The Journey Back

– RECEIVING CI AS AN ADULT

Statped
HLF Hørselshemmedes Landsforbund
NOVEMBERFILM
ExtraStiftelsen Helse og Rehabilitering

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ExtraStiftelsen
Helse og Rehabilitering

A big thank you to all who have made the completion of this project possible.

PREFACE

«The Journey Back» was made with the help of adults who were about to become CI recipients or who had cochlea implants (CI), and this is about their experiences. CI gives many people new opportunities, but also presents them with new challenges.

The DVD and brochure are meant to add to the body of knowledge about what it entails to be a CI recipient and live with CI. We hope that this material will be seen, read and discussed by those who are waiting for their CI operation, those who have CI, their families and friends, workmates, specialists in the field and others. Despite the focus on CI, we believe that “The Journey Back” will also be of great value to all who have a hearing-impaired family member or acquaintance. Through the participants’ openhearted accounts, we have tried to highlight subjects that can be difficult and painful to talk about. One of our central goals has been to show that there is a huge variation in results, life styles and personal preferences and that they demand different, but equivalent, solutions. When we meet each other with respect and understanding, quality of life is enhanced for all who are involved.

Best wishes

Anne K Grønsund

Anne Kristine Grønsund
Project Leader

«There are so many dreams.»

HERE YOU WILL FIND INFORMATION ABOUT RECEIVING AND LIVING WITH A COCHLEA IMPLANT

«The Journey Back» to everyday life

The DVD in your hands focuses on hearing and the absence of hearing, sound and the absence of sound, meaningful sound and meaningless sound. It is about adults who, at some point in their lives, experience that their hearing is not functioning as it should. It is about how they experience their hearing loss and which choices they make to try and make the journey back to everyday life.

The question of what we use our hearing for, is answered by saying, «just about everything». In today's world, we are surrounded by different forms of sound most of the day. Many of these sounds provide us with some form of information. Sound can be perceived as meaningless noise, but noise can often contain some kind of information.

However, maybe it is only when normal hearing is lost, after one has based one's interaction with others on this sense, that we realize how important it is. To lose the sense of hearing leads to enormous practical consequences and challenges connected to communication and interaction; but at a deeper level, for many, it is about: «Who am I without my hearing?»

As a result of this, there are many who experience grief, frustration, despair and hopelessness. Different people tackle the loss of hearing in different ways.
The DVD is about «The Journey Back» to everyday life, and the opportunities and limitations there are in getting and living with a cochlea implant (CI) in adult life. We meet people who have their own personal stories connected to life in general and to their hearing loss. They share their thoughts and expectations as to what CI can do for them and their situation, but things do not always go as planned.

**«A new life,
new opportunities.»**

One of the DVD's important goals is to focus on the people surrounding the hearing-impaired person. What are their attitudes to and expectations of CI? Their knowledge of rehabilitation after the CI-operation is of great importance for how the CI recipient tackles his or her own expectations. This means that the family, friends, the workplace and other social settings of importance for the hearing-impaired person, receive good, detailed information about what it means to get and live with CI. This information is vital if they are to provide support for the CI user. They have to understand it is not about getting back normal hearing, and that the CI user has to painstakingly and systematically work at hearing anew through auditory or listening training. During this process all CI users need good supporters: someone who takes an active role in the process by translating the new sound experiences. Someone who gives encouragement without demanding too much. Someone who sees when the CI user is exhausted. Someone who energizes and motivates the CI user when they are worn out. Someone who understands the need for and allows time for an extra rest. Someone who shows understanding when progress does not go as planned. Someone who is there if it turns out that the "Journey Back" to everyday life does not necessarily involve hearing.

What is a cochlea implant (CI)?

