



# INCLUSIVE 4-H

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## Youth and Visual Impairment

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### What is Visual Impairment?

Visual impairment is severe or complete loss of vision. People are considered to be legally blind if they have visual acuity of 20/200 or more, and/or they have a field of vision that is 20 degrees or less in the better eye. Severe visual impairment is defined as visual acuity between 20/70 and 20/200 and/or a field of vision of 30 degrees or less.

### What are Some Important Definitions to Know about Visual Impairment?

1. **Visual Acuity**—This is 20/20 for people with unimpaired vision. A visual acuity of 20/200 would mean, for example, that in order for the individual to see something that people without a visual impairment would be able to see from 200 feet away, they would have to be within 20 feet of it.
2. **Field of Vision**—The field of vision is 180 degrees for people with unimpaired vision. Loss of field of vision can occur centrally (impairment of what is seen in the center of either eye) or peripherally (what is seen from the side).

### What Causes Visual Impairment?

Visual impairment can be either congenital or acquired. Many of the types of vision loss occur primarily in the elderly, so 4-H leaders and extension educators may not have exposure to these types. Types of vision loss that one most likely will not be exposed to in the 4-H setting are diabetic retinopathy, glaucoma, cataracts, and macular degeneration.

Some types of visual impairments that leaders and educators may encounter include:

1. **Rubella**—Vision impairment along with other disabilities can be acquired if a mother contracts rubella during her first trimester of pregnancy. However, rubella is not common in the United States because of widespread vaccination.
2. **Accidents**—Accidents are a major cause of visual impairments in children. These can result from punctures, ruptures, or burns.
3. **Detached Retina**—This condition is present when a retina detaches, and a hole is torn in the outer wall. This decreases blood flow to the eye and creates blind spots. It is most often associated with some sort of trauma such as a car accident.
4. **Retinopathy of Prematurity**—This occurs in premature newborns when they are exposed to 100 percent oxygen for long periods of time.

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5. **Trachoma**—This is a major cause of blindness worldwide. It is caused by flies that spread microorganisms that, when they enter the eyes, cause infection and subsequent scarring on a cornea or eyelid. Due to improvements in sanitation, trachoma is not prevalent in the United States.
6. **Retinitis Pigmentosa**—This is an inherited disease that can lead to blindness in adolescence or early adulthood. It can create night blindness, tunnel vision, and loss of central vision.

## How are Visual Impairments Prevented or Treated?

Some types of visual impairments can be treated with laser surgery. This is the case for many incidents of detached retina. Prevention can also reduce the occurrence or visual impairments and slow the progression of degenerative eye diseases. Prevention methods include wearing proper safety glasses when participating in activities that could damage the eyes, such as performing experiments in a chemistry lab or when woodworking, wearing sunglasses when going outside, visiting an eye doctor regularly, controlling blood sugar, and eating a diet rich in antioxidants.

## Important Issues for Extension Educators and 4-H Leaders to Consider:

1. Have contact information for parents or guardians and the member's doctor in accessible places. An example of this would be behind the child's nametag and in the medical forms box which should be stored in the main office at 4-H events. This form should include information such as what kinds of medications the child is taking, allergies, if any adaptive devices are used, and other health conditions.
2. Visual impairments vary in extent and how a child chooses to live with the impairment, so it is wise to discuss with the child and his or her family about the member's individual condition. Questions that can be asked include: "What is the extent of your vision loss?" and "Do you prefer Braille or audio methods of obtaining materials?"
3. Only about one in 10 children with visual impairments choose to use Braille as their main way to use written materials. Most prefer audio tapes. It is important to discuss this with the 4-H member and his or her family so that they can obtain the materials in a way that is most suitable to their needs.
4. There are different options available to children with visual impairments that may help them navigate more effectively in their physical environment. These include use of a cane, guide dog, or a sighted guide. Take each individual's choices into account when planning events.
5. If a child uses a guide dog, instruct other members ahead of time that this particular dog is not a pet and should not be played with unless permission is obtained from the child and his or her parent(s). Also, limit the presence of any other animals that might interfere with the guide dog such as untrained dogs that may try to play with or attack the guide dog.

## For More Information Contact:

### American Foundation for the Blind

11 Penn Plaza, Suite 300

New York, NY 10001

Phone: (800) AFB-LINE or (800) 232-5463

Web site: [www.afb.org](http://www.afb.org)

(Web site active as of May 6, 2005)

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