

# *Video Script on Prevention of Hearing Loss*

*Reg. NO.M9719*

Independent Project submitted as part fulfilment for the first  
year M.Sc, (Speech and Hearing), Mysore.

All India Institute of Speech and Hearing

Mysore 570006

1998

Uppapa  
**You have been an  
eternal source of\*  
inspiration now and  
always  
&  
Sa-ad**

**. CERTIFICATE**

This is to certify that this Independent Project entitled  
VIDEO SCRIPT ON  
*PREVENTION OP HEARING LOSS*  
is the bonafide work in part fulfilment for the degree of Master of  
Science (Speech, and Hearing) of the student with  
Register No.M9719

Mysore

May, 1998

  
**Dr. (Miss) S. Nikam**

Director  
All India Institute of Speech and Hearing  
Mysore 570 006

## **CERTIFICATE**

This is to certify that this Independent Project entitled *VIDEO SCRIPT ON PREVENTION OF HEARING LOSS* has been prepared under my supervision and guidance.

Mysore

May, 1998

  
**Dr. K. Rajalakshmi**

Lecturer in Audiology  
All India Institute of Speech and Hearing  
Mysore 570 006.

## **DECLARATION**

**This Independent Project entitled *VIDEO SCRIPT ON Precention of hearing loss* is the result of my own study under the guidance of Dr. Rajalakshmi, Lecturer inAudiology, Department ofAudiology, All India Institute of Speech and Hearing, Mysore and has not been submitted earlier at any University for any other diploma or degree.**

**Mysore**

**May, 1998**

**Reg. NO.M9719**

## ACKNOWLEDGEMENT

Words are limited and finite to express my thanks to my guide **Dr.(Mrs)K.Rajalakshmi**, Lecturer in Audiology, All India Institute of Speech and Hearing, Mysore, for her sterling guidance and motivation at every phase of this project - I owe you more than what I can say.

I extend my gratitude to **Dr.(Miss)S.Nikam**, Director, All India Institute of Speech and Hearing, Mysore for permitting me to take up this project.

***Mummy and Daddy.*** The two people who mean the most to me. Thanks for everything - for loving, listening, caring, understanding, supporting and reassuring. All that I am or hope to be,. I owe to you.

***Shirin, Seema, Riaz and Jaleel*** - for their encouragement and silent players. I want to say thanks for all the little things you do to warm my heart.

***Zain, Simrart and Shihab*** - you kids make this world a more beautiful place to live in.

To both my *gradma 's and grandfather* - you all are remembered by me in all moments of my life.

***Anusha, Sarah and Gauri*** - In this busy world, not many people listen, you always did and that's what makes you so special!.

***Mili and Shrabanthi*** - Thanks for just being there.

***Renu and Shivani*** - one of the most wonderful things in god's world is his gift of friends like you.

*Hia and Ganeshanna* for taking time in your tight schedule, to help me to complete my independent project.

My sincere thanks to *all my teachers* for imparting knowledge on me and building my basics in speech and hearing science and helping me grow.

*Rajalakshmi* akka, you are a perfectionist. Thanks for putting my work into this beautiful format.

All my *classmates* - Thanks a ton for accepting the way I am.

## TABLE OF CONTENTS

	Page No.
Part I Introduction	1 -3
Part II Script on Prevention of Hearing Loss	4-37
Part 2.1 - Prenatal Prevention	4
Part 2.2 - Perinatal Prevention	11
Part 2.3 - Postnatal Prevention	14
Part 2.4 - Prevention of other common causes of hearing loss.	15
Part 2.5 - Recent developments	18
Part 2.6 Interviews with ears.	21



## INTRODUCTION

Narrator : Our ears have been hearing for us almost all our lives. But how often have we stopped to hear our ears speak to us? Yes ! our ears have stories of their own to tell. Shall we lend our ears, our ears today? They have an important message for each of us.

*(This part of the video could show an animated ear, speaking about itself. Ear I is a punkish, freakish looking ear while Ear II could be shown as a studious looking ear, wearing glasses for eg.)*

### **Ear I:**

I am big, I am strong.