A CI is a complex, advanced electronic device that can provide a sense of sound to those with a severe to profound hearing loss. It is also called an advanced hearing aid. It is made up of an external and internal part. The external part worn behind the ear consists of a microphone, a sound processor, a battery and a transmitter. In addition, it is attached to the head by a magnet. This part can be taken off when necessary. The role of the external part is to pick up sound from the environment and send the sound signals to an internal receiver that is operated into the skull. The receiver transmits the sound signals to a silicon sonde with electrodes that is surgically inserted in the cochlea. Electrical impulses from the electrodes stimulate the auditory nerve, which sends the impulses to the brain. It is when the impulses reach the brain that they can be perceived as sound. The electrodes that are operated into the cochlea have fewer frequencies than a normal ear and this influences the quality of sound; therefore CI does not result in normal hearing.

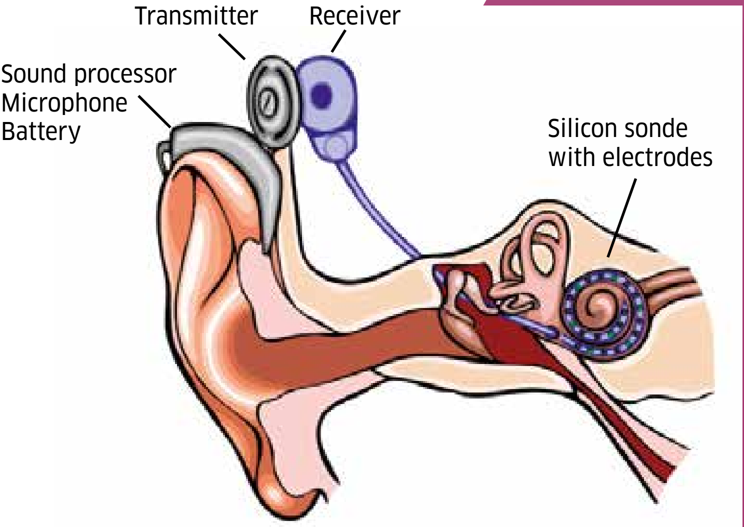
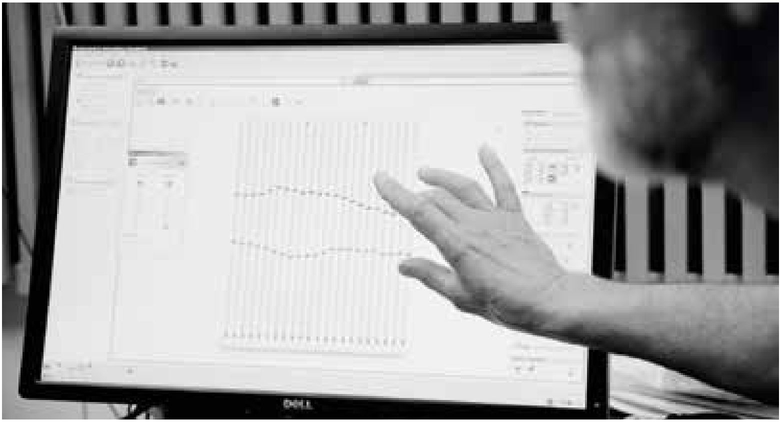


ILLUSTRATION: SANSETAP.NO



The success of CI is often determined by systematic training in listening. Advances in technology mean that CI is constantly being improved. Earlier, adults received one CI but now it is not uncommon to have two.

It is important to say that two CIs do not give double the amount of hearing. The benefit of having two is that they give stereo sound, something that gives better perception in noisy environments. Also, they help give directional hearing which means it is easier to determine where sound is coming from. Two CIs do not necessarily give better perception of speech. However, experience shows that CI recipients with two CIs use less concentration and energy to perceive speech than those with one CI; which means less stress. Being able to receive sound from both sides, means there is less need to turn the head to find the source of a sound, which in turn reduces shoulder and neck problems for CI recipients.

YOU CAN FIND MORE INFORMATION HERE:

Sansetap: http://www.sansetap.no/smabarn-horsel/tilrettelegging/horeapparater-ci/ci/
Medel: http://www.medel.com/no/cochlear-ilants/
Medisan: http://www.medisan.no/produkter/cochleaimplantat-ci/nucleus-ci24re-cochleaimplantat/Cochlea

Who are the adults who chose CI?

