

# CONNECTING TO THE WORLD:

Early Intervention with  
Young Children who are  
Blind or Visually Impaired

**Discussion Guide**

accompanies 24-minute video<sup>1</sup>

## **Connecting to the World: Early Intervention with Young Children who are Blind or Visually Impaired**

Copyright © 2003

All Rights Reserved

The Canadian National Institute for the Blind

No portion of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, or any information storage and retrieval system now known or to be invented, without permission from the publisher.

### **National Library of Canada Cataloguing in Publication**

Gold, Deborah, 1959-

Connecting to the world : early intervention with young children who are blind or visually impaired / writer and editor Deborah Gold.

Includes bibliographical references.

ISBN 0-921122-03-9

1. Children with visual disabilities. 2. Child development.  
I. Canadian National Institute for the Blind. II. Title.

HV1596.2.C65 2003

362.4'18

C2003-904222-7

Printed in Canada

To obtain copies of *Connecting to the World: Early Intervention with Young Children who are Blind or Visually Impaired*, please contact:

The Canadian National Institute for the Blind

National Office

1929 Bayview Avenue

Toronto, ON

Canada M4G 3E8

Tel: (416) 486-2500

Fax: (416) 480-7524

E-mail: [techaidssales@cnib.ca](mailto:techaidssales@cnib.ca)

[www.cnib.ca](http://www.cnib.ca)

This book is also available in alternative formats.

# Table of Contents

How We Learn . . . . .	7
Vision . . . . .	8
What is Vision Impairment? . . . . .	10
The Role of the Eye Doctor . . . . .	13
Each Diagnosis Is Unique . . . . .	14
Basic Anatomy and Function of the Eye . . . . .	16
The Functional Vision Assessment . . . . .	19
In the Grocery Store . . . . .	20
Ten Important Teaching Principles . . . . .	23
Working as a Member of the Team . . . . .	28
What is Family-centred Early Intervention? . . . . .	29
Conclusion . . . . .	30
References . . . . .	31
<i>Appendices:</i>	
A. Glossary of Terms . . . . .	33
B. Organizations With Resources for Children with Visual Impairments . . . . .	47
C. U.S. Resources . . . . .	69
D. Toys and Toy Companies . . . . .	70
E. Resources on Eye Conditions . . . . .	74
F. Other Web Sites . . . . .	75
G. Selected Other Internet Resources . . . . .	75
H. Selected Bibliography . . . . .	83
I. Evaluation Form . . . . .	87

# Acknowledgments

Beth and Amanda Bowen

Tyler and Denise DaSilva

Julia and Krista & Jonathan Janzen

Jason and Tracy Lamont

Douglas and Leslie Linn, and Angie  
Lethbridge

Sarah & Rachael and Donna  
McLaughlin

Issac and Tammy Solomon

Christopher and Kathy Soccee

Kari-Lyn Burkholder  
CNIB Early Intervention Specialist,  
Ontario

Lee-Anne Cross  
CNIB Early Intervention Specialist,  
Ontario

Jennifer Urosevic  
CNIB Early Intervention Specialist,  
Ontario

Raymond Buncic, M.D., FRCSC  
Chief of Ophthalmology  
Hospital for Sick Children  
Professor of Ophthalmology  
University of Toronto

Deborah Chen, Ph.D.  
Professor.  
California State University Northridge

Kay Ferrell, Ph.D.  
Professor of Education  
University of Northern Colorado  
Executive Director,  
National Center On Low-incidence  
Disabilities.

Patsy Newman  
Preschool Consultant Teacher, Blind  
and Visually Impaired, Atlantic  
Provinces Special Education Authority

Kevin Stewart, Ed.D.  
Vision consultant/Educator  
Toronto

## ***Special Thanks to***

CNIB Ontario Division

The Hospital for Sick Children, Toronto

Valu-Mart, Mitchell, Ontario

*Executive Producer*  
Deborah Gold, Ph.D.  
National Manager, Program  
Development, The Canadian National  
Institute for the Blind

*Produced and Directed by*  
James A. Applebaum

*Written by*  
Kevin Stewart, Ed.D.  
Deborah Gold, Ph.D.  
James A. Applebaum

*Editor*  
Hugo von Levezow  
triangle

*Camera*  
Walter Corbett  
Robert Holmes

*Sound*  
Brent Haliskie

This program made possible through a grant from



**Human Resources  
Development Canada**

**Développement des  
ressources humaines Canada**

**The principles in this video were adapted from:**

**Ferrell, K.A. (1997). Preface. What is it that is different about a child with blindness or visual impairment? In P. Crane, D.Cuthbertson, K. A. Ferrell, & H. Scherb (Eds.), *Equals in partnerships. Basic rights for families of children with blindness or visual impairment* (pp. v-vii). Watertown, MA: Perkins School for the Blind and the National Association for Parents of the Visually Impaired.**

Produced by  
The ALYN Group Inc.  
for  
The Canadian National Institute for the Blind  
© 2003



**The Canadian  
National  
Institute  
for the Blind**

[www.cnib.ca](http://www.cnib.ca)



---

*"Just think about how much children learn by looking and through seeing what's happening around the world. And with absence of that visual information, children who have significant vision loss are at a severe disadvantage for early learning and development in many, many ways."<sup>2\*</sup>*

— quote from Dr. Deborah Chen,  
California State University,  
Northridge, CA

## How We Learn

**T**his section of the video discusses how learning typically relies on vision. The literature on this subject states that we learn about 70-90 per cent of our information through vision. We take information in using vision, but even more importantly, vision helps us connect the information we get from the other senses (Ferrell, 2000). In her article on the growth and development of young children, Ferrell (2000) summarizes the important role of vision in development.

## **Vision:**<sup>3</sup>

- Gives a reason for movement;
- Provides continuous contact with the environment;
- Is an active sense that is under children's control because the eyes can be closed;
- Gives an estimation of space;
- Stimulates physical coordination and provides feedback for refining movement patterns;
- Allows for vicarious participation in movement (the child learns a great deal about rolling, throwing, pushing, pulling, without ever doing these activities);
- Provides information about sequence and totality of movement patterns;
- Provides a model for motor skills and gives feedback on the result;
- Facilitates body image and perception;
- Provides consistent, coordinated, and verifiable information;
- Is a strong motivator that stimulates self-initiated exploration of the environment;
- Provides an incentive for tactile exploration;
- Allows the child to learn and judge distance;
- Facilitates cognitive development;
- Connects the information coming from other senses;
- Provides an incentive for communication; and
- Helps children develop concepts.

For example, if we hear something in another room, we will often need to see it to know what we are hearing. Similarly, if we cannot see something we are touching, we will often need our vision to know what that touch means.

---

As stated by Dr. Kevin Stewart, “we take in information via five sensory modalities: hearing, sight, smell, taste and touch.” When the child is blind or visually impaired, however, “the sensory modalities have changed.” Dr. Stewart explains:

*They're not taking in the same information. They're not taking in that information that just happens, in the way that typical children are doing. Therefore it's the quality of their experience we have to consider, and how we give that quality. So our teaching methods and opportunities may be different.*

“Incidental learning” is the learning that takes place as children develop and observe the world around them (using all their sensory modalities). It is all the learning that takes place without teaching. For example, children watch their parents cooking and learn much about how toast is made, without ever being taught how toast is made.

On the other hand, a ten-year-old child who is blind may never know that toast and bread are in fact the same food, because she has never seen Mum put the bread in the toaster, and she has always been served toast without learning how to cook. We must be vigilant for the opportunities to compensate for visual impairment, through teaching what might otherwise be learned incidentally. One resource advocates teaching household skills at much younger ages than we would typically teach them, because we must compensate for the lack of incidental learning gained mostly through infants and toddlers watching family members perform tasks around the home (Lewis et. al., 1999).

**Study Question:**

Think about a child you know who is visually impaired. Design an activity that will allow the child to compensate for the vision loss and learn using the other senses he or she can use.

## What is Vision Impairment?<sup>4</sup>

Most professionals who work with children who are blind or visually impaired know very little about blindness or visual impairment prior to working with the child. Of course, the same is true for the families with whom you work. In one survey of the parents of preschool children who are blind or visually impaired, 75 per cent said they had little or no experience with blindness before their child was diagnosed. And most said they still needed more information about blindness and low vision. These conditions are termed “low incidence,” because the chances that a child will be blind or visually impaired are extremely slim in comparison with other congenital disabilities.

Researchers have found that children who are born with visual impairments do not view their blindness in a negative way. For most, blindness is simply part of who they are. As therapists, you are responsible for bridging the gap between the child’s sense of the world, and that of people who are sighted.

A person who is legally blind may have no vision at all, or could have some vision. The definition of legal blindness is:

**A visual acuity of 6/60 (20/200) or less in the better eye after correction (i.e. with glasses**

---

**or contact lenses) and/or a visual field of no greater than 20 degrees.**

Definitions of visual impairment have been developed according to the ability to perform a variety of everyday tasks. Visual acuity is the ability to see objects clearly. This is measured by the acuity charts usually found in an eye-care professional's office. This means a person who is legally blind, with his best eye and even with glasses, can only see at six metres (20 feet) something a person with average vision — 6/6 (20/20) — can see at 60 metres (200 feet).

Legal blindness can also mean that a person can see details clearly (6/6 acuity), but has a very constricted field of vision in both eyes. This is often called “tunnel vision.” Field of vision refers to how much of your surroundings you can see when your eyes are fixed straight ahead. A normal field of vision is 180 degrees with both eyes open. Tunnel vision is defined as a visual field of 20 degrees or less in the better eye.

Definitions of visual impairment have been developed according to the ability to perform a variety of everyday tasks. They are:

**Visual Impairment:** Any partial or total impairment affecting someone's ability to learn or perform the usual tasks of daily life. Visual impairment cannot be completely corrected with eyeglasses or contact lenses. This can also be called **vision loss or low vision.**

**Low Vision:** A visual impairment severe enough, even with correction, to impede a person's ability to learn or perform everyday tasks, but still allow the person to gather some useful information through the use of her eyes. This ranges from mild to severe and does not mean full loss of functional vision. This is often called **reduced vision or visual impairment**.

**Total Blindness:** Complete absence of vision, often referred to as **no light perception**.

Low vision may be like:

- Looking through a keyhole (**tunnel vision**);
- Wearing glasses that have been covered with black paint so a person can only see out the sides (**peripheral vision**); and
- Looking through a fogged window (**visual impairment**).

Practically, most eye-care professionals refer to people who are legally blind as having low vision. You will find that different professionals use many of the above terms interchangeably, and it will be challenging to understand how these terms relate to your child's vision. If you are not sure what a professional means by "legally blind," "low vision," or "visually impaired," ask for clarification.

*I don't think that a doctor should be allowed to tell parents that a child is blind without explaining what blindness is. I believed my daughter was completely blind. It was other professionals who told me she could probably see light, colour, and some movement, and that this amount of vision would be useful when walking on the street.*

— Parent

**Study Question:**

Think about a child you know who is visually impaired. Go to the files and look up the name of his or her condition. Conduct some research through the web and your own library, about that visual condition.

## The Role of the Eye Doctor

Eye care professionals provide an essential service to the child and the family. They provide what is called an “eye report,” which contains key information, and provides the basis for any individual service or program plan. The eye doctor may be a pediatric ophthalmologist, an ophthalmologist who sees children in a general practice, an optometrist or another eye care professional. It is important to understand each of their roles. These professionals will provide important information to the family. The family often requests support from professional team members in order to prepare for a meeting with the doctor. You can help by:

- Listening to the parents as they express their concerns;
- Suggesting family members prepare in advance by writing down their questions, helping the parents prepare the list;
- Becoming aware of community resources to which the parents may want referral by the doctor;
- Listening to the parents after each meeting with the doctor, and incorporating the doctor’s recommendations into your treatment or education plan;

- Communicating effectively with the doctor about your plan, so that your goals are understood; and
- Communicating with the care/education team, so that goals are formulated that can be supported by all team members.

