

C.H.A.N.G.E.S.



Peterborough & Area Down Syndrome Support Group

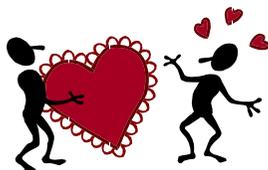
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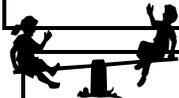
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"Wee Ups & Downs"

Sharing & Play Group for Parents & Preschoolers with Down Syndrome



The next Wee Ups & Downs group will be Feb. 18th, from 10 a.m. till noon at C.H.A.N.G.E.S.

The group was formed to respond to the needs of new parents of children with Down syndrome.

Facilitated through Peterborough County City Health Unit's Infant Toddler Development Program, the group aspires to provide an opportunity for parents of preschool children with Down syndrome to meet.

Focus specifically on issues related to infant and toddlers with Down syndrome.

Facilitate informal discussion on issues relevant to parents in the group.

Provide guest speakers on topics

identified by the group and to provide a private, child-friendly meeting space for infants and toddlers and their parents. For further information please call 749-6695.

Parent Support Group

The next meeting will be held Feb. 28th, 7:30 p.m. at C.H.A.N.G.E.S. (please use Charlotte Street entrance)



Volunteers are needed to organize and set up a craft day with a St. Patrick's day theme to make and design window displays for the office. A tentative craft date would be March 2, 2002. Please call Carollanne if you can assist with the planning, the organization and ideas.



Bingo Volunteers Needed

Bingo runners are needed:
 12:15 to 3:30 p.m.

Can you commit one to three Saturday afternoons every other month to help C.H.A.N.G.E.S.? Please call the office at

749-6695. Money raised will go toward new resources, activities and programs. Thanks!

Dates: March 9, 16, 23, April 20, 27, May 4, June 1, 8, 15

Mission Statement: "To support each other in our quest to normalize and enrich the lives of people with Down syndrome to ensure that they reach their fullest potential."

Sound Therapy: A Neurodevelopmental Approach to Speech and Language Problems

By: Kay Ness

Children with Down syndrome often have speech and language problems. Neurodevelopmentalists are trained to look at the steps for normal human development, from birth to the level of mature excellence. A developmental evaluation will look at underlying causes of problems. By addressing causes and by fixing the sources of problems, much progress can be made.

This is quite different from the normal therapeutic approach, which gives a child tools to cope with disabilities. A better approach is to find the cause of a problem and treat it at the source. The neurodevelopmental approach does this.

Several pieces are necessary for good speech and language. These include hearing and mouth tactility (input), the ability to hold pieces of information in short-term memory (auditory processing), the ability to recall things that have been learned (long-term memory), and lung capacity, articulation with good oral motor skills and the ability to speak in sentences (output). These pieces are put together as any child develops.

We will not go into all of these pieces in this article. But they must all be addressed to properly deal with causes of speech and language problems. This article will focus on the problem of distorted hearing, and describe a solution to that problem.

The Problem of Distorted Hearing

A newborn baby has to learn to hear, just like that baby has to learn to see and learn to creep, crawl and walk. Normal environment stimulation—listening to normal sounds and language—usually “wires” up the auditory system to the brain and the child puts together the pieces to develop normal language. If during this developmental process the ears are full of fluid, then this “wiring” takes place in a distorted fashion. Congestion, ear infections and chronic fluid in the ear are a major source of problems with devel-

oping good speech and language. A child must be able to hear well in order to develop good speech. This is not unique to children with Down syndrome. It is present in many, many children with a variety of disabilities.

In distorted hearing, a child may not be able to hear certain frequencies appropriately or may be too sensitive to certain frequencies and not sensitive to other frequencies. Certain sounds may be painful to the child. The brain has a very sophisticated feedback mechanism to shut out painful sounds so that they are not heard. Some children whose hearing tests very well on an audiogram still cannot shut out extraneous sounds to concentrate on the sound of interest. This is like trying to listen to three radio stations superimposed on one another. These children hear everything, but generally sounds are a roar to them. Hence, they essentially shut down to almost all sounds. For some, sounds are so threatening that they do not develop expressive language. Language problems in a number of learning disorders and delays (Autistic or Central Deficit Disorder, etc.) are often caused by distorted hearing.