The first CI operations in Norway were carried out in the middle of the 1980s. Operations were carried out mainly on adults who had had normal hearing for many years, but who, for different reasons, had lost their hearing. New technology and many years' experience with CI operations has led to new opinions about who can benefit from CI. Opinions about both age and degree of hearing loss have changed. Amongst other things, this means that today a much more varied group of adults can be eligible for CI.

«I can hear rain drops falling.»

Today we can divide the group into three depending on the main features of their medical history:

- Those who have had normal hearing for many years and who have become deaf or severely hard-of-hearing over a period of time (progressive hearing loss), or who have lost their hearing overnight. In this group there are some who use sign language or Sign Supported Norwegian (NMT): usually those who have lost their hearing gradually over time.
- Those who are born with a small or moderate hearing loss and who gradually become deaf or severely hard-of-hearing. Many in this group use sign language or NMT.
- Those who are born deaf or severely hard-of-hearing and who have used sign language most of their lives.

A person's medical history tells something about a person's experience of sound, the degree of sound stimulation they have had and how long they have been without sound stimulation via their hearing. These factors often affect the outcome. But there are many other factors that play a role and this means that there is no absolute truths or guarantees.

In addition, CI has been tried out by people who are plagued by tinnitus (ringing in the ears), and those with a unilateral severe hearing loss. In February 2015 there were approximately 1030 adults (persons over 18) who have one or two CIs.

YOU CAN FIND MORE INFORMATION HERE:

Sansetap, voksne med hørselstap: http://www.sansetap.no/voksne-horsel/

Which assessments are done to decide who is eligible for CI?

The following hospitals offer CI operations to adults:

- Oslo Universitetssykehus, Helse Sør-Øst
- St. Olavs Hospital, Helse Midt
- Haukeland Universitetssykehus, Helse Vest

One can choose which hospital one wishes to attend for a CI operation. All the hospitals offering CI operations have an interdisciplinary team comprising of doctors, audio-physicist, audiologist and audio-speech therapist. The CI team carry out a complete study of the person applying for CI. This includes hearing tests, imaging diagnosis (CT and MRI), a general medical examination and medical history (self-report of his/her medical history) as well as other hearing-related examinations. The individual's history of hearing loss and other central parts of their life which are affected by the loss of hearing are an important part of the examination. This features:

- the cause and development of the hearing loss
- the use of hearing aids
- the use of visual communication
- challenges in the workplace and social life
- own expectations to living with CI

Motivation for carrying out listening

training is an important factor in this holistic assessment.
If the examination and assessment results in offering CI to a patient, information will be given at the same time about what the individual realistically can expect. It is then up to the patient to decide, based on this information, whether or not to have the operation. The patient is given the opportunity to think carefully before coming to such an important decision. During this process it is good to include a family member who can give support and join in discussions when the choice is made. Involving others in this process can also help to create understanding of the consequences of opting for CI. If one chooses CI, information is given about courses one can attend, prior to the operation. The courses prepare the patient for the processes that follow the operation. Information will also be given about courses offered to CI users and their families, after the CI is activated. An important aspect of taking part in courses is meeting others in the same situation. Which courses are offered can vary across the country.

YOU CAN FIND MORE INFORMATION HERE:

Oslo Universitetssykehus: http://www.oslo-universitetssykehus.no/omoss_/avdelinger_/ci-teamet_/Sider/om-ci-teamet.aspx
St. Olavs Hospital: http://www.stolav.no/ftp/stolav/eqspublic/pasientforlop/docs/doc_23745/index.html
Haukeland Universitetssykehus: http://www.helse-bergen.no/no/OmOss/Avdelinger/oyre-nase-halsavdelinga/oyre-og-horsel/Sider/cocleaimplantat.aspx
HLF Briskeby kompetansesenter as (kurs): http://hlfbriskeby.no/kurs/
LMS-Lærings – og mestringssenteret Helse Bergen (kurs):
http://www.helse-bergen.no/no/OmOss/Avdelinger/lms/Sider/default.aspx
Statped: http://www.statped.no/Stottemeny/Om-Statped
Fag--og-tjenestetilbud1/

Do you just have to turn on the sound?