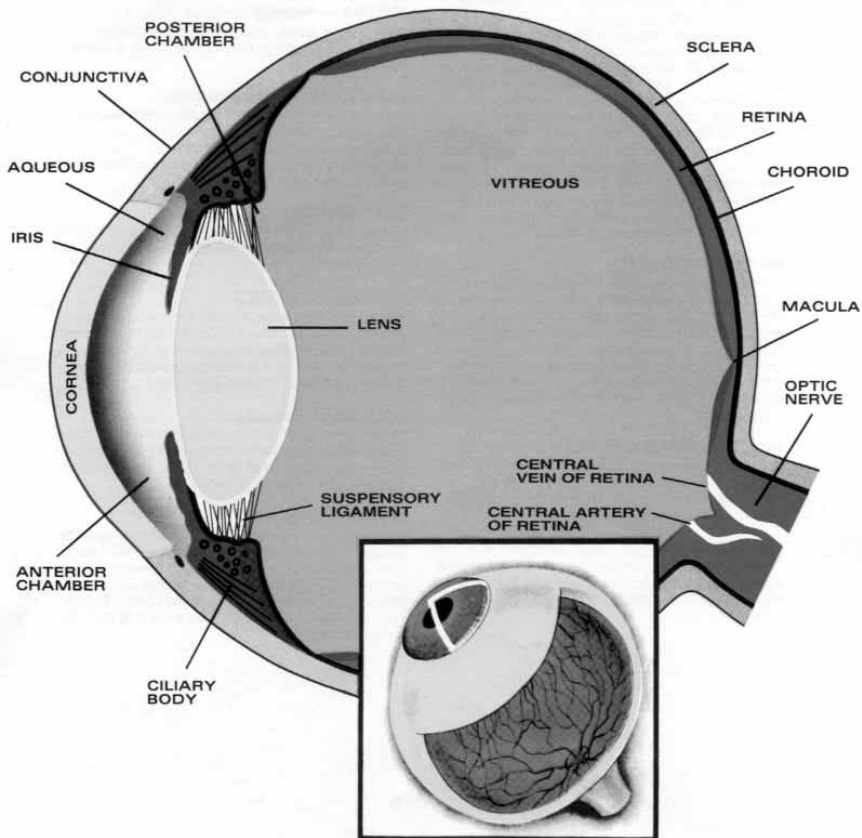
A glossary of key terms used in the field of vision rehabilitation, is included at the end of this manual. (See Appendix A)

## **Each Diagnosis Is Unique**

There are many conditions that can cause some degree of vision loss. Some involve structural damage or a malformation of the eye, such as cataracts. Some are part of an overall syndrome such as Down's syndrome, Usher's syndrome, or fetal alcohol syndrome. Some are hereditary, such as albinism. And some can be caused by an infection during pregnancy such as rubella, an accident at birth resulting in brain damage caused by lack of oxygen, or an infection after birth such as encephalitis. Although it is not very common, blindness in an infant can even be caused by chemical exposure during pregnancy, such as drugs, alcohol, nicotine, or environmental agents like pesticides.

Common diagnoses in newborns and infants are: nystagmus, in combination with other eye conditions, cortical visual impairment, and retinopathy of prematurity. Other eye conditions and terminology are described in the Glossary of Terms. (See Appendix A)

# THE HUMAN EYE



*Instructional Chart Supplied By:*

**MANITOBA OPTOMETRIC SOCIETY**

846-167 LOMBARD AVENUE, WINNIPEG R3B 0V3

TELEPHONE 943-9811

## Basic Anatomy and Function of the Eye

It often helps people to understand how the eye works. If we think of the eye like a camera, each eye receives light rays, which when focused through the lens, land on the retina (like film) as images. These images are passed along the optic nerve to the brain, as nerve messages. The brain receives these two images and combines them into one clear picture we can see. Any eye condition that interferes with this process affects how well or efficiently we see.

The following paragraphs outline aspects of some of the most common causes of blindness and visual impairment in children.

The CNIB Library for the Blind Information Resources Centre (1-800-268-8818) can access further information on specific conditions for registered clients (and their parents). You can refer a parent to this service.

**Cortical visual impairment** results from damage to the visual cortex or the posterior visual pathways. It is common among children who have severe multiple disabilities caused by brain damage. There may be no damage to the eye. The problem is with the part of the brain that is processing visual information received from the eyes.

**Nystagmus** is an involuntary movement of the eyes. The eye seems to jiggle or move slowly from side to side in a pendulum fashion. The primary cause is damage to the visual pathway from the eye to the brain, but it is sometimes found in children who have

---

a central nervous system disorder. Several types of nystagmus can be inherited and can appear in children in the first six months of life, but others develop later, perhaps the result of a stroke or blow to the head, and affect people who may have had normal vision for a long time. The angle of viewing is important, and people with nystagmus will often turn their head to one side — this is called “eccentric vision” — to find the “null” point where the effect of the eye movement is least pronounced and vision is best.

**Retinopathy of Prematurity (ROP)** is a condition that can cause damage to the retina in premature infants. It occurs mainly in low-birth-weight infants who are born premature, before the retina has had a chance to form fully. Proper development of blood vessels in the retina is obstructed by the premature birth. However, appropriate treatment can reduce visual impairment, and it is imperative that ophthalmic examinations begin by 31–32 weeks from conception. Over weeks, or perhaps months in many cases, the problem with the eyes often spontaneously corrects. In about 15 per cent of cases, this correction will not occur and complications from blood vessel changes, scarring, and sometimes total retinal detachment, can occur. Babies with ROP sometimes develop other eye conditions later in life, either caused by earlier surgeries or by genetics. The ROP itself may be accompanied by refractive errors, strabismus, and/or amblyopia. Total blindness with no light perception may also occur in some cases.

Other common types of visual impairments in childhood are:

**Albinism:** This refers to a group of inherited conditions in which there is a lack of body pigment. For some individuals, there is lack of pigment in their skin, hair, and eyes. This is called oculocutaneous albinism. This form of albinism has the general characteristics of fair complexion, light body hair, and a pale, translucent iris.

**Ocular albinism:** More commonly exhibited in males, this is a condition confined to pigment deficiency of the eyes. Both oculocutaneous albinism and ocular albinism are bilateral, non-progressive conditions.

**Strabismus:** This is the medical term for a misalignment of the eyes — when one or both eyes “cross” or look off to the side, or one eye looks up and the other down. A child can be born with this condition or it can develop after birth. When the eyes are like this, the person affected may see double or lack depth perception. Strabismus can also lead to loss of vision in the turned eye. If the condition is treated immediately, vision can often be restored. Treatment can consist of eyeglasses, an eye patch, or surgery. Strabismus often accompanies other conditions such as ROP.

There are many resources, both on the Internet and in textbooks, which explain eye conditions occurring in childhood. See the appendices for more resources. Appendix J, the selected bibliography, lists several good resources on childhood visual impairment. Often your eye specialist can offer introductory literature on a condition.

---

## The Functional Vision Assessment

While parents usually develop a fairly good idea of how well their child is able to use his vision, it's useful to have a "functional vision assessment" done. This is often done at no charge, perhaps by a vision rehabilitation counselor from the CNIB, a low-vision clinic in a hospital or university, an education specialist or an optometrist who works in low vision with children. You can refer a parent for a functional vision assessment.

Some people who are visually impaired have vision that can vary from day to day. Still, an assessment must be tempered by your experience and the experience of others who see the child regularly, such as teachers and early interventionists. Only those who are in regular contact with the child can fully appreciate how much vision he has and how well he is able to use it. Closely observe the child and make note of anything unusual in the way she sees things, in the appearance of her eyes, or in the way she uses her eyes.

The functional vision assessment tells family and professionals how well the child uses whatever vision she has. This is important because two children with exactly the same visual acuity and field of vision may have very different abilities to make use of that vision. Your observations can be very useful to the professionals performing the assessment.

*Our child saw a low-vision specialist, and this test gave us a lot of information about our son's functioning (for example, why he held his head in a certain position to read).*

— Parent

## In the Grocery Store

A trip to the grocery store is a prime example of the incidental learning described in section one, above. Let us look at the two different experiences:

### **Scenario One:**

Sarah and Rachael go shopping with Mum each week. These girls sit in the car, and as they approach the store, they know they are going shopping because they recognize the big letter symbol that tells them where they are. They eventually connect symbolic meaning to the symbol, and thus, they are learning literacy skills without being taught to read yet.

- As they sit in the cart, they observe how the store is laid out, they know that cereal is all together on one “aisle”, they understand that you go “up and down the aisles,” and that this is not the same as “up and down a staircase.”
- They see that all the fruit is together, and laid out so that it can be easily seen and touched.
- They learn that meat and fish can be got from special counters.
- They see big signs describing the products in each aisle, and as they get older, they practice their reading skills by reading the signs.
- They see the cashier, and she often talks to them.
- They see that Mummy gives money to the cashier for the food, that the food is placed in bags, that you can buy things that are not food, that the bags go in the cart, that the cart can be wheeled to the car, and so on!

- 
- They also see other friends at the store, they see babies in grocery carts, and so on.
  - At the grocery store they learn about jobs, about money, about food, and so much more.

But this is just one place in daily life where incidental learning takes place. Multiply this experience by 100, and you will get the number of opportunities there are daily for incidental learning by infants and preschoolers.

### **Scenario Two:**

Jason goes to the store with his Mum, and she lets him play with the door first. He is blind, and he likes to hear the door opening when he steps on the pad. He does this over and over again, fascinated by the effect caused by his action. He doesn't know how it works and he can't rely on his vision to see the door opening and closing, but he is learning about cause and effect, an important concept for later cognitive and motor skill development.

They enter the store, and Mum puts him in the cart for convenience. When he is older, he may hold the cart and walk with her, but for now, it makes sense to have him where he is safe, and where she can bring the store to him to experience. Now begins the talking and the touching, the smelling and the tasting. This little boy needs to be provided with experiences that allow him to explore his world using all his senses.

Mum replaces incidental learning with actual concrete objects and description: "here is a cereal box, what cereal do you think it is? All the cereals are the same, all in boxes, but some feel and sound different when you shake them."

Here, Mum is teaching the skill of discrimination, an essential skill for later development and learning. When he is older, the child can discriminate between the amount of shopping he can do independently and the degree of help he may need from others.

With his Mum, the child will learn exactly where his preferred boxes are located, and clues to finding them; they may work with the grocery store owner so that he informs them when there are changes to the store, and puts Braille marks on the shelves for this young man.

There is much to do to enhance independence in the future. But for now, the focus is on learning about the environment at the level of challenge required by the child. There is much to be done, and the goals set by parents in this area must be reinforced and supported by professionals.

At the same time, professionals can encourage parents to think about the ways children can learn through tactual and olfactory observation, and through description of the world around them.

**Study Assignment:**

Think about a child with whom you are working. Design a program with the goal of increasing early childhood development skills through tactual and descriptive experiences. Introduce the program to the parents and ask permission to implement it.

---

# Ten Important Teaching Principles

The ten principles outlined in this video are adapted from a brief article by Dr. Kay Ferrell, in which she outlines some principles for teaching young children. The ten principles we have outlined are:

## 1. Make No Assumptions.

*Don't assume that a visually impaired child is not going to be able to do something, but don't assume that they can do it either.*

— Dr. Kay Ferrell

Children with visual impairments are as individual as any other group of children, each with their own personality, needs, and abilities. Even when performing an assessment on a child, remember that the developmental milestones that have been developed as benchmarks for your assessment tools, were not developed with children who are blind or visually impaired. You will need to adapt assessment tools, or use those developed specifically for children with visual impairments.

