HH)**

Common causes of Homonymous Hemianopsia (HH) are stroke or head trauma, where part of the brain has been damaged causing a vision loss. If the stroke occurs on the right side of the brain then there will be a field loss on the left side and vice versa. People with HH will have some vision in both eyes but only part of the field. When looking at a book they may only see the right side of both pages which could cause hardship when keeping their spot on the line. Another condition can form known as “neglect”, which the person loses the knowledge that the side he/she isn’t seeing is there. In extreme cases, for example, a person will not put on his/her shoe on the side he/she cannot see.



Images taken from:

[http://www.laico.org/v2020resource/files/neuroophthalmology/visual\\_field.gif](http://www.laico.org/v2020resource/files/neuroophthalmology/visual_field.gif)

## **Macular Degeneration**

There are many forms of Macular Degeneration including the most common Age-Related Macular Degeneration (ARMD), Stargardt's disease, and Best's disease.

ARMD is the leading cause of vision loss in the United States. There are two forms wet and dry. Dry ARMD can turn into wet, but wet does not turn to dry again. Wet ARMD is when blood vessels start growing in the macula and are weak or bad and start leaking.

Both forms affect the macula, located on the retina, which controls the detailed vision.

People with a form of macular degeneration will lose their central detailed vision but macular degeneration will not cause total blindness.



**NORMAL VIEW**

**VIEW WITH  
MACULAR DEGENERATION**

**TREATMENTS/HINTS:** Using high contrast and good lighting are a must for individuals with macular degeneration.

Images take from:

[http://www.eschenbach.com/\\_pix/diseases/macular\\_degeneration.jpg](http://www.eschenbach.com/_pix/diseases/macular_degeneration.jpg)

## **Retinal Detachment**

The retina plays a major role in vision and is located on the inside back wall of the eye. It can become detached (partially or totally) by a head trauma, the eye growing irregularly, retinal tear/hole, or Marfan's Syndrome. The extent of the detachment will determine the amount of field loss the person will have. The location of the detachment will determine if the person has a loss of field or acuity. If the person has a partial detachment he/she will be warned not to participate in contact sports because a head trauma or jarring of the head could cause it to detach the rest of the way.



**TREATMENTS/HINTS:** Reduction of glare and good lighting will help the person.

Images taken from: <http://www.laretinasurgeon.com/textimages/retinal-detachment/affected.jpg>

## **Retinitis Pigmentosa (RP)**

Retinitis Pigmentosa is the degeneration of the retina which causes loss of night vision and peripheral vision. Individuals with RP may notice early on that they are unable to see at night, and then notice they have a ring around their vision which turns into “tunnel vision” and can progress into blindness.



**TREATMENTS/HINTS:** High contrast, bright light and no glare is an ideal environment for the person to view materials.

Images taken from:

[http://www.neurotechusa.com/objects/img/clinical\\_programs\\_retinitis\\_pigmentos a.jpg](http://www.neurotechusa.com/objects/img/clinical_programs_retinitis_pigmentos_a.jpg)

## **Retinopathy of Prematurity (ROP)**

Previously known as Retrolental Fibroplasia. Retinopathy of Prematurity (ROP) occurs when an infant has been on oxygen for an extended period of time and the retinal tissue has become dependent on the oxygen. The eye creates neovascular growth to try to produce more oxygen when the infant is taken off of the oxygen; the growth is weak and can cause hemorrhages, fibrous tissue and retinal detachments. ROP can cause a wide spectrum of functional deficits from issues with glare to blindness.

\* \* \*

Assistive technology such as: handheld magnifiers, closed circuit televisions, video magnifiers, stand magnifiers and telescopes could be items prescribed by a low vision specialist to help the person maximize the vision he/she has available. A reduction to glare, high contrast and sunglasses and/or a hat when outdoors are all recommended ways to increase vision. Many eye conditions increase sensitivity to light which makes the use of sunglasses or sun filters even more important.

\* \* \*

Many people will ask “Why can’t the eye doctor just make my glasses thicker?” A good explanation is eyes can be thought of as a movie projector on a screen. No matter how big the movie screen is, if there is a problem with the projector or a dirty projector lens the image on the screen will still be blurry.