Some children whose hearing tests “normal” on an audiogram have hearing that is so distorted, they do not develop good auditory processing and hence good speech. Auditory processing is the ability to hold pieces of auditory information in short term memory. The level of auditory processing will be reflected in the length of sentences that a child can use of the number of sequential steps a child can remember and follow when given directions. An audiogram does not test quality of hearing. Experience has shown that good auditory processing is a major component in developing social maturity and good reading skills.

Parents of children with Down syndrome should aggressively treat fluid in the ears.

A child cannot hear normally if fluid is present. This alone is enough to cause major developmental delays. Regular tympanograms and tubes, if necessary to keep the ears clear, are recommended. Families can purchase an Ear Check Monitor at most drug stores that performs this test. The cost is around \$100.

The Sense of Hearing

The sense of hearing is the first to develop in the uterus. At 135 days of gestation, a full sized cochlea has already developed in the baby. The first part of that hearing system to develop is the part that senses high frequencies. Thus, we can see that hearing is very primary to brain development, especially the part that hears high frequency sounds-which is often the first to be lost when there are hearing problems.

The dynamic range of hearing is broader than any other sensory input. We can hear over ten octaves. If we translated vision to the same scale, we can only see over one "octave". Another part of the auditory system is the vestibular system. It is responsible for balance and for knowing the baby's position in space. So we have a very sensitive system to detect sounds and provide spatial information to the brain.

Because hearing provides so much information such as language with tone, frequency, emotional content, spatial information (where things are located in space and the nature of the space in which we are listening) and because the vestibular system is also involved, treating hearing problems is critically important. It must be noted also that the auditory nerve is in close conjunction with other parts of the central nervous system and auditory system that functions well affects an individuals overall sense of well being.

Treating Hearing Problems

Identifying an area of distorted sensory input provides an opportunity to normalize it through appropriate stimulation. For instance, if a child has low muscle tone and low pain sensation, direct stimulation of the sensors involved in these areas can normalize this function. The same is true with vision. If a child has a problem with his eyes working together, then direct

stimulation with eye exercises can help the brain learn to control vision.

Treating distorted hearing is of primary importance. But, we cannot go in and directly stimulate the auditory system as we do touch and vision because the brain will simply block out sounds that it anticipates will be painful. We have to "trick" the brain to listen to sounds. With electronics, we can introduce a sound to the auditory system in a step function, without the brain having a chance to anticipate it. If, when this new sound is introduced, it is gentle and non-threatening, the system won't shut it out and we then have the opportunity then to provide stimulation to the auditory system that was previously blocked. This is the theory of sound therapy.

The German scientist and musician Ingo Steinbach developed SAMONAS Sound Therapy. From his background in the physics and music theory, he developed ways to record music that preserves the special spatial qualities of music and nature sounds that are usually lost in the recording process. Given the breakthroughs in recording and reproduction technology with the advent of CD's, these qualities can now be reproduced and made generally available. Given the importance of high frequencies to the brain, there was a need to enhance these high frequencies (the overtones) in a natural way. Though it is technically complex, essentially what is done with SAMONAS recordings is to boost the high frequencies of the recordings, lowering the base frequencies in a way that maintains the same energy for the whole base tone with its overtones. The result is beautiful music and nature sounds with enhanced high frequencies.

SAMONAS Sound Therapy is administered by a trained Samonas therapist. Once a child is evaluated, a program can often be designed to administer at home. It must be done gently and appropriately to the individual.

Great care has been taken to select or make recordings that meet different needs.

The music and the qualities of the sounds of that music must be matched to the needs of the individual and monitored closely. It is important that the sounds used for sound therapy are natural sounds. Unnatural or harsh sounds could have a negative effect. By gently exposing the hearing to beautiful, natural sounds and music, the auditory system can be opened up to hearing in a more appropriate way, without distortions and sensitivity.

Given the wonderful tool of SAMONAS Sound Therapy. A major component of speech and language is now accessible for treatment with great success. We have seen hypersensitivity to sounds reduced, tonal processing improve, auditory processing improve, even recovery of some hearing loss. With this tool and by addressing all of the other pieces of good speech and language, normal speech and language can become a reality for many more individuals.