But hey ! don't get me wrong !  
You need me every single day.  
Without me you've a big price to pay  
so listen hard and listen well.  
And keep in mind all that we tell.

**Ear II :** *(Could be shown teaching the anatomy of the ear with diagram drawn on the black board).*

"There is much more to us than meets the eye. I'll take you now to meet the rest of us - we are the three-in-one-the outer ear, the middle ear and the inner ear.

**OUTER EAR :** *(Pointing to the pinna)*

"There's no way you could have missed seeing her. She hold's your earrings in place for vou.

*(Pointing to the external auditory canal)*

He is like a pipeline for the sound waves on their way to the middle ear. He is the guy who gets hurt every time you push a stick or hairpin down your ear.

He can take two slightly different shapes. In us adults, he is shaped like the alphabet 'S' while in little babies, toddlers and young children, he runs almost completely straight. Look at this (pointing along the straight auditory canal of a young child). Can you see how your little child is more prone to infections from outside, while we old folks remain relatively safe? Thanks to our 'S' shaped canal.

**MIDDLE EAR :** *(Pointing to the middle ear)*

This part of me is all closed up like a box and one of its Avail is the tympanic membrane. This part is also called the ear drum. This little curtain shakes and shudders as sound waves hit against it. This in turn shakes three tiny bones (the three tiniest in the body!!) that are linked up like a chain, connecting the middle ear to the inner ear.

This box with the chain of three tiny bones does another important job, that you wouldn't have ever guessed. They make the sound you hear louder (sounds like a microphone's job doesn't It?). So that the next receiver the inner ear, will hear the sound loud and clear.

**INNER EAR :** *{Pointing to the cochlea}*

If you think a snail looks good, you will love the way he looks too - all coiled up - **exactly like a snail**. It contains here, tiny hair like structures that have a very special function - they receive

the vibrations from the middle ear and convert them into tiny bursts of electrical discharges. This electric message is now ready to be understood by the brain.

*(This entire conversation process can be picturised as follows: The 'box' like middle ear with its 'chain' of ossicles leading to the snail shaped cochlea. Sound waves from a person screaming hits the tympanic membrane, and set this and subsequent ossicles in motion which pass into a transparent cochlea [thus showing the hair cells also]. This hair cells bend with the vibrations, because of which spark like electrical discharges are shown to appear).*

"But how does this electric message get in to the brain? Now imagine a wire -just like the wire which carries electricity, a special nerve for hearing, the auditory nerve carries the messages to the brain. It is very much like a wire but a million times more complex. These electrical messages are fed by the auditory nerve into the brain, very similar to what happens in a computer !! So you hear and understand your mother asking you to clean your room.