Four to six weeks after the CI operation, when the operation scars are healed, it is time to activate the CI device. This means programming and activating the external part of the CI (the sound processor). It is then ready to try out and adjust the sound. This is a painstaking process which can be both exciting and demanding, and for some it can be frustrating too. Many feelings, thoughts and questions can arise in this situation. Activating the CI is done at the audiology department at the hospital and usually takes between two to four days. While the sound is being adjusted, it is necessary for the CI user to move around inside and outside the hospital to discover sounds, experience sound, interpret sound and find out where sound is coming from. This includes speech sounds and environmental sounds.

It is important that family members

take part in this process, partly to gain insight in what is going on and partly to help when sounds need interpreting and sources identified. Not least, it is important for someone to be there and support the new CI user.

During this period it will be necessary to adjust the sound processor several times. When the CI user goes home, he or she usually has several programs to try our before the next adjustment is made after three months. If it is necessary to make extra adjustments before the next appointment, it is possible to contact the audiology department.

The first period with sound is a very subjective experience. Some find that the first sounds are meaningless and describe them as noise or compare them to penny whistle notes or sheep bells. Others, relatively quickly can perceive speech in good listening conditions. Either way, «it is now it all begins.”

What rights do adult CI users have to listening training?

Adults who have CI have the right to education (auditory/ listening training and speech therapy) according to the Education Act § 4A-2 (Right to special education within primary/ secondary school). The Local Education Authority has a responsibility to provide this education. It can be given to CI users by a private audiologist / speech therapist according to the Law on National Insurance § 5-10 (Treatment for language and speech defects). It is the hospital / doctor who makes arrangements so that a training program is provided after the CI operation. Basically, it is

> **«I have more courage now when communicating with one or two.»**

usual to have 25 – 30 hours of auditory or listening training. In cases where the CI user has had little experience with speech, they are also given speech therapy. If there is a need for more training, it is possible to apply for more, both as a continuation of the present training or to come back for more after a pause.

Not all Local Education Authorities have the competence to be able to provide listening training (and speech therapy). They can then apply for guidance to Statped. Statped can give advice and guidance to teachers and give them the tools to use in training sessions. Statped arranges courses for teachers who work with adult CI users. These courses are also open to private audiologists /speech therapists. On the internet there are some good programs for listening training. They can be used by teachers and for individual training. It is important for the CI user to get started quickly with listening training, preferable already the week after the CI has been activated.

«Most days are ordinary weekdays, and the small conversations are easier than before.»

YOU CAN FIND MORE INFORMATION HERE:

Opplæringsloven: https://lovdata.no/dokument/NL/lov/1998-07-17-61/KAPITTEL_5#KAPITTEL_5

Lov om folketrygd: https://lovdata.no/dokument/NL/lov/1997-02-28-19/KAPITTEL_5-1#§5-4

NAV: https://www.nav.no/rettskildene/Rundskriv/147613.cms

Statped: http://www.statped.no/Stottemeny/Om-Statped/Fag--og-tjenestetilbud1/Hvordan-soke-om-tjenester-fra-Statped-/

What are the aims of listening training?

For many CI users, starting a course in auditory or listening training is the start of a long journey into the world of sound. It is a journey where the goal is to gain maximum benefit from the CI. Those who have chosen to take this journey as an adult can find energy and motivation in the hope that they will have a less frustrating and tiring everyday life. They dream of family life where hearing can help to include them more in their own family, amongst their friends and at work. For some it is about being able to hear and enjoy music again, listen to the radio and TV and to talk on the telephone, to experience nature, not only visually, but also through sound. Goals for sign language users, who are already included in a sign language network, can be different. They have practical goals and a wish to be able to communicate both visually and through speech. This gives them the choice of taking part in different social settings in society. The choices made are based on the individual's wishes and needs. It is about individual choices because no two are ever alike.