## 2. Adopt the child's point of view.

Although this is challenging, the child who is visually impaired or blind has a different way of seeing the world than a child who is sighted, and this is okay! It takes time to get to know the child, but it is important to take this time. As you spend more time with the child, you will come to understand better how he moves around his environment, how he uses his other senses to tell him about his world, and how he learns. This understanding will permit you to adopt his point of view.

### 3. Learning proceeds from the parts to the whole.

Dr. Ferrell describes this concept in the following way:

*While most people learn by looking at the whole picture before examining the parts, children with blindness and visual impairment learn the other way around. (Ferrell, 2000)*

Children with visual impairments or blindness are limited by what can be heard, touched, tasted, felt or seen at any point in time. If we think of the concept of “dog” for example, we can understand the issue quite clearly. The sighted baby sees many dogs from her stroller, on television, and in books. She begins to relate the pictures of doggies to the dogs she sees on the street. Her family may own a dog, she may have had the dog lick her face, and she may have seen it wag its tail.

The child who is blind or severely visually impaired has not seen real dogs or images of dogs. A raised line drawing will not help him develop the concept of “dog.” Listening to a tape of dogs barking will teach him the sounds that some dogs make some of the time, but what are they really like?

A visit to a friend with a real dog will help teach the concept of “dog”. The teacher or parent can supervise the patting of the dog from head to tail. The child can gently touch the nose, all the paws, and the belly. As the child grows, there is much more to learn about dogs. When Mummy says, “there’s a big doggy coming our way, his owner is walking him on a leash,” the child will have an accurate-enough concept of “dog.”

---

#### **4. Allow time for learning.**

With all the suggestions outlined above, children who are blind or visually impaired often need more time for learning. Allow a realistic amount of time for a child to develop a new concept or skill, and you will be richly rewarded!

#### **5. Be systematic, clear-cut, meaningful and concrete.**

Most important is the notion of teaching using “concrete” examples. Children who are blind or visually impaired benefit most when they can feel, smell, touch, taste, and hear an object. If you want to teach a concept (like the concept of “dog” outlined above), do it in a way that makes the most sense for the child, rather than using standard teaching tools developed and tested only with children who have full vision. You are challenged to adapt your methods and materials in order to be as concrete as possible with the child.

#### **6. Structure the environment.**

The child needs to be able to orient to the environment. As we would with an adult who is blind, we must provide an orientation to the environment, and then, if we move anything, inform the child. For any child who has any independent mobility whatsoever, it is absolutely essential to be organized in the storage of materials, to have codes for indicating what is stored where, and to provide a full orientation for the child. What do we mean by codes? If the child is not yet reading, then use a tactile symbol to indicate what is in the container. For

example, fasten a piece of fuzzy material to represent the box of scrap fabrics, a crayon on the outside of the crayon box, and so on. A consultation with a qualified teacher of the visually impaired, or an e-mail message to a school for the blind (several are listed in the back of this manual), will assist you further.

## **7. Use voice and touch to cue the child.**

How does the child know you are there? You need to let her know each and every time, by stating who you are, and providing a tactile cue. All children with a visual impairment, including those with multiple disabilities, benefit from this information. It is important to remember not to play guessing games with the child. Never ask a child to recall who you are just from the sound of your voice. Children who are blind or visually impaired, like adults, benefit from a greeting that includes your name, such as, "Hi, Douglas, it's Jennifer, how are you?" accompanied by an appropriate touch.

Saying the child's name will help to focus his attention. You may also want the child to have a tactile cue, such as a piece of jewelry or other identifier that you will always have with you. With children who are both deaf and blind, this is strongly recommended. Some professionals use a ring, a bracelet, or a feature of their physical make-up, such as long hair or thick eyebrows. They gently guide the child's hand to the tactile cue before beginning any further interaction. And always use your voice to indicate where you are in the room, if you are moving away from the child, if you are leaving the room, and so on. The child relies on you to give her this information.

---

## **8. Use the body as a reference point.**

All young children learn their body parts early; it is common for all children to learn body parts, for example, in the bath, and teaching babies about their own bodies is often one of the earliest lessons they learn. They learn that they have a little nose, and Daddy has a big nose; they learn how to grasp their toes and put them in their mouths.

All of this learning is extremely useful for children who are blind or visually impaired. If you want to help a child locate the ball they have dropped, you can say, “it is beside your knee, on the floor, touch your knee, then move your hand down,” and you can guide their hand as you speak. Children learn their body parts at an early age, and then the body can be used as a reference point both in the early years and later on.

## **9. Encourage maximum independence in all activities.**

Rehabilitation teachers have met thirteen-year-old young people with visual impairments (who otherwise are physically and cognitively capable) who have never learned to tie their shoes, cut carrots, or make toast. Professionals have many stories of this kind. This “learned helplessness” is, in fact, quite common among young people who are blind or visually impaired.

Successfully employed adults who are blind, when asked about the key factors that have contributed to their success, will often describe the degree to which their parents insisted they do things for themselves.

They consider the high expectations set by Mom and Dad regarding activities around the house, as key to their success today. Whether we are talking about the simple act of placing a product into the grocery cart after examining it, or enhancing the child's ability to select food, wash the car, use a household appliance, or make his bed, there is an element of independence that can be encouraged in every activity for every child at every age. Professionals can infuse therapeutic or educational programs with the level of challenge and independence appropriate for the child, and encourage parents about the child's abilities. Sometimes it is the other way around, and you as the professional may hear from a parent that her child can do far more for himself than you are allowing.

#### **10. Provide experiences in different positions.**

Children need to receive experiences in a variety of positions. Very young children with visual impairments must be encouraged to sit, stand, lie down, cruise, and move, based on their developmental stage, ability and age. As activities are completed in different positions, young children learn what is possible, are challenged to grow developmentally, to develop strength and ability, and to create the foundation for developing new skills.

## **Working as a Member of the Team**

The parents (often the mother, but not always) are usually at the center of a range of services for their child. The more disabilities experienced by the child, the more services that may be required by the child and family. Children with

---

multiple disabilities are in particular need of a coordinated team approach. However, children who are blind or visually impaired with no other disabilities may also benefit.

A coordinated team approach is essential so that information is neither missed nor duplicated, so that each member of the team understands the roles of every other, and sometimes, so that roles can be released with the team. For more information about teams, please refer to the sources at the back of this book.

## What is family-centred early intervention?

“Family-centred” does not necessarily mean that the parent is the “case manager” as indicated in the video. The service that is provided should be family-centred no matter the degree of ability of the family to coordinate services. What does this mean? The Division for Early Childhood defines the parameters of family-based practices:

*Family-based practices provide or mediate the provision of resources and supports necessary for families to have the time, energy, knowledge, and skills to provide their children with learning opportunities and experiences that promote child development. Resources and supports provided as part of early intervention/early childhood special education (EI/ECSE) are done in a family-centered manner so family-based practices will have child, parent, and family strengthening and competency-enhancing consequences.*

— from DEC Recommended Practices (2000, p. 39)

There are two important aspects of this definition of family-based practices. The first relates to the fact that “resources and supports” are broadly defined as any of those important for improving family functioning.

The second aspect of these practices is the focus on the way in which the supports and resources are provided in order to enhance the competency of parents and to strengthen the family unit.

## **Conclusion**

This video and discussion guide are designed to begin to fill the gap in information related to early intervention with children who are blind or visually impaired. For further information, please see the resource list in the next section. We hope you have found the information in this kit useful. Please take the time to complete the attached evaluation card, and mail it to the address on the reverse side. We look forward to hearing from you.

---

## References

- Division for Early Childhood. *Recommended Practices in Early Intervention / Early Childhood Special Education*. 2000. Sandall, S., M. McLean and B.J. Smith. Longmont, Colorado: Sopris West.
- Ferrell, K., 2000. *Growth and Development in Young Children*, in Holbrook, M.C. and Koenig, A. (Eds.), *Foundations of education, history and theory of teaching children and youths with visual impairments*. (2000), pp. 111-133. New York: AFB Press.
- Ferrell, K., 1997. Preface. What is it that is different about a child with blindness or visual impairment? In P. Crane, D. Cuthbertson, K. A. Ferrell, and H. Scherb (Eds.) *Equals in Partnerships. Basic rights for families of children with blindness or visual impairment* (pp. v-vii). Watertown, MA: Perkins School for the Blind and the National Association for Parents of the Visually Impaired. Boston: Hilton Perkins Foundation.
- Gold, D., 2002. *Finding a new path: Guidance for parents of young children who are visually impaired or blind*. Toronto, ON: The Canadian National Institute for the Blind.
- Lewis, S., S. Slay and E. Pace, 1999. *PATTER (Preschool attainment through typical everyday routines), study guide*. First Edition. Florida: Florida Division of Blind Services.



---

# APPENDICES

## A. Glossary of Terms<sup>5</sup>

### **albinism**

A hereditary condition, caused by an inability of the body to synthesize melanin, the substance in the body that creates the pigment in our skin, eyes, and hair. There can be decreased vision and involuntary eye movement (nystagmus). High refractive errors are common, such as myopia (shortsightedness) or hyperopia (farsightedness). There is usually significant sensitivity to light (photophobia).

### **amblyopia**

Often called “lazy eye,” this term means there is decreased vision in one eye from disuse stemming from strabismus (“turned eye”), opacities of the optic disc or nerve, unequal refractive errors, or growth difficulties of any kind during the “sensitive period” (up to 10 years old). Amblyopia is best treated during the “sensitive period,” usually by patching the stronger eye. The benefits of patching are noted when the dominant eye is affected by disease or trauma and the individual becomes dependent on the “lazy eye.” Amblyopia in both eyes (called “binocular”) is caused by high hyperopia (farsightedness) or astigmatism in both eyes that is not corrected at an early age.

### **aniridia**

Total or partial absence of the iris.

**anophthalmos or anophthalmia**

Absence of one or both eyeballs.

**anterior chamber**

The space in front of the iris and behind the cornea.

**astigmatism**

A refractive condition in which the surface of the cornea is not spherical, causing a blurred image to be received at the retina.

**binocular vision**

The blending of the separate images seen by each eye into a single image, allowing images to be seen with depth.

**CF**

Counting Fingers. A measurement of visual acuity at a fixed distance.

**CHARGE Syndrome or CHARGE Association**

CHARGE syndrome refers to children with a specific set of birth defects. "CHARGE" originally came from the first letter of some of the most common features seen in these children: C = coloboma, H = heart defects, A = atresia of the choanae (blocked nasal passages), R = retardation of growth and development, G = genital abnormalities, E = ear abnormalities and/or hearing loss. The diagnosis of CHARGE is based on finding several of these and possibly other features in the child. The diagnosis should be made by a medial geneticist. (Source: <http://www.chargesyndrome.org>.)

**choroid**

The layer filled with blood vessels that nourishes the retina.

---

## **ciliary muscles**

The muscles that relax the zonules to enable the lens to change shape for focusing.

## **coloboma**

Cleft or defect in the normal structures of the eye, caused by incomplete or improper fusion of tissues prior to birth. A coloboma can be located at any site in the lower part of the eye (iris, ciliary body, retina, optic nerve, etc.). Function varies widely depending on involved areas. High refractive errors and other defects are often associated with coloboma.

## **colour deficiency**

A sex-linked inherited condition where confusion between the red-green or blue-yellow colour axis exists. Red-green defects are commonly found in about 8% of males and 0.5% of females; blue-green defects are very rare. Colour deficiency can be present as an additional feature of a disease-related, acquired colour vision change.