### **DEFECTS IN THE EAR :**

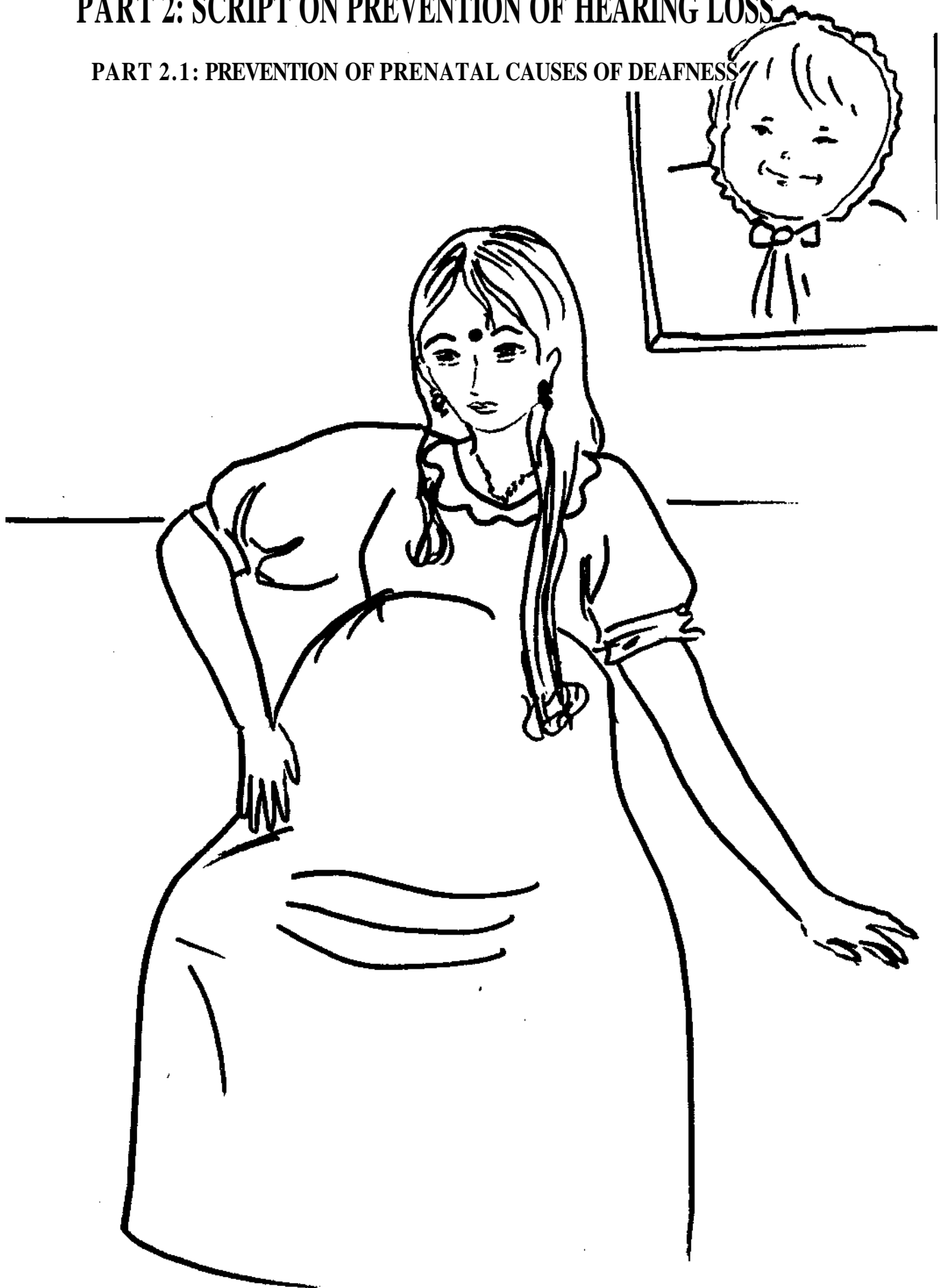
When your outer or middle ear is affected, you are said to have a conductive hearing loss - easy to prevent, possible to cure but dangerous to ignore.

When your cochlea or auditory nerve is affected, you have a sensori-neural hearing loss - easy to prevent but impossible to cure.

When the problem lies at the level of your brain, you hear what people say - but you don't understand.

# PART 2: SCRIPT ON PREVENTION OF HEARING LOSS

## PART 2.1: PREVENTION OF PRENATAL CAUSES OF DEAFNESS



Every unborn baby has the right to be born normal, healthy and complete. Sometimes nature works havoc with these little lives, working in ways that man and his medicines cannot alter or arrest.

But here's good news !! Sometimes simple common sense and caution can do wonders. I'll tell you how. But listen carefully, take down notes where you want, memorise it, tell it to others - your attitude towards what you are seeing or hearing now, what you think, felt or plan to do.

*(Stamped on a collage of smiling faces of children is)*

## **MAKING A DIFFERENCE**

### **What is prenatal life?**

*(While the narrator talks, the video could be of a pregnant mother, shot in soft light, followed by a video clipping of foetus in the uterus)*

Every baby has a secret life of nine months or so in a dark watery, clean, comfortable atmosphere (or must we say fluid?) in his mothers uterus. It is here and during this period that one single cell that looks nothing like a human undergoes breath taking and amazing multiplications and transformations - chubby cheeks, rosy lips, dimpled chin, eyes, nose and ears, tiny hands and feet and a strong strong heart all knit and inter-woven and assembled together almost like a magic.