If the individual CI user is to have a chance at profiting fully from their CI, systematic listening training is crucial for just about everyone. This includes training with a teacher, with family members and not least training alone. To experience a feeling of mastery in connection with listening is important to maintain motivation. Aims and progression must therefore be adjusted to the individual, their situation and other factors that can be of importance.

Experience shows that many CI users will be able to perceive all that is said in quiet surroundings when just one person is talking. When there is background noise, all CI users, as with hearing-aid users, will have greater problems than people with normal hearing at understanding what is being said. The amount of background noise a CI user can stand varies from person to person. Background noise is different for a CI user than for someone with normal hearing. For many CI users the term foreground noise would be more fitting: CI users experience that background noise covers up what they want to hear, it comes into the foreground, stopping them from hearing what is being said.

Some CI users need to see the face of the person they are talking to so that they can gain extra support in understanding by speech-reading. Others benefit from the use of signs (NMT) that visualize what is being said, or switch between sign language and speech. What is appropriate can vary according to the situation.

There are also some who use CI to be able to perceive warning signals from their surroundings, or to avoid tinnitus. It is all about individual's medical history, abilities, expectations and goals. In the end it means that «a successful CI operation» is a relative concept.

YOU CAN FIND MORE INFORMATION HERE:

CI hva du hører: http://www.erher.no/voksenopplaering/ci_hva_du_hoerer/

Lyttetrening etter CI: http://www.acm.no/lyttetrening/

Logopedisk senter, Trondheim kommune: https://www.trondheim.kommune.no/logopedisk/

Is sick leave necessary in the period after the CI is activated?

Everyone who receives CI will automatically be given sick leave by their hospital doctor for two weeks after the operation. The need for extended sick leave will be assessed by a person's local doctor. Many adult CI recipients exert a lot of energy during auditory training, and need to have sick leave for a period after the CI is activated. This is very individual. Some use their work situation as part of their listening training; getting to know sounds in the workplace and communicating with workmates. The need for sick leave depends on the benefit the individual CI user has from sound, what kind of job he/she has and their general family situation. Again, the individual makes their own assessments and choices.

Since there are so few CI recipients, local doctors usually do not have experience of or knowledge about rehabilitation after a CI operation. Therefore, one of the Norwegian Health Authorities (Helse Midt) has developed a document to brief local doctors and ensure that they understand the new CI user's situation and that most will need sick leave for a while after the CI has been activated.

> **«Being able to hear alarm signals, makes me feel safer.»**

Do CI users need additional technical aids?

CI users can use the same technical aids as others do that have a hearing loss. Depending on an individual assessment and trials, one can apply to borrow appropriate technical aids. There are many aids to choose from that can increase the benefits of CI.

CI users also have the right to use sign language interpreters, NMT interpreting or sign supported communication (TSS). They have also the right to use real time transcription (CART) interpreting. To use a sign language interpreter presupposes that the CI recipient knows Norwegian sign language. Using an interpreter can open up new opportunities when listening alone is not enough. It can also save the CI user from having to use too much energy to understanding what is being said. It is important to try out different things, find out what works best and to feel confident when using an interpreter. The decision as to whether there is need for an interpreter should be made in principle by the main user: in this case the CI user. The need for an interpreter has to be documented by a medical certificate. The service that organizes interpreting (Tolketjenesten) is part of Social Services (NAV).

> **«If there isn't too much background noise, I dare talk to people, join in the conversation.»**

YOU CAN FIND MORE INFORMATION HERE:

NAV, tekniske hjelpemidler: https://www.nav.no/no/Person/Hjelpemidler/Hva+har+du+vansker+med/H%C3%B8rsel.357453.cms

NAV, tolk: https://www.nav.no/no/Person/Hjelpemidler/Tjenester+og+produkter/Tolketjenesten/Bestille+tolk

What is the point of joining a network of CI users?