## **cones, cone cells**

One type of specialized light-sensitive cell (photoreceptor) in the retina that provides sharp central vision and colour vision. Also see rods.

## **congenital cataract**

Cloudy or darkened (opaque) lens at birth that is significant enough to upset visual function. This condition is often hereditary and may be in one or both eyes. Cataracts must be surgically removed as soon as possible to allow for vision and thus maximal development of the central visual system. Both correction for refractive errors (glasses) and amblyopia treatment are usually indicated early on. In recent years, intraocular lenses are being implanted at

younger ages. A risk of post-surgical retinal detachment and glaucoma exists, therefore pressure must be checked regularly.

### **congenital glaucoma (buphthalmos)**

High pressure inside the eye accompanied by enlarged eyes and hazy corneas in a newborn or within the first six months of life. This condition is caused by developmental defects in the anterior (front) chamber angle, stopping normal drainage of eye fluid.

### **cornea**

The outer, transparent, dome-like structure that covers the iris, pupil, and anterior chamber; part of the eye's focusing system.

### **cryotherapy**

Surgical procedure using intense cold, sometimes used to treat retinopathy of prematurity.

### **cortical vision impairment (CVI)**

Blindness due to a malfunction in the brain, rather than in the eyes. Many children with CVI have normal eyes, but the vision centre of the brain ("visual cortex") is not functioning at its full potential and is thus unable to read the messages sent along the optic nerve. Electrodiagnostic testing is helpful in determining the level of vision (see VEP).

### **cyclopegic refraction**

The most accurate method of assessing an infant's or child's refractive error by temporarily paralyzing the lenses' ability to accommodate (focus) with cyclopegic eyedrops (atropine, cyclopentolate).

---

## **dilation**

A process by which the pupil is temporarily enlarged with special eye drops (mydriatic), allowing the eye care specialist to better view the inside of the eye.

## **electroretinogram (ERG)**

A measure of retinal function after light stimulation of the retina. Consists of several wave forms that show cone, rod, and other retinal cell activity. It is used to help diagnose certain retinal diseases such as retinitis pigmentosa.

## **endophthalmitis**

Infection within the eye's structures.

## **enophthalmos**

Sinking of the eyeball into the orbit (the skull structure around the eyeball).

## **enucleation**

Removal of the eyeball, leaving the eye muscles and other orbital contents intact. Usually children who have had enucleation are later fitted for a artificial eye, called a "prosthetic" eye.

## **esotropia**

This is eye misalignment in which one eye deviates inwards. There are many causes. Treatments include surgery, glasses, prism, and exercises. Strabismus may lead to amblyopia.

## **EUA**

Examination under anesthesia, often performed on infants to check intraocular pressure or to obtain detailed information from a thorough eye examination, which may not be possible in a younger child.

**exotropia**

Eye misalignment in which one eye deviates outwards (away from the nose), while the other fixates normally. Exotropia is a form of strabismus. See esotropia.

**fetal alcohol syndrome/fetal alcohol effect (FAS/E)**

Brain injury occurring during pregnancy (in utero) due to alcohol consumption by the mother. It takes very little alcohol to cause serious damage. Damage varies due to volume ingested, timing during pregnancy, peak blood alcohol levels, genetics, and environmental factors.

Damage can include loss of intellectual functioning (IQ), mild to severe vision problems (including eyelid anomalies, strabismus, myopia, and small (hypoplastic) optic nerves), higher than normal to dangerously high pain tolerance, deafness. For more information see FASlink (<http://www.acbr.com/fas/fasmain.htm>).

**fix and follow (f&f)**

Fix is slang for fixate, defined as the ability to move an eye to allow a viewed object to be imaged on the fovea. Follow implies the eye is able to actually move along with the object to allow it to remain imaged on the fovea. The two terms are often used together for reporting vision in very young infants.

**fovea**

The central part of the macula that provides the sharpest vision.

**HM**

Hand Motion. A measurement of visual acuity.

---

## **hyperopia (farsightedness)**

A refractive condition in which one has the ability to see distant objects more clearly than close objects. Hyperopia may be corrected with glasses or contact lenses.

## **hypotropia**

Downward deviation of one eye while the other remains straight and fixates normally (vertical strabismus).

## **iris**

The coloured ring of tissue suspended behind the cornea and immediately in front of the lens; regulates the amount of light entering the eye by adjusting the size of the pupil.

## **Leber's congenital amaurosis**

A congenital defect causing total blindness to moderate vision impairment in both eyes (bilaterally) that may be accompanied by involuntary eye movements (nystagmus), light sensitivity (photophobia), and sunken eyes. Diagnosed by noting reduced retinal function on an electroretinogram (ERG). Distinguish from Leber's optic atrophy, which is hereditary, progressive (often rapidly), optic nerve degeneration noted in men at age 20–30.

## **lens**

The transparent, double convex (outward curve on both sides) structure suspended between the aqueous and vitreous that helps to focus light on the retina.

## **lens dislocation (ectopia lentis)**

Partial displacement of the eye's lens. The fibres (zonules) that typically hold the lens in place are broken or absent. Lens dislocation is often associated with particular conditions, such as Marfan's syndrome.

**macula**

The small, sensitive area of the central retina that provides vision for fine work and reading.

**Marfan's syndrome**

A rare hereditary connective tissue disease characterized by extra long bones. More often found in males than females. These children are unusually tall, with long fingers and toes, relaxed ligaments, spine and joint deformities, congenital heart disease, and dislocated lenses. Individuals may be shortsighted (myopic), have large corneas, cataracts, eyelid drooping (ptosis), a turned eye (strabismus), and incomplete choroidal formation.

**microphthalmos or microphthalmia**

A congenital condition in which one or both eyes is abnormally small.

**myopia (nearsightedness)**

A refractive condition in which one has the ability to see near objects more clearly than distant objects. May be corrected with glasses or contact lenses.

**neurologic**

Pertaining to the nervous system, including the brain.

**nystagmus**

Involuntary movements of the eyes, usually bilateral and symmetric, that may be caused by impaired vision, impaired motor function (only mildly affected), or an impaired nervous system.

**OU/OD/OS**

O.U.: both eyes

O.D.: right eye

O.S.: left eye

---

**ocularist**

Professional who designs and fits artificial eyes.

**ophthalmic assistant, technician, technologist**

Allied health person in ophthalmology trained to perform preliminary examinations and specialized ophthalmic tests. Three levels of training exist to those certified by the Joint Commission on Allied Health Personnel in Ophthalmology (JCAHPO) - COA®, COT®, COMT®.

**ophthalmic resident, fellow**

A resident has completed medical school and earned a medical degree and is undergoing a further 3–5 year specialist training to be eligible to sit for Board examinations to become an ophthalmologist. A fellow may be undergoing sub-specialty training, for example, to be a pediatric ophthalmologist or retinal specialist.

**ophthalmologist**

A physician, licensed to practice medicine and eye surgery, who has completed an ophthalmic residency and successfully passed Board examinations

**optic disc/optic nerve head**

The circular area where the optic nerve connects to the retina.

**optic nerve**

The bundle of over one million nerve fibres that carry visual messages from the retina to the brain.

**optic nerve hypoplasia (ON hypoplasia)**

A congenital abnormality characterized by a small optic disc. The optic disc is often surrounded by a dark ring of

pigment (double ring sign). The resulting vision loss may be mild to significant.

### **optician**

Professional who makes and adjusts optical aids (spectacles and contact lenses) from refraction prescriptions supplied by an optometrist or ophthalmologist.

### **optokinetic nystagmus (OKN)**

Normal involuntary rhythmic eye movements produced by viewing a series of vertical bars or other patterned contours while the individual or target is moving. May be used to grossly estimate vision in the very young infant.

### **optometrist**

A vision care specialist who has earned a doctor of optometry degree. Prescribes spectacles, contact lenses, performs ocular examinations, and diagnoses disease. Refers to ophthalmologists for surgical treatment. The optometrist has training in low vision and may dispense low vision aids. The optometrist may also perform visual training for strabismus and amblyopia.

### **orthoptist**

A vision care specialist trained in a specific program after earning a preliminary degree. After passing Board examinations, works under the auspices of an ophthalmologist, usually pediatric or neuro-ophthalmologists. Specializes in the evaluation and non-surgical treatment of strabismus, amblyopia, and childhood eye disease.

### **papilledema**

Swelling of the optic disc caused by increased intracranial pressure. Papilledema can indicate neurologic problems, while vision may be normal.

---

## **patching**

Treatment for amblyopia consisting of covering the stronger eye to block out form vision and most light to force the development of the visual pathways and thus improve vision in the amblyopic eye. Must be performed before visual maturity occurs (see amblyopia).

## **peripheral vision**

Side vision; the ability to see objects and movement outside of the direct line of vision.

## **persistent hyperplastic primary vitreous (PHPV)**

The typical regression (slow disappearance) of embryonic eye fluid and vascular system fails to occur normally during fetal development. The affected eye is usually small (microphthalmic) with a shallow front (anterior) chamber. Cataracts and glaucoma are common.

## **posterior chamber**

The space between the back of the iris and the retina, filled with vitreous humour.

## **ptosis (blepharoptosis)**

Drooping of upper eyelid. Ptosis in both eyes usually results in a chin up head posture and ptosis in one eye in the young can result in a “lazy eye” (amblyopia).

## **refractive error**

A defect in the eye that prevents light from being simply focused on the retina (myopia, hyperopia, astigmatism). Eyeglasses and contact lenses allow for a sharp focus.

## **retinal detachment (RD)**

The retina is like the film in a camera. It “sees” the image coming into the eye. It can be thought of like food wrap, stretch around the back of the eye. In a detachment, the retina separates from the tissue holding it. A detachment usually happens after a small tear or hole that has resulted from degeneration of the outside edges of the retina, eye or head trauma, or very high shortsightedness (myopia). An RD usually requires immediate surgical repair. The amount of vision loss depends on the promptness of treatment, location of the attachment, and the patient’s ability to heal.

## **retinal hole**

A hole in retinal tissue usually caused by a tug or traction on the vitreous (the fluid in the eye chamber).

## **retinitis**

Inflammation of the retina.

## **retinitis pigmentosa (RP)**

A large group of inherited retinal degenerations in both eyes. Night blindness (rods are lost first) is followed by the loss of side (peripheral) vision, which progresses over many years to tunnel vision and possibly loss of central vision. Age of onset and progression varies with each individual. However, mode of inheritance is a possible predictor.

## **retinoblastoma**

Cancer of the eye. Treatment is often enucleation of the eye, in order to save the child’s life.

## **retinopathy of prematurity (ROP)**

Previously known as “retrolental fibroplasia.” A series of destructive retinal changes that may develop due to low

---

birth weight and extremely pre-term birth. Includes dilated, tortuous peripheral blood vessels, internal bleeding and scarring in the eye, and possible retinal detachment. ROP may result in significant vision loss. Treatment includes frequent exams and laser or extreme cold therapy (cryotherapy). ROP can be associated with glaucoma, cataracts, shortsightedness (myopia), enophthalmos, and strabismus.

### **rods, rod cells**

One type of specialized light-sensitive cell (photoreceptor) in the retina that provide side vision and the ability to see objects in dim light (night vision). Also see cones.

### **septo-optic dysplasia (Emorsier syndrome)**

A clinical triad consisting of optic nerve hypoplasia, nystagmus, and short stature resulting from pituitary dysfunction.

### **Stargardt's disease**

A hereditary macular degeneration that occurs between ages 6 and 20, characterized by central vision loss.