Kay Ness is a certified neuro-developmental specialist who writes individual, home-based educational programs for parents to do with their children. She is a founding member of ICAN, an association of neuro-developmentalists.

This article came from the web site Einstein—Syndrome: Down Syndrome with a Positive Attitude.

www.tbinet.org/einstein-syndrome/start_here.htm

C.h.a.n.g.e.s. Tutoring Program

One-to one computer classes can complement regular school classes, providing extra practice in those skill areas which need improvement. The lessons may include practice with reading math, logic, mapping or money skills. These classes may also explore areas of personal interest for students, outside the regular school curriculum, such as learning to type or exploring the internet.

There are also many educational programs at all levels to reinforce basic literacy and math skills in fun and interesting ways. Students may complete puzzles, games, crafts, or other activities to promote learning and life skills as well. A personalized program will be designed for each student in consultation with the student, his/her parents, and the computer teacher.

The C.H.A.N.G.E.S. tutoring program has something to offer all of its participants. Students have access to the latest computer equipment and programs. Being able to use a computer is a valuable skill for anyone. From playing games, to completing reports, research assignments, to sending e-mail, everyone can find a use for a computer.

If you are interested in participating in this program please contact the office and ask for Tammy at 705-749-6695.

Community Respite

Campbellford & District Community Respite located 124 Church St. Warkworth, Ont. Children and adults with special needs living in the counties of: Haliburton, Victoria, Peterborough and Northumberland.

The house is a fully accessible bungalow with a countryside view. It has complete wheelchair access with lifts, tubs/showers, central air and full fire protection.

This form of respite provides parents and caregivers with an alternative option for an opportunity to renew themselves.

To provide people with special needs an opportunity for a holiday away from their families.

When Children/Adults can stay?

The house will be available to children at least 3 weekends per month with adults 1 weekend per month.

All respite visits should be booked at least 30 days in advance. To find out more information about Campbellford Community Respite please call Campbellford & District Association for Community Living at 705-653-1821 ext. 40 and leave a detailed message.

Victory County Association for Community Living also provides a respite program. For more information please call Doris George Respite Coordinator at 705-328-0464.

Thanks!

With out the kind donations C.H.A.N.G.E.S. would not be able to continue the work we do!

Francis & Colombe Halmmond
 Lakefield Lioness Club
 Package Plus
 Avery Brooks
 Scott & Amanda Carson

Volunteers/Helpers

Bingo Volunteers

Paul Guilfoyle, Jamie Jackson, Brenda Mosher, Jason O'Brien, Terry Porter, Nora Reynolds, Tammy Ellis, Carolanne Nadeau, Cindy MacKenzie & Rachel Adamson,

Office Volunteer

Cindy MacKenzie

Seeking living accommodation for a 41- year old woman with Down syndrome and obsessive-compulsive disorder. Requirements: non-smoking environment, own room, bright and sunny with a family atmosphere, close to bus route, vehicle, assist with meals, laundry, personal care, and med's.

If you know of such accommodations please contact Carolanne at 749-6695.

Welcome New Members

Allyson, Tony & Brianna DeNoble, Bev, Rob Sabattis, daughters Robyn, Alana, Tara, Jen & Sharon, Carolyn & Andrew Allen, Marie and Lynn Cobham, Graeme Ross, Heather and Dean Morgan, Ruth Fitzgerald

Membership/Donations

C.H.A.N.G.E.S., Peterborough & Area Down Syndrome Support Group Membership Form

? Yes, I would like a membership with C.H.A.N.G.E.S., I have enclosed my membership fee of \$15.00

? Yes, I would like to subscribe only to the newsletter, I have enclosed \$10.00.

? Yes, I would like to make a donation to help keep these programs alive and support future initiatives for children, youth, and adults with Down syndrome \$_____ Donation.

Charitable Registration # 124703737RR0001
 Receipts available for donations of \$10.00 or more.

Name: _____

Name of child/youth/adult with Down syndrome: _____

Address: _____

City: _____ Prov. _____

Postal Code: _____ Telephone: _____

E-mail: _____

Please detach and mail with cheque, payable to C.H.A.N.G.E.S., to 360 George St. N. Unit # 24 Peterborough, Ont. K9H 7E7

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