The experience of receiving CI can be like walking into an unknown land, characterized by insecurity and many unanswered questions. Therefore, it can be reassuring to get to know others in the same situation. As there are few CI users, it is unlikely that one can meet other CI recipients in one's local neighbourhood. Courses for CI users can be of great benefit, both before the operation and afterwards when one actually is living with CI. At the courses one meets others who know from personal experience what it is like to lose one's hearing and become a CI user. Even though CI recipients as varied as all other kinds of people, they do have a common experience, that of becoming a CI user. It can remove doubts or fears to meet others in the same situation. One does not have to explain or maybe defend why things are as they are. This can give added strength to face the world and result in a better rehabilitation for each individual. Maybe one will be extra lucky and meet someone who one has more in common with than just CI, and new friendships can evolve. It is all a question of quality of life for each individual. On social media there are many groups that focus on hearing loss. There are also groups where the theme is CI. These are

groups where CI users can give and receive valuable information in an efficient and simple way. Today, there are among others, two active Facebook groups: «Hørselshemmet-hva så?» and «CI-gruppa». The groups are closed, but one can join by applying for membership. One of the members of «CI-gruppa» expressed the advantage of joining the group thus: «I have been given answers and learnt more here than at the hospital. There are other CI users here and they know about the problems we face and know the solutions too.
It is almost like an enormous, knowledgeable data base! »

«You are vulnerable about the things you can't do. Take time to accept it.»

YOU CAN FIND MORE INFORMATION HERE:

Hørselshemmedes landsforbund: http://www.hlf.no/
Norges Døveforbund: http://www.deafnet.no/
Ål folkehøgskole og kurssenter for døve: http://www.al.fhs.no/
HLF Briskeby kompetansesenter as: http://hlfbriskeby.no/

How do you look after body and soul during a demanding phase in life?

To gain the maximum benefit from auditory or listening training, it is important to take good care of yourself and do things that motivate you and that give you energy. Activities that make you relax your shoulders and breathe with your stomach can be things like:

- outside physical activity or at a training centre
- relaxation techniques like yoga or mindfulness
- psychomotor training
- physiotherapeutic treatment

Losing most or all of their hearing is for many an experience that becomes a huge burden. Many try to compensate for their hearing loss by means of different strategies. This is often a very demanding project. Self-esteem can be seriously compromised, and over time becomes part of one's being. These are experiences shared by many CI users, and it can therefore be necessary to have professional help to tackle the situation and find good solutions that contribute to a good quality of life and sense of well-being. The National Centre for Hearing and Psychological Health («Nasjonalt senter for hørsel og psykisk helse» (NSHP)) is an outpatient special health department serving the whole country. It offers services to the hearing impaired in just such situations. If rehabilitation after the CI operation does not go as expected, the need can be even greater for help to move on in life in a positive fashion.

YOU CAN FIND MORE INFORMATION HERE:

Nasjonalt senter for hørsel og psykisk helse, Oslo Universitetssykehuset:

http://www.oslo-universitetssykehus.no/omoss_/avdelinger_/
horsel-og-psykisk-helse-voksne_

Information about the DVD

The DVD has to parts: The documentary film «The Journey Back» and extra material consisting of discussions and conversations.

«The Journey Back»

Who are the main characters in the documentary film?

In the documentary film we meet primarily Grethe and Ulf. In an open and honest way they share their experiences and thoughts. They give us insight into which opportunities, but also which challenges and limitations, lie in the wake of getting and living with CI in adult life. Many factors play a role in the actual advantages gained from CI. Grethe and Ulf have different starting points, and they also have different practical outcomes in everyday life. But both Grethe and Ulf have in common a genuine wish to «get their lives back. » Their goals are to be included in their families, to function as well as possible in everyday life, and experience subjectively a good quality of life. The film shows us that the journey back is based on individual choices.

«I could talk to people at my work's Christmas party. I hadn't been there for several years. »

Grethe Hofstad, born 1957

Grethe is married to Lars Hofstad and they have two grown-up children and a grandchild. At the age of 40, Grethe noticed that her hearing had changed, and she was diagnosed with a hearing loss in both ears. Grethe was given hearing aids that helped her. In the years that followed, her hearing gradually got worse in both ears, but in 2012 hearing in her left ear deteriorated substantially. Hearing aids were no longer of any use in Grethe's left ear, and in 2013 she received a CI on the left side.