### **strabismus (squint)**

Eye misalignment caused by eye muscle imbalance (esotropia, exotropia, hypertropia).

### **Teller Acuity, Cardiff Cards**

A visual test that measures visual acuity in young, pre-verbal children.

### **TORCH infections**

An acronym that stands for toxoplasmosis, rubella, cytomegalovirus, herpes, which are all organisms that

cause intrauterine infection of the mother and can cross the placenta to infect the infant.

### **toxoplasmosis**

Infection from the protozoan *Toxoplasma gondii*, which affects many body tissues, especially the lungs, liver, and brain. Transmitted by cat feces, able to cross the placenta to an unborn child.

### **TYTT**

Abbreviation denoting “too young to test.”

### **Usher's syndrome**

A hereditary condition characterized by degeneration of the back part of the retina (the part to which the retina is attached). The vision loss is accompanied by congenital nerve deafness. In Type 1, the individual also has balance problems; in Type 2, the hearing deficit progression is very slow. In Type 3, the hearing impairment progresses rapidly during teen years and adulthood.

### **visual acuity**

The ability to distinguish details and shapes of objects; also called central vision.

### **Visual Evoked Potential (VEP) or Visual Evoked Response (VER)**

A computerized test that records the electrical activity in the occipital cortex, which is the part of the brain responsible for vision. The test finds defects in the optical pathways and is mainly used in teaching centres for infants with questionable capacity for vision and as a research tool.

**vitreous**

The transparent, colourless mass of gel that lies behind the lens and in front of the retina.

**zonules**

The fibres that hold the lens suspended in position and enable it to change shape during focus changes (accommodation).

## **B. Organizations With Resources for Children with Visual Impairments**

### **National Organizations**

Canadian Blind Sports Association  
7 Mill Street, Lower level  
Almonte, Ontario K0A 1A0  
Tel: (613) 256-7792

Canadian Deafblind and Rubella Association  
C/O 350 Brant Ave.  
Brantford, ON N3J 3J9  
(519) 754-5400  
<http://www.cdbra.ca>

Canadian Foundation for Aniridia Research (CFAR)  
3780 Verdun Ave., Suite 2  
Montreal, Quebec, H4G 1K6  
(514) 761-5998  
Web-site: [www.aniridia.org](http://www.aniridia.org)  
e-mail: [cfar@generation.net](mailto:cfar@generation.net)

## **Canadian National Institute for the Blind**

### **National Office**

1929 Bayview Ave.  
Toronto, Ontario M4G 3E8  
Tel: (416) 486-2500  
Fax: (416) 480-7700  
Web site: [www.cnib.ca](http://www.cnib.ca)

See listings by province for CNIB Division offices.

### **CNIB Library for the Blind**

1929 Bayview Ave.  
Toronto, Ontario M4G 3E8

Victoria Owen

Tel: (416) 480-7632

E-mail: [owenv@cnib.ca](mailto:owenv@cnib.ca)

**The following are some of the resources available from the CNIB Library, to CNIB library clients only.**

### **Talking Books and Books in Braille**

A wide selection of talking books is available. The library sells popular children's PrintBraille picture books with see-through braille overlays between the pages, tactile alphabet and number books, and braille books for children from kindergarten to Grade 4. Every summer, the library organizes The Braille Creative Writing and Accuracy Competition for braille users in Grades 1 to 12, and the CNIB Summer Reading Club provides books on tape, in braille, and on computer disk. A newsletter, Kidsworthy, is produced on audiocassette.

### **Models and Maps**

The library uses specially trained sculptors, painters, and other artists who turn flat print images into three-dimensional models and raised-line diagrams, graphs,

---

maps, and shapes, providing people who are blind or have low vision with illustrations they can read with their hands.

### **Magazines**

Magazines like *Boys' Life*, *National Geographic*, and *Seventeen* are available in alternate formats, such as audio tape.

### **Videos That Describe the Action**

The library also has descriptive videos — videotapes of popular movies, with audio added to describe the film's action.

### **Playing Music**

The Library has an extensive collection of instructional material in braille music code for learning different instruments.

### **Information Resource Centre**

The CNIB Information Resource Centre (IRC) is a reference service for CNIB clients, staff, and volunteers across Canada. An IRC information specialist will fulfill requests for information using on-site resources or those of the CNIB Library's partners. Information is delivered in the format requested (braille, audio, electronic text, print, large print). The French counterpart to the IRC is the Service de recherche documentaire (SRD). Contact the IRC by telephone at (416) 480-7498.

### **Britannica Online**

Library clients can also sign-up for free access to Britannica Online, via the Internet. This Web resource provides a multitude of reference sources, including a dictionary and a large selection of Web links collected by Britannica editors.

**KidsLink Web Site**

The CNIB Library maintains its own KidsLink Web site at [www.cnib.ca/library/for\\_clients/for\\_kids](http://www.cnib.ca/library/for_clients/for_kids).

**Canadian Ophthalmological Society**

610-1525 Carling Avenue

Ottawa, ON K1Z 8R9

e-mail: [cos@eyesite.ca](mailto:cos@eyesite.ca)

<http://www.eyesite.ca>

Site contains substantial public information.

**Canadian Organization for Rare Disorders (CORD)**

P.O. Box 814

Coaldale, Alberta T1M 1M7

Tel: (403) 345-4544

**The Foundation Fighting Blindness**

36 Toronto St., Suite 910

Toronto, Ontario M5C 2C5

Toll-free: 1-800-461-3331

**Glaucoma and Vision Impairment Society of Canada**

3950 Fourteenth Ave., Suite 106

Markham, Ontario L3R 0A9

**Literature for the Blind**

A service available free of charge from Canada Post allowing people who are blind and recognized institutions for people who are blind to mail, free of postage, specific items used by blind people. There are restrictions on the materials and the weight. Contact your local CNIB office or Post Office.

**La Magnétothèque**

French talking books

304-1030 Cherrier St.

Montreal, Quebec H2N 1H

---

National Federation of the Blind Advocates for Equality  
(NFBAE)

P.O. Box 5058, Station A  
Kelowna, British Columbia V1Y 8T9  
Tel: (604) 597-0775  
<http://www.nfbae.ca>

Retinoblastoma Family Association  
14 Annette Gate  
Richmond Hill, Ontario L4C 5P3  
Tel: (416) 737-2788

Specialink  
The National Centre for Child Care Inclusion  
PO Box 775,  
Sydney, Nova Scotia B1P 6J1  
Tel: 1-800-840-LINK or 1-902-562-1662  
Fax: 1-902-539-9117  
E-mail: [specialink@ns.sympatico.ca](mailto:specialink@ns.sympatico.ca)  
Web site: [www.specialinkcanada.org](http://www.specialinkcanada.org)

## **Alberta**

Canadian Association for Families of  
Children with visual Impairments (CAFVI)  
Tricia Wach  
26 Estate Crescent  
St. Albert, Alberta T8N 5X2  
Tel: (780) 460-5450  
E-mail: [stacorp@shaw.ca](mailto:stacorp@shaw.ca)

## **Canadian National Institute for the Blind**

Division Office  
12010 Jasper Avenue  
Edmonton, Alberta T5K 0P3  
Tel: (780) 488-4871

**District Offices:**

15 Colonel Baker Place, N.E.  
Calgary, Alberta T2E 4Z3  
Tel: (403) 266-8831

9728 Montrose Avenue  
#200 Aberdeen Centre  
Grande Prairie, Alberta T8V 5B6  
Tel: (780) 539-4719

100 Deveta Place,  
410 Stafford Drive South  
Lethbridge, Alberta T1J 2L2  
Tel: (403) 327-1044/5

102, 520 2nd Street, S.E.  
Medicine Hat, Alberta T1A 0C6  
Tel: (403) 527-2211

Box 101  
Red Deer, Alberta T4N 5E7  
Tel: (403) 346-0037

P.O. Box 872  
4920 – 47 Street  
Yellowknife, Alberta X1A 2N6  
Tel: (867) 873-2647

**Consulting Services**  
Belvedere Office  
13359 62 Street  
Edmonton, Alberta T5A 0V5  
Tel: (780) 472-4450

---

Educational Consultants for  
The Sensory Impaired (ECSI)  
155 Athabasca Avenue  
Sherwood Park, Alberta T8A 3V6  
Tel: (780) 464-5809

Children's Link Society  
#2, 4412 Manilla Road S.E.  
Calgary, Alberta T2G 4B7  
Tel: (403) 230-9158

Calgary Board of Education  
Student Services Support  
Parkdale Centre  
728 32 Street N.W.  
Calgary, Alberta T2N 2V9  
Tel: (304) 777-7240

## **British Columbia**

B.C. Blind Sports & Recreation Association  
235 – 5000 Kingsway  
Vancouver, British Columbia V5H 4V7  
Jane Blaine, Executive Director  
Tel: (604) 325-8638  
Fax: (604) 325-1638  
E-mail: [jane@bcblindsports.bc.ca](mailto:jane@bcblindsports.bc.ca)

Blind Children & Youth:  
Parents' Association of British Columbia (BCYPA)  
Box 113  
Coomb's, British Columbia V0R 1M0  
Archie & Sigrid McNab  
Tel: 1-888-813-3534

Fax: (250) 248-5034

Email: [arncnab@bcsupernet.com](mailto:arncnab@bcsupernet.com)

Canadian Association for Families of Children  
With Visual Impairments (CAFVI)

14562 – 75A Avenue

Surrey, British Columbia V3S 8T9

Tracey Alvernaz

Tel: (604) 502-7464

E-mail: [talvernaz@shaw.ca](mailto:talvernaz@shaw.ca)

### **Canadian National Institute for the Blind**

Division Office:

100 – 5055 Joyce Street

Vancouver, British Columbia V5R 6B2

Tel: (604) 431-2020

District Offices:

101 – 635 Victoria Street

Kamloops, British Columbia V2C 2B3

Tel: (250) 374-8080

247 Lawrence Avenue

Kelowna, British Columbia V1Y 6L2

Tel: (205) 763-1191

2350 Labieux Road

Nanaimo, British Columbia V9T 3M6

Tel: (250) 751-2342

100 – 490 Quebec Street

Prince George, British Columbia V2L 5N5

Tel: (250) 563-1702

2340 Richmond Avenue

Victoria, British Columbia V8R 4R9

Tel: (250) 595-1100

---

200 – 204 Black Street  
Whitehorse, British Columbia Y1A 6K8  
Tel: (867) 456-2407

Provincial Resource Centre for the  
Visually Impaired (PRCVI)  
106 –1750 West 75th Avenue  
Vancouver, British Columbia V6P 6G2  
Anne Wadsworth  
Tel: (604) 266-3699  
Fax: (604) 261-0778  
E-mail: [awadsworth@prcvi.org](mailto:awadsworth@prcvi.org)

Sunny Hill Health Centre for Children (SHHCC)  
Visual Impairment Program  
3644 Slocan Street  
Vancouver, British Columbia V5M 3E8  
Dr. Roberta Heaven  
Clinical Psychologist  
Tel: (604) 453-8300  
Fax: (604) 453-8301  
E-mail: [rheaven@cw.bc.ca](mailto:rheaven@cw.bc.ca)

## **Manitoba**

Canadian Association for Families of  
Children with Visual Impairments (CAFVI)  
43 Strongberg Drive  
Winnipeg, Manitoba T8N 5X2  
Terry Josephson  
Tel: (204) 986-6560  
Email: [tjosephs@city.winnipeg.mb.ca](mailto:tjosephs@city.winnipeg.mb.ca)

**Canadian National Institute for the Blind**

## Division Office:

1080 Portage Avenue  
Winnipeg, Manitoba R3G 3M3  
Tel: (204) 774-5421

## District Offices:

354 10th Street  
Brandon, Manitoba R7A 4G1  
Tel: (204) 727-0631

83 Churchill Drive, #303  
Thompson, Manitoba R8N 0L5  
Tel: (204) 778-8874

## Parents' Support Groups

One support group in Winnipeg meets once a month and one in the West District meets once every two months.