### **PART 2.1a :**

Have you every wondered why you look the way you do? Frankly Speaking, you did not have a choice because how a baby looks, how his body is made, how healthy he is and how intact and complete

his little frame is - all depends on gene's - that are in heritances from his "ma" and "pa". These genes contain special material that carry a secret "code" - these are the masters in deciding what's the baby going to be. So that's how a baby is born, sometimes with his fathers nose and mothers hair, and sometimes his grand-mothers eyes.

*(While explaining genetics, the video could show the faces of a father and mother with distinct features eg. mother with blue eyes and father with black eyes or mother with curly hair and father with silky hair. Below, this could be an empty circle - depicting the face of the unborn. The circle can be then filled up with may be, hair from the mother, lips and eyes from the father etc.).*

Sometimes there are bad, wicked genes running in a family - a gene that is coded to cause deafness, a cleft palate or any number of various abnormalities. Now when the mother and father are from the same family, they may both be carrying these bad genes. The expecting baby inherits these bad genes - which soon act up. The result is an infant not so healthy and parents not so happy.

*(Here photographs of various cases with genetic abnormalities - tracher Collins, Waardenberg syndrome can be shown).*

So remember, the best inheritance that you can give your baby is healthy genes - not money or land or jewels. When you marry a close relative, you may conserve family riches safely within the family, but double or triple the chances of your baby being born handicapped.

*(The last shot could show a typical bride seeing ceremony - eg. the exchange of plates to finalise the wedding. The scene could*

*freeze at this spot and the following message appears across the scene.)*

**STATUTORY WARNING :**  
**MARRYING CLOSE RELATIVE IS INJURIOUS TO YOUR BABY'S HEALTH**

Part 2.1b:

If you were to examine a single drop of unboiled water under the microscope, you would be shocked even amazed at the number of living things it is teeming with. Many of these can cause infections and many of these infectious may be fatal, which all of us are susceptible to. If you are a pregnant mother, you run the risk of passing the infection to your baby also.

One viral infection that has been a major threat to the unborn baby's developing hearing system is Maternal Rubella or German Measles. When the mother has this viral infection in the first trimester i.e. within the first three months of pregnancy, the damage may be quite extensive - affecting the baby's heart, eyes, ears and brain.

Beware ! Fever with rashes when you are pregnant may indicate rubella. Immediately consult your doctor regarding the best possible course of action.

Better still, anti-rubella vaccines are available for administration to young girls - to ensure a safe pregnancy and a healthy baby.

There are certain other infections also you need to be aware of - Toxoplasmosis, cytomegalovirus, Herpes Simplex and Syphilis.

Though not quite deadly for the foetus as the Rubella, they aren't exactly friendly neighbours either.

Young husband and wives brand new lives are in your hands. Consult your family physician regarding vaccinations and how to go about making the healthy offsprings.

**"You can help us help you".**

### **Part 2.1c:**

Science and man share a relationship that follows an unpredictable course. Most times science obeys man. Sometimes it breaks loose of man's reign of control, rooting damage.

I can see that not many of us are surprised hearing this - you all, already know that science is a good servant but a bad master. A similar principle works when you take medicines too. medicines heal - but can hurt too. When they hurt your ears, we call these ototoxic drugs.

Oto - ears  
toxic - poisonous

These drugs have to be administered with the greatest of caution if we don't want them turning vile and nasty. These drugs can be taken for anything, as simple a complaint as fever, or may be a major threat like brain fever. In large doses, these drugs do their duty and some overtime work as well, leaving behind unpleasant symptoms like a hearing loss.

I'll name some of them for you.



- 1 Aminoglycoside antibiotics : like Kannamycin, Neomycin, Streptomycin, Gentamycin, Tobramycin, Netiknycin, Amikacin.
2. Analgesics : like Salicylates, Indomethacin, Diclofenal.
3. Diuretics : Frusemide, Bumetamide.
4. Anti TB drugs