The documentary film shows Grethe and her family before, during and after the CI operation. After the operation Grethe experience difficulties combining CI on her left side with the hearing aid on her right. At the same time she lost more and more hearing in her right ear, and she was plagued with tinnitus. After a time she no longer had any benefit from using the hearing aid, and in November 2014 she had a CI operation on her right ear.

The cause of Grethe's hearing loss has never been determined. Heredity can be one factor, as her father used hearing aids when he was 70. Grethe had frequent middle ear infections (otitis) as a child. This can also have contributed to a hearing loss, but not to deafness.men ikke til døvhet.

Ulf Nagel, born 1972
Ulf is married to Mette Jæger and they have three children aged between 3 and 14.

When Ulf was one year old he had scarlet fever which resulted in a hearing loss in both ears. He benefited from using hearing aids until 2000, but during the next five years his hearing seriously deteriorated. Hearing aids were no longer satisfactory and for the first time, in 2006, Ulf thought that CI could be suitable. In January 2007 Ulf was assessed, and put on the waiting list for a CI operation. While he waited, he became over sensitive for everyday sounds (hyperacusis), and suffered from tinnitus and migraine. In addition to his hearing loss, this was very challenging. In July 2007 Ulf received CI on his right side and in January 2012, on his left.
In the documentary film we meet Ulf and his family after his CI operations in both ears. Ulf and his family had expectations that CI would have

a positive effect on his hearing, and reduce his hyperacusis, tinnitus and migraines. Their expectations were not met, and we see how demanding the choices were to make for Ulf and his family in an effort to try and improve his life and the lives of the whole family.

Tommy Ernst Rise, født 1948
Tommy was born deaf and uses sign language. The cause of his deafness is not known. He started to use hearing aids before he reached school age, even though he himself thinks that they did not help. In 1995 Tommy started to suffer from tinnitus. He was seriously affected by this and decided therefore to try and see if CI could help reduce his tinnitus. In 2004 he received a CI on his right side and since then, has not had tinnitus. We meet Tommy in conversation with Ulf at Ål College («Ål folkehøgskole og kurssenter for døve») where he works.

Who do we meet in the conversations in the extra material, and what themes do they discuss?

In the extra material you will find several conversations. We wanted to show several more variations, and more breadth and depth than could be shown naturally in the documentary film.