For further information, please contact Angela Romanyshyn, Early Intervention Occupational Therapist or Delcy Selymes, Director of Rehabilitation At (204) 774-5421 or 1-800-552-4893.

## Manitoba Blind Sports Association

200 Main Street, 4th Floor  
Winnipeg, Manitoba  
Tel: (204) 925-5694  
Fax: (204) 925-5916  
E-mail: [info@sport.mb.ca](mailto:info@sport.mb.ca)

---

Manitoba Public Library System  
Contact: Centennial Library (Main Branch), Special  
Services  
251 Donald Street  
Winnipeg, Manitoba R3C 3P5  
Tel: (204) 986-6489  
Local libraries distribute braille books and  
sensory kits.

Variety Club of Manitoba  
The Variety Club of Manitoba  
sponsors a one-week CNIB  
summer camp for children who  
are blind or visually impaired.  
For further information, please  
contact Delcy Selymes, Director  
of Rehabilitation, at (204) 774-  
5421 or 1-800-552-4893.

## **Atlantic Provinces**

Atlantic Provinces Special Education Authority  
(APSEA)  
Ophthalmology Dept.  
1WK Hospital for Children  
5850 University Avenue  
P.O. Box 3070  
Halifax, Nova Scotia B3J 3G9

Disabled Persons Commission  
2695 Dutch Village Rd., Suite 203  
Halifax, Nova Scotia B3L 4T9  
Tel: (00) 565-8280 or (902) 424-0592  
TTY: (877) 996-9954  
Fax: (902) 424-2667  
Web site: [www.gov.ns.ca/disa](http://www.gov.ns.ca/disa)

Blind Sport Nova Scotia  
co Oliver Pye  
12 Lakefront Drive, Apt. #2  
Dartmouth, Nova Scotia B2Y 3C3  
Tel: (902) 463-8383

## **Canadian National Institute for the Blind**

Division Office:

(Mainland Nova Scotia)  
6136 Almon Street  
Halifax, Nova Scotia B3K 1T8  
Tel: (902) 453-1480

District Offices:

(P.E.I., Cumberland Co., N.S.)  
284 Grafton Street  
Charlottetown, Prince Edward Island C1A 1L7  
(902) 566-2580

(Cape Breton, Pictou & Antigonish Co.)  
235 Townsend Street  
Sydney, Nova Scotia B1P 5E7  
Tel: (902) 564-5711

## **New Brunswick**

Atlantic Provinces Special Education Authority (APSEA)  
P.O. Box 6000  
Fredericton, New Brunswick E3B 5H1  
John McConnell, Provincial Supervisor, NB  
Tel: (506) 444-4737  
E-mail: [john.mcconnell@gnb.ca](mailto:john.mcconnell@gnb.ca)

---

Canadian Association for Families of  
Children with Visual Impairments (CAFVI)  
24 Demonts Avenue  
St. Andrews, New Brunswick E5B 2K4  
Katherine Kelly  
Tel: (506) 529-8343  
Email: [kskelly@ecoserve.ie](mailto:kskelly@ecoserve.ie)

### **Canadian National Institute for the Blind**

Division Office:

231 Saunders Street  
Fredericton, New Brunswick E3B 1N5  
Tel: (506) 458-0060

District Offices:

Keystone Building  
230 Douglas Avenue  
Bathurst, New Brunswick E2A 1C6  
Tel: (506) 546-9922

118 Highfield Street  
Moncton, New Brunswick E1C 5N7  
Tel: (506) 857-4240

160 Union Street  
Saint John, New Brunswick E2L 1A8  
Tel: (506) 634-7277

Premier's Council on the Status of  
Disabled Persons  
440 King Street, Suite 648  
Fredericton, New Brunswick E3B 5H8  
Fax: (506) 444-3001  
E-mail: [pcsdp@gov.nb.ca](mailto:pcsdp@gov.nb.ca)  
Web site: [www.gov.nb.ca/pcsdp](http://www.gov.nb.ca/pcsdp)

## **Prince Edward Island**

Atlantic Provinces Special Education Authority (APSEA)

St. Jean's School

335 Queen Street

Charlottetown, Prince Edward Island C1A 4C5

Jennifer Shields

Province Supervisor, PEI

Tel: (902) 368-4694

E-mail: [jcsheilds@gov.pe.ca](mailto:jcsheilds@gov.pe.ca)

Canadian Association for Families of  
Children with Visual Impairments (CAFVI)

24 Demonts Avenue

St. Andrews, New Brunswick E5B 2K4

Katherine Kelly

Tel: (506) 529-8343

Email: [kskelly@ecoserve.ie](mailto:kskelly@ecoserve.ie)

## **Newfoundland**

Canadian Association for Families of  
Children with Visual Impairments (CAFVI)

86 Round Pond Road

Portugal Cove, Newfoundland A1M 2Z3

Tel: (709) 895-2494

Email: [mibley@hotmail.com](mailto:mibley@hotmail.com)

## **Canadian National Institute for the Blind**

Division Office:

70 Boulevard

St. John's, Newfoundland A1A 1K2

Tel: (709) 754—1180

---

District Offices:

10 Main Street, #208  
Corner Brook, Newfoundland A2H 1B8  
Tel: (709) 639-9167

1A O'Neill Avenue, Box 442  
Grand Falls-Windsor, Newfoundland A2A 2J8  
Tel: (709) 489-6515/6573

Department of Education

Division of Student Support Services

P.O. Box 8700

St. John's, Newfoundland A1B 4J6

Consultant, Services for Students with Visual Impairments

Tel: (709) 729-0709

Direct Home Services Programme

Motor Vehicle Registration Building

P.O. Box 13122

St. John's, Newfoundland A1B 4A4

Dept. of Health & Community Services

St. John's Region

Tel: (709) 570-7907

Provincial Child Development Programme

300 Prince Phillip Drive

St. John's, Newfoundland A1B 3V6

Division Manager

Janeway Child Health Centre

Tel: (709) 777-4930

The Neuromotor Division

300 Prince Phillip Drive

St. John's, Newfoundland A1B 3V6

Child Health Programme

Janeway Child Health Centre

Tel: (709) 777-6554

## Ontario

Canadian Association for Families of  
Children with Visual Impairments (CAFVI)

383 Moonrock Avenue  
Sudbury, Ontario P3E 5X2

Debbie Barclay

Tel: (705) 522-4415

Email: bobdeb.barclay@sympatico.ca

120 Whyte Avenue

Dryden, Ontario P8N 1Z7

Erin Parkin

Tel: (807) 221-3258

Email: sparkin@mail.drytel.net

### **Canadian National Institute for the Blind**

Division Office:

1929 Bayview Avenue

Toronto, Ontario M4G 3E8

Tel: (416) 486-2500

District Offices:

1 May Street North, Unit D

Oshawa, Ontario L1G 7W8

Tel: (905) 436-7732

(Durham)

67 King Street

Brantford, Ontario N3T 3C8

Tel: (519) 752-6831

(Bruce-Dufferin-Grey)

895 Third Avenue, East

Owen Sound, Ontario N4K 2K6

Tel: (519) 371-2721

---

(Eastern Counties)  
222 Pitt Street  
Cornwall, Ontario K6J 3P6  
Tel: (613) 936-2300

(Essex-Kent)  
245 Janette Avenue  
Windsor, Ontario N9A 4Z2  
Tel: (519) 253-1900

(Haliburton-Kawartha-Pine Ridge)  
236 King Street  
Peterborough, Ontario K9J 7L8  
Tel: (705) 745-6918

(Halton-Peel)  
100 – 1270 Central Parkway West  
Mississauga, Ontario L5C 4P4  
Tel: (905) 275-5332

(Hamilton-Wentworth)  
1686 Main Street, West  
Hamilton, Ontario L8S 1G4  
Tel: (905) 528-8555

(Hastings-Prince Edward)  
11 Victoria Avenue  
Belleville, Ontario K8N 1Z6  
Tel: (613) 966-8833

(Kingston)  
826 Princess Street  
Kingston, Ontario K7L 1G3  
Tel: (613) 542-4975

(Niagara)  
Huntington Square  
211 Martindale Road  
St. Catharines, Ontario L2S 3V7  
Tel: (905) 688-0022

(Nipissing-Parry Sound)  
101 Worthington Street, East., #432  
North Bay, Ontario P1B 1G6  
Tel: (705) 472-3710

(Northeast)  
303 York Street  
Sudbury, Ontario P3E 2A5  
Tel: (705) 675-2468

(Northern)  
303 Fifth Avenue  
Timmins, Ontario P4N 5L5  
Tel: (705) 264-2312

(Northwest)  
229 Camelot Street  
Thunder Bay, Ontario P7A 4B2  
Tel: (807) 345-3341

(Ottawa-Lanark)  
1101 Prince of Wales, Ste. 135  
Ottawa, Ontario K2C 3W7  
Tel: (613) 563-4021

(Renfrew County)  
425 Cecelia Street, #0-102  
Pembroke, Ontario K8A 1S7  
Tel: (613) 735-1921

---

(Sault-Algoma)

763 Wellington Street, East  
Sault Ste. Marie, Ontario P6A 2M9  
Tel: (705) 949-2610

(Simcoe-Muskoka)

20 Anne Street, South, #10  
Barrie, Ontario L4N 2C6  
Tel: (705) 728-3352

(Southwest)

749 Baseline Road, East  
London, Ontario N6C 2R6  
Tel: (519) 685-8420

(Toronto)

939 Eglinton Avenue East, Unit 100-101  
Toronto, Ontario M4G 4E8  
Tel: (416) 412-9480

(Waterloo-Wellington)

180 King Street, South, #160  
Waterloo, Ontario M4G 1P8  
Tel: (519) 742-3536

(York Region)

10271 Yonge Street, 3rd Floor  
Richmond Hill, Ontario L4C 3B5  
Tel: (905) 883-8345

Ministry of Community and Social Services  
Community and Developmental Services  
80 Grosvenor Street, 7th Floor  
Toronto, Ontario M7A 1E9  
Tel: (416) 327-4954  
Fax: (416) 325-5554  
Web site: [www.gov.on.ca/CSS](http://www.gov.on.ca/CSS)

Ontario Federation for Visually Impaired Children  
P.O. Box 1116, Postal Station D  
Toronto, Ontario M6P 3K2  
Tel: (416) 767-5977

The W. Ross Macdonald School  
350 Brant Avenue  
Brantford, Ontario N3T 3J9  
Tel: (519) 759-0730  
Fax: (519) 759-4741

University of Waterloo  
School of Optometry  
Low Vision Clinic,  
Centre for Sight Enhancement  
Waterloo, Ontario N2L 3G1  
Tel: (519) 888-4708

## VIEWS

Vision Institute of Canada  
16 York Mills Road, Ste. 110  
Toronto, Ontario M2P 2E5  
Tel: (416) 224-2273  
Fax: (416) 224-9234

---

## Quebec

Association des parents d'enfants  
Handicaps visuels (AQPEHV)  
10, boulevard Churchill, bureau 203  
Greenfield Park, Quebec J2V 2L7  
Tel: (450) 465-7225  
Web site: [www.agpehv.gc.ca](http://www.agpehv.gc.ca)

Ecole Jacques-Ouellet  
1240, boulevard Nohbert  
Longueill, Quebec J4K 2P4  
Tel: (450) 670-2591