## Blind/Low Vision Etiquette

Golden Rule: *"Treat others as you wish to be treated".*

Follow the Golden Rule and these 10 helpful tips:

1. Be yourself and remember the person who is blind or has low vision will know if you are comfortable or not. Use common phrases such as "See you later", "Did you see the show..."
2. Use person first language such as a person who is blind or has low vision not a blind person.
3. Communicate with the person, not the interpreter, companion, guide or assistant.
4. When meeting a person who is blind or has low vision always identify yourself and anyone with you. (This may not be necessary after meeting multiple times.)
5. Speak to the person using a natural tone of voice and speed.
6. Use the person's name whenever possible, especially in crowds so he/she know you are speaking to him/her.
7. Let the person know when a conversation is over so he/she isn't left talking to a wall.
8. When describing people, places or objects to a person who is blind or has low vision use descriptive language and do not leave out details that you think are unpleasant or unimportant.
9. Always leave items where you found them when assisting a person who is blind or has low vision.
10. Respect privacy and don't ask questions that would be inappropriate to ask any other person.

# Blind Etiquette

## DO's

- Do use common sense and treat the person like anyone else
- Do be patient with yourself in learning what specific needs the person may have
- Do be sensitive to the person's needs, whatever they may be and offer assistance when possible
- Do be patient with the person if he/she needs more time to communicate, walk, etc.
- Do ask the person if he/she need assistance
- Do announce when you enter and leave a room
- Do provide natural verbal cues when in passing (i.e. "Excuse me", "Hello")
- Do be an active listener
- Do use descriptive language to explain directions or where objects are (i.e. turn left, next to the noisy pop machine)
- Do answer question verbally
- Do offer your arm for assistance

## DON'Ts

- Don't be embarrassed if you do or say the wrong thing
- Don't automatically give help
- Don't move furniture or objects at the person's home or office without telling the person
- Don't be afraid to offer assistance
- Don't nod your head
- Don't do things the person can do by him/herself
- Don't be patronizing
- Don't honk your car horn to let a person know it is okay to cross a street
- Don't touch a person's cane or touch or talk to a guide dog without asking
- Don't assume anything about the person
- Don't take a person by the arm to assist him/her

## Core Service Delivery

The iKan program was designed not to discount the medical model, but to integrate with the independent living philosophy of choice and empowerment. Individuals who are blind or have low vision can choose to have iKan services delivered in their homes and communities. Supporting an individual's right to make his/her own choices and learn from his/her mistakes is a natural part of living and it is the independent living way. The iKan intent is to design our core service delivery to specifically meet the unique needs of individuals who are blind or have low vision without compromising the independent living philosophy.

The first step is intake. Intake information that differs from standard center for independent living intakes includes finding out the onset of vision loss, the degree of vision loss, the cause of vision loss, and any other disabling condition. The iKan intake form is in the last section of the iKan manual. During the initial intake it is wise to consider the following:

- ✓ Does the individual need vision medical attention?
  - Consider a referral to an optometrist to get eye condition stabilized
- ✓ Does the individual need money?
  - If the person desires work: consider making a referral to Kansas Rehabilitation Services
  - If the person is unable to work: consider a referral/assistance to apply for Social Security Disability Income (SSDI)

The next step is assessment. The iKan assessment form is in the last section of the iKan manual. You will notice that the iKan assessment includes a visual and physical profile along with orientation, mobility and communication skills that all pertain to vision. Centers for Independent Living can utilize their own assessments to gather the rest of the information.

Step three is naturally setting a goal and creating a plan utilizing a formal Independent Living Plan or an Independent Living Plan Waiver. The content of the goal and plans are the only differences. Examples of those delivery differences would be:

### **Information and Referral**

- Make referral to low vision ophthalmologist

### **Advocacy System & Individual**

- Social Security Administration Work Incentives are different for individuals who are blind or have low vision

### **Peer Counseling**

- Low Vision Support Groups

### **Deinstitutionalization**

- Education for family members and service providers about the consumer's needs to live independently

### **IL Skills Training**

- Marking and organizing household items

**Note: These tips are not new – they are pure Independent Living!**