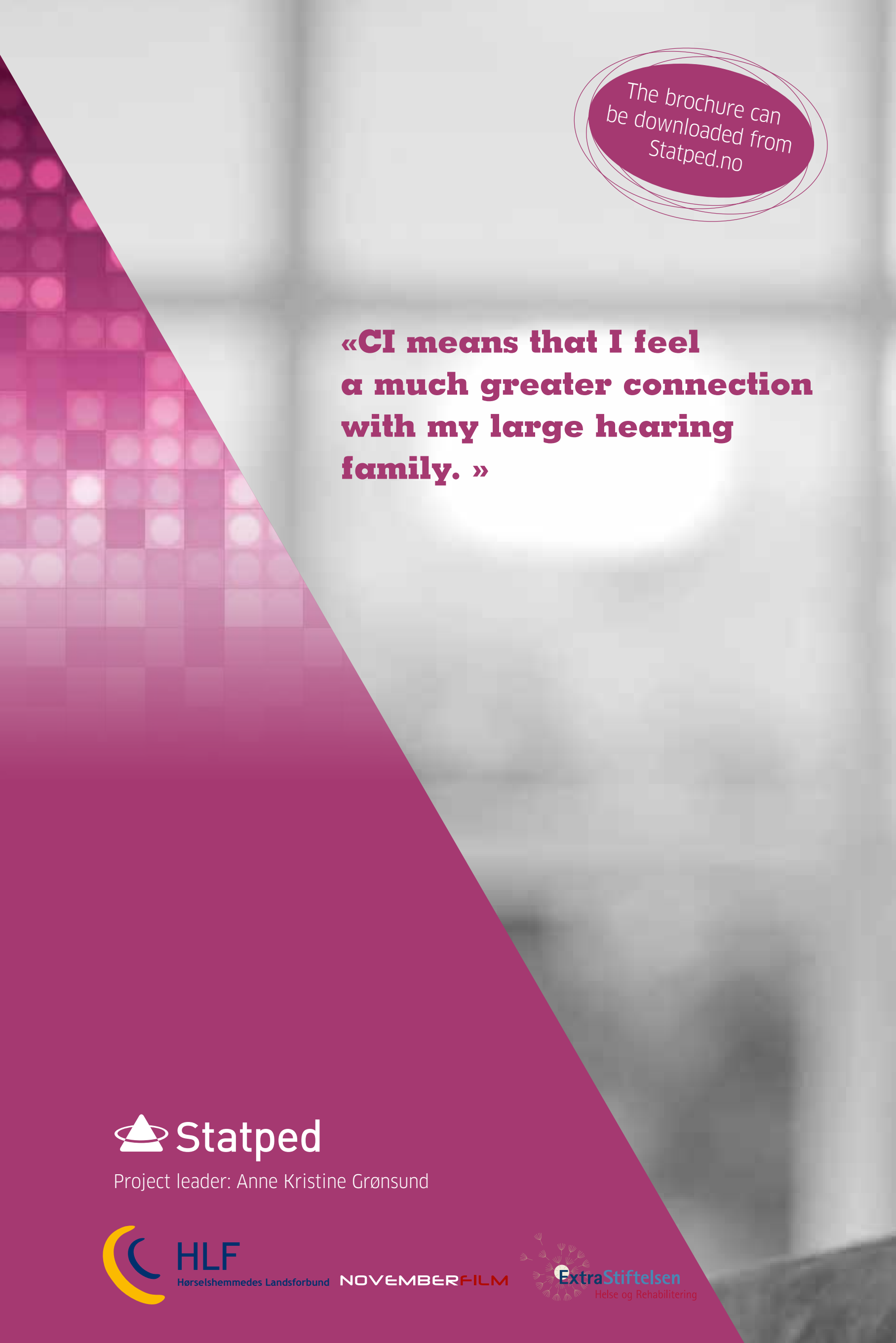
Psychologist Katharine Cecilia Williams, *Nasjonalt senter for hørsel og psykisk helse, Oslo Universitetssykehus,* leads a discussion that focuses on living with a hearing loss.

Audiopedagog Ingrid M. Mathisen, *Audiopedagogene*, leads a discussion that focuses on experiences in connection with the activation of the CI and auditory or listening training.

Grethe Hofstad, is presented in connection with the documentary film. We meet Grethe in the group discussions with the psychologist and audiopedagog.

Lina Therese Finstad, born 1974
Lina had meningitis when she was 18 months old and as a result had a moderate hearing loss in both ears. She started to use hearing aids regularly when she was 8 years old. In 1997 Line suddenly became deaf in her left ear, and from 2004 to 2005 her hearing gradually got worse in her right ear. The hearing aids she had used previously were no longer of any use. Lina had to base her communication on speech reading. In August 2009 she took a CI operation on her left side and in 2010 on her right side.
We meet Lina in conversation with her friend Turid Stalsberg, and in the discussion group with the psychologist and audiopedagog.

Anne Kristine Grønsund, born 1971
When Anne Kristine was born, lack of oxygen (hypoxia) resulted in a moderate to severe hearing loss. Her hearing loss was the same in both ears and stable. Several times she tried to get used to using hearing aids, but the pain combined with the distortion of sound (recruitment), made it impossible. When Anne Kristine was 37 her hearing deteriorated for an unknown reason, and she became deaf. As an adult she has chosen to learn sign language, and communicates with her surroundings by switching between speech and sign language as well as NMT. In 2009 Anne Kristine took her first CI operation and in 2011, her second. We meet Anne Kristine in conversation with her husband, Trond Grønsund, and in the group discussions with the psychologist and audiopedagog.



«CI means that I feel a much greater connection with my large hearing family. »

Statped

Project leader: Anne Kristine Grønsund

HLF
Hørselshemmedes Landsforbund

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