L'Institut national canadien pour les aveugles  
Division Office  
2155, rue Guy #750  
Montréal, Quebec H3H 2R9  
Tel: (514) 934-4622

Institut Nazareth et Louis-Braille  
1111 St-Charles Ouest  
Longueill, Quebec J4K 5G4  
Tel: (450) 463-1710 or 1-800-361-7063  
Web site: [www.inib.qc.ca](http://www.inib.qc.ca)

Institut Raymond Dewar  
3600, Berri  
Montreal, Quebec H2L 4G9  
Tel: (514) 284-2581  
E-mail: [ird@raymond-dewar.gouv.qc.ca](mailto:ird@raymond-dewar.gouv.qc.ca)

## **Saskatchewan**

Canadian Association for Families of Children  
With Visual Impairments (CAFVI)

Box 3520

Humboldt, Saskatchewan SOK 2A0

Janet and Warren Nunn

Tel: (306) 682-6698

### **Canadian National Institute for the Blind**

Division Office:

2550 Broad Street

Regina, Saskatchewan S4P 3Z4

Tel: (306) 525-2571

Email: [warjann@sasktel.net](mailto:warjann@sasktel.net)

District Office:

1705 McKercher Drive

Saskatoon, Saskatchewan S7H 5N6

Tel: (306) 374-4545

Early Childhood Intervention Program (ECIP)

3031 Louise Street

Saskatoon, Saskatchewan S7J 3L1

Sharon Miller

Provincial Coordinator

Tel: (306) 955-3344

E-mail: [sharon.miller@sacl.org](mailto:sharon.miller@sacl.org)

Saskatoon Board of Education

310 – 21st Street, East

Saskatoon, Saskatchewan S7K 1M7

Susan Carney

Consultant for the Sensory Impaired

Tel: (306) 683-8365

E-mail: [carneys@spsd.sk.ca](mailto:carneys@spsd.sk.ca)

---

Special Education Unit  
Saskatchewan Learning  
1945 Hamilton Street  
Regina, Saskatchewan S4P 3V7  
Garnett Frances  
Senior Program Manager  
Tel: (306) 787-0575  
E-mail: [gfrancis@sasked.gov.sk.ca](mailto:gfrancis@sasked.gov.sk.ca)

## C. U.S. Resources

American Foundation for the Blind  
11 Penn Plaza  
Suite 300  
New York, New York, U.S. 10001  
Web site: [www.afb.org](http://www.afb.org)

Blind Children's Center  
4120 Marathon St.  
Los Angeles, California, U.S. 90029-3584  
Tel: 800-222-3566  
Fax: (323) 665-3828  
Web site: [www.blindchildrenscenter.org](http://www.blindchildrenscenter.org)

Blind Children's Fund  
4740 Okemos Road  
Okemos, Michigan, U.S. 48864  
Tel: (517) 347-1357  
Fax: (517) 347-1459  
E-mail: [blindchfnd@aol.com](mailto:blindchfnd@aol.com)  
Web site: [www.blindchildrensfund.org](http://www.blindchildrensfund.org)  
Publication: VIP Newsletter for parents of preschoolers who are visually impaired, published quarterly.

The Hadley School for the Blind

700 Elm St.

Winnetka, Illinois, U.S. 60093

Toll-free: 1-800-323-4238 or 1-847-446-8111

Fax: 1-847-446-8153

Web site: [www.hadley-school.org/](http://www.hadley-school.org/)

The Hadley School for the Blind offers free correspondence courses to parents of children who are blind or visually impaired. All books and materials are also free of charge.

The Lighthouse: National Center for Vision and Child Development

111 East 59th St.

New York, New York, U.S. 10022

Tel: (212) 821-6160

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

Texas School for the Blind and Visually Impaired

1100 W. 45th St.

Austin, Texas, U.S. 78756

Tel: (512) 454-8631 or (306) 374-4448

Toll-free: 1-800-872-5273

Web site: [www.tsbvi.edu/](http://www.tsbvi.edu/)

## D. Toys and Toy Companies

Ablenet

1081 Tenth Ave. S.E.

Minneapolis, Minnesota, US 55414-1312

Toll-free: 1-800-322-0956

Fax: (612) 379-9143

Access switches, adapted toys, and household devices.

---

American Printing House for the Blind, Inc.

1839 Frankfort Ave.

P.O. Box 6085

Louisville, Kentucky, US 40206-0085

Tel: (502) 895-2405

Fax: (502) 895-2405

Educational aids and materials, braille writing and embossing, computer hardware and software, low-vision aids, electronic devices, watches, brailers

American Toy Institute, Inc.

Guide to toys for children who are blind or visually impaired

<http://www.toy-tma.org/industry/publications/blindcurrent/contents.htm>

Braille Book of the Month Club

National Braille Press

88 St. Stephen's St.

Boston, Massachusetts, US 02115

Tel: (617) 266-6160

Dragonfly Toy Company, Inc.

291 Yale Ave.

Winnipeg, Manitoba R3M 0L4

Tel: (204) 453-2222

Fax: (204) 453-2320

Manufactures and distributes items for children with special needs and items for play therapy.

Flaghouse

235 Yorkland Blvd., Suite 300

North York, Ontario M2J 4Y8

Toll-free: 1-800-265-6900

Fax (toll-free): 1-800-265-6922

E-mail: [flaghousecanada@flaghouse.com](mailto:flaghousecanada@flaghouse.com)

Positioning equipment, feeding equipment, toys, switches, etc.

**Kapable Kids**

P.O. Box 250

Bohemia, New York, US 11716

Toll-free: 1-800-356-1564

Vision stimulation toys, feeding utensils, tactile stimulation items, massagers, etc.

**L.S. & S. Group**

P.O. Box 673

Northbrook, Illinois, US 60065

Toll-free: 1-800-468-4789

Fax: (847) 498-1482

E-mail: [lssgrp@aol.com](mailto:lssgrp@aol.com)

Products for people with vision and hearing impairments, CCTV and computer adapted devices, watches, independent living aids, etc.

**Take-Out-Toy Service (TOTS)**

633 Wellington Cres.

Winnipeg, Manitoba R3M 0A8

Tel: (204) 452-4311

Volunteer Take-Out-Toy Service (TOTS) with over 400 toys, including a wide selection of books, puzzles, games, and cassettes located at the Rehabilitation Centre for Children. The membership fee is \$3 per year per family. Parents are encouraged to call ahead as there are limited office hours. Children with special needs who are referred by a rehabilitation specialist may join the switch club at no extra cost.

**TASH (Technical Aids and Systems for the Handicapped, Inc.)**

91 Station St., Unit 1

Ajax, Ontario L1S 3H2

Tel: (905) 686-4129

Toll-free: 1-800-463-5685

Fax: (905) 686-6895

E-mail: [tashcan@aol.com](mailto:tashcan@aol.com)

Access switches, toys, specialized products

---

Toysense Plus, Ltd.  
711 Belmont Ave. W.  
Kitchener, Ontario N2M 1P1  
Tel: (519) 571-9559

Items for children with special needs, toys, switches, eating utensils, "Quick Thick," battery device adapters, Tumbleforms products, unique baby shower and birthday gifts.

#### Toy/Resource Lending Library Service

The CNIB Manitoba Division has a Toy/Resource Lending Library Service for the parents of preschool children. The Lending Libraries are housed in the Winnipeg, Brandon, and Thompson CNIB offices. The CNIB occupational therapist helps parents choose the toys, explaining why the toy is appropriate, the skill the toy is designed to develop, and how it's used. Toys are lent after a loan agreement is signed, for up to a period of three months. They are often picked up or exchanged by the therapist during regular visits.

Toys for Special Children  
385 Warburton Ave.  
Hastings, New York, US 10706  
Tel: (914) 478-0960  
Fax: (914) 478-7030

Specially adapted toys, switches, toys designed for children with disabling conditions.

## E. Resources on Eye Conditions

National Organization for Albinism and Hypopigmentation  
(NOAH)

PO Box 959

East Hampstead, New Hampshire, US 03826-0959

Toll-free: 1-800-473-2310

Fax: (603) 887-2310

Web site: <http://www.albinism.org>

Parent Web board: [http://www.albinism.org/web\\_board/parent/webboard.html](http://www.albinism.org/web_board/parent/webboard.html)

ROPARD: The Association for Retinopathy Prematurity and  
Related Diseases

PO Box 250425

Franklin, Michigan, US 48025

Tel: 1-800-788-2020

E-mail: [ropard@yahoo.com](mailto:ropard@yahoo.com)

Canadian Foundation for Aniridia Research

Mrs. Nathalie Mainville, President

C.F.A.R.

3780 Verdun Ave., Ste. 2

Montreal, Quebec H4G 1K6

E-mail: [cfar@generation.net](mailto:cfar@generation.net)

Web site: <http://www.aniridia.org>

---

## F. Other Web Sites

### Cancer

<http://www.eyecancer.com>

<http://www.canadian-health-network.ca>

### Eye Problems, Diseases, or Conditions

<http://www.1-866-eye-tips.com>

### Leber's Congenital Amaurosis, Blindness & V.I.

<http://www.leberslinks.freeyellow.com/links.html>

### LCA & Related Links

### Optic Nerve Hypoplasia

<http://www.rnib.org.uk>

<http://www.lowvision.org>

## G. Selected Other Internet Resources

### The Adaptech Project

<http://www.omega.dawsoncollege/qc.ca/adaptech/adentoc.htm>

The Adaptech Project consists of a team of academics, students, and consumers. We conduct research on the use of computer, information, and adaptive technologies by Canadian college and university students with disabilities.

### A.A.P.O.S. (American Association for Pediatric Ophthalmology and Strabismus)

<http://med-aapos.bu.edu.html>

This site includes a public forum to post questions or request information and suggestions regarding visual

impairment. Replies may come from professionals and parents. Excellent source of information and support.

American Academy of Ophthalmology

<http://www.eyenet.org/>

American Academy of Optometry

<http://www.aaopt.org/>

American Toy Institute, Inc.

Guide to toys for children who are blind or visually impaired

<http://www.toy-tma.org/industry/publications/blindcurrent/contents.htm>

American Association of the Deafblind

<http://www.tr.wosc.osshe.edu/dblink/aadb.htm>

Association for Retinopathy of Prematurity and Related Diseases

<http://www.ropard.org>

Blind Babies Foundation (BBF)

<http://www.blindbabies.org/>

The mission of the Blind Babies Foundation is to provide services and programs that enable and empower families, professionals, and the broader community to meet the unique needs of infant and preschool children who are blind or visually impaired, or multihandicapped and visually impaired.

Blind Children's Centre

<http://www.blindcntr.org/bcc/>

Information regarding programs, services, and publications of the Blind Children's Centre in Los Angeles, California.

Good information for parents and professionals.

---

BlindKid-Software

E-mail: [blindkid-software-subscribe@egroups.com](mailto:blindkid-software-subscribe@egroups.com)

Blindness-Related Resources on the Web and Beyond

<http://www.hicom.net/~oedipus/blind.html>

Gregory J. Rosmaita's very comprehensive collection of blindness-related Web sites.

Blindness Resource Centre

<http://www.nyise.org/speech/blind.htm>

Another comprehensive site with many links to other blindness-related resources.

Canadian Association of Optometrists

<http://www.opto.ca/>

Provides public and member information including an outline of the profession, eye-care details, and related links.

Canadian Deafblind and Rubella Association

<http://www.cdbra.ca>

Canadian Health Network

<http://www.canadian-health-network.ca/customtools/homee.html>

Canadian Helen Keller Centre

<http://www.chkc.org>

**Canadian National Institute for the Blind (CNIB)**

<http://www.cnib.ca>

CNIB Technical Aids Services

[www.cnib.ca/divisions/ontario/programs/tech\\_aids/](http://www.cnib.ca/divisions/ontario/programs/tech_aids/)

CNIB List of Manufacturers and Vendors of Access Technology

[www.cnib.ca/related\\_sites/](http://www.cnib.ca/related_sites/)

CNIB Kidslink  
[www.cnib/library/kidslink](http://www.cnib/library/kidslink)  
sound sites

- interesting people
- homework helpers
- sports Web sites
- other Web sites for kids
- some Web sites for parents and caregivers

Canadian National Society of the Deafblind  
<http://www.cnsdb.ca>

Canadian Ophthalmological Society  
<http://www.eyesite.ca/>

Center for Applied Special Technology  
<http://www.cast.org/>

A not-for-profit organization that uses technology to expand opportunities for all people, including those with disabilities.

The Children's Literature Web Guide  
<http://www.acs.ucalgry.ca/dkbrown/>

Children's Vision Concerns  
<http://www.el-dorado.ca.us/~lois/>  
Publications about infants and preschoolers who are visually impaired.

Council for Exceptional Children, Division on Visual Impairments  
<http://www.edu.arizona.edu/dvi/welcome.htm>

Deafblind Link  
<http://www.tr.wou.edu/dblink/index.htm>

---

### Family Education Network

<http://familyeducation.com>

This is an excellent site for anyone looking for parenting information, including parents of children with special needs. It has a “search and respond” component in which parents can post a message regarding their child’s diagnosis, challenges they are facing, etc., and link up with parents of a child with similar challenges. Associated with *Exceptional Parent* magazine.

### Favourite Children’s Stories

<http://www.ala.org/parentspage/greatsites/lit.html>

### Games

<http://www.mindseye2.com>

<http://www.gmagames.com>

<http://www.pcsgames.com/pcs.htm#>

### Healthy Vision

<http://www.healthyvision2010>

Provides information on vision objectives, resources to help communities, and a forum for people to share ideas as we move toward achieving the 10 objectives in Healthy People 2010.

### Helen Keller National Centre for Deaf-Blind Youths and Adults

<http://www.helenkeller.org>

### Inclusion Press

<http://www.inclusion.com>

### International Society for Low Vision

<http://www.lighthouse.org/visres/isirr.html>

Internet Public Library

<http://www.ipl.org/youth/StoryHour/>

A great young children's story section.

Ivey Eye Institute

<http://www.iveyeye.ca>

Journal of Visual Impairment & Blindness

<http://www.afb.org/publications.asp>

Kids R Kids

<http://www/kidsrkids.org/>

Provides information and resources to enhance the quality of life for children and adults with disabilities.

Kidsworthy

<http://>

[www.cnib.ca/library/Kidsworthy/kidsworthy.htm](http://www.cnib.ca/library/Kidsworthy/kidsworthy.htm)

The CNIB's magazine for kids. Online audio.

Leber's Links

<http://www.leberslinks.freeyellow.com>

Message and discussion forum for parents of children with Leber's congenital amaurosis.

Lighthouse International

<http://www.vips.org/page6.html>

Low Vision Association

<http://www.lowvision.on.ca/>

Massachusetts General Hospital, Neurology Web Forum

<http://demOnmac.mgh.harvard.edu/>

This site includes a public forum to post questions or join in ongoing discussions regarding neurological disabilities, including brain injury, seizures, hydrocephalus, etc. Replies

---

may come from parents and professionals. Ongoing discussions offer lots of information and support.

#### Maxiaids

<http://www.maxiaids.com/>

This site provides a comprehensive catalogue.

#### The Military Police Fund for Blind Children

[http://www.vcds.dnd.ca/vcds/cfpm/blind/intro\\_e.asp](http://www.vcds.dnd.ca/vcds/cfpm/blind/intro_e.asp)

#### National Braille Press Children's Book of the Month Club

<http://www.braille.com/bookclub.html>

#### National Eye Institute

<http://www.nei.nih.gov/>

#### National Federation of the Blind (NFB)

<http://www.nfb.org/>

Founded in 1940, the National Federation of the Blind (NFB) is America's largest and most influential membership organization of people who are blind.

#### National Federation of the Blind Advocates for Equality (Canada)

<http://www.nfbae.ca>

#### National Library Service for the Blind — USA

<http://www.lcweb.loc.gov/nls>

#### National Organization for Albinism and Hypopigmentation (NOAH)

<http://www.albinism.org>

A Web board for parents, one for children, and one for teens.

National Organization of Parents of Blind Children (NOPBC)  
<http://www.nfb.org/brochure.htm>

The National Organization of Parents of Blind Children is a national membership organization of parents and friends of children who are blind, reaching out to each other to give vital support, encouragement, and information.

National Organization for Rare Disorders, Inc. (NORD)  
<http://www.rarediseases.org/>

Search the largest database of understandable information on rare disorders. Over 1,100 diseases are included. You may also search an alphabetical index of disease names and download full-text reports on diseases for a small fee.

Natural Life

<http://www.life.ca/hs>

Has a section on homeschooling.

Ocular Surgery News

<http://www.slackinc.com/eye/osn/osnhome.htm>

Resources for Parents and Teachers of Blind Kids

<http://home.earthlink.net/~deedaze/>

Registry of Early Childhood Visual Impairment and Deafblindness in Canada

<http://www.blindpreschool.ca>

Ron Marriage's Blind Links

<http://seidata.com/~marriage/rblind.html>

SNOW Kids!

<http://www.snow.utoronto.ca/snowkids>

---

SNOW: Special Needs Opportunity Windows

<http://www.snow.utoronto.ca>

An Ontario site for special education

TACK-TILES™

TACK-TILES™ are plastic, coloured blocks with raised dots looking much like lego. They can be used to teach Braille to very young children or children with multiple disabilities including vision impairment.

<http://www.tack-tiles.com>

Tel: 1-800-822-5845

V-Tech

Technological toys for all ages. Often available at retail toy stores.

<http://www.vtech.ca>

## H. Selected Bibliography

Ayres, A.J. 1983. *Sensory integration and the child*. Los Angeles, CA:Western Psychological Services.

Beelmann, A., and M. Brambring. 1998. "Implementation and effectiveness of a home-based early intervention program for blind infants and preschoolers." *Research in developmental disabilities*. 19, no. 3:225-44.

Behl, D.D., J. F. Akers, G. C. Boyce, and M. J. Taylor. 1996. "Do mothers interact differently with children who are visually impaired?" *Journal of visual impairment and blindness*. 90, no. 6.

Box, J., and A. Lancaster. 1997. *From cuddles to coordination*. Enfield, Australia: Royal Blind Society.

Chen, D. 1999. *Essential elements in early intervention: visual impairment and multiple disabilities*. New York: American Foundation for the Blind Press.

Division for Early Childhood. *Recommended Practices in Early Intervention / Early Childhood Special Education*. 2000. Sandall, S., M. McLean and B.J. Smith. Longmont, Colorado: Sopris West.

Dunnett, J. 1999. "Use of activity boxes with young children who are blind, deaf-blind, or have severe learning disabilities and visual impairments." *Journal of visual impairment and blindness*. 93, no. 4 (April).

Ferrell, K. 1998. *Project prism: A longitudinal study of developmental patterns of children who are visually impaired. Executive Summary*. CFDA 84.0203C-Field-Initiated Research. Tallahassee, FL: United States Department of Education.

Ferrell, K. 1999. *Healthy development of children and youth: The role of the determinants of health. An overview*. Ottawa: Ontario.

Holbrook, M. C. 1996. *Children with visual impairments: A parents' guide*. The Special-Needs Collection. Bethesda, MD: Woodbine House.

Lewis, S., S. Slay, and E. Pace. 1999. *PATTER (Preschool attainment through typical everyday routines) study guide*. First Edition. Florida: Florida Division of Blind Services.

- 
- Lueck, A.H., H. Dornsbusch, and J. Hart. 1999. "The effects of training on a young child with cortical visual impairment: An exploratory study." *Journal of visual impairment and blindness*, 93, no. 12 (December).
- MacCuspie, P.A. 1996. *Promoting acceptance of children with disabilities: From tolerance to inclusion*. Halifax, NS: Atlantic Provinces Special Education Authority.
- Poggrund, Rona L., Diane L. Fazzi, and Jessica S. Lampert, eds. 2<sup>nd</sup> ed. 2002. *Early focus: Working with young blind and visually impaired children and their families*. New York: American Foundation for the Blind.
- Recchia, S.L. 1997. "Play and concept development in infants and young children with severe visual impairments: A constructivist view." *Journal of visual impairment and blindness*. 91, no. 4 (July-August).
- Ross, S., and M. J. Tobin. 1997. "Object permanence, reaching, and locomotion in infants who are blind." *Journal of visual impairment and blindness*. 91, no. 1 (January-February).
- Royal National Institute for the Blind. *Guidelines for teachers and parents of visually handicapped children with additional handicaps*. London, England
- Warren, David H. 1984. *Blindness and early childhood development*. 2<sup>nd</sup> Edition, Revised. New York: American Foundation for the Blind.

## Endnotes

- 1 This project has been funded by Human Resources Development Canada and The CNIB.
- 2 All quotes in this study guide are from the video.
- 3 Adapted from Ferrell, K. (2000). Growth and Development in Young Children, in Holbrook, M.C. and Koenig, A. (Eds.), *Foundations of Education, History and Theory of Teaching Children and Youths with Visual Impairments*. (2000), pp. 111-133.
- 4 Source: Gold, D. (2002). *Finding a New Path: Guidance for Parents of Young Children who are Blind or Visually Impaired*. Toronto: The Canadian National Institute for the Blind.
- 5 This glossary is adapted, with permission, from the CNIB Ontario Division Children's Services Training Manuals. The definition of optometrist is taken from the Manitoba Optometric Society Instructional Chart (see Chapter 10, References). Terms about eye structures are taken from the Web site of the National Eye Institute, <http://www.nei.nih.gov/health/glossary.htm>.



## Evaluation Form

Are you a:

- |  |   |
|--|---|
| <input type="checkbox"/> teacher         | <input type="checkbox"/> occupational therapist |
| <input type="checkbox"/> ECE teacher     | <input type="checkbox"/> speech pathologist     |
| <input type="checkbox"/> optician        | <input type="checkbox"/> physiotherapist        |
| <input type="checkbox"/> optometrist     | <input type="checkbox"/> public health nurse    |
| <input type="checkbox"/> ophthalmologist | <input type="checkbox"/> other nurse            |
| <input type="checkbox"/> parent          | <input type="checkbox"/> other specialist       |
| <input type="checkbox"/> Other:          |   |

---

Are you working with a child who is blind or visually impaired?

- Yes     No

If yes, how old? \_\_\_\_\_

If yes, does the child have other disabilities?

---



---



---

Please rate the video and manual:

- Extremely useful     Somewhat useful     Not useful

How do you expect to use this resource?

---



---



---



---



---



---

What other information/resources would you like to obtain, on early intervention with children who are blind or visually impaired?

---

---

---

If a 60-hour post-diploma course on early intervention with children who are blind or visually impaired was offered through distance education from a community college, would you enroll, if you qualified?

Yes     No

If yes, why?

---

---

---

If no, why not?

---

---

---

How did you hear about this video package?

CNIB workshop     CNIB website     professional

CNIB staff     parent     Internet www. \_\_\_\_\_

other \_\_\_\_\_

Thank you for taking the time to complete this questionnaire.

Please mail to:

Dr. Deborah Gold

National Manager, Program Development

The Canadian National Institute for the Blind

1929 Bayview Avenue, Toronto, Ontario, Canada

M4G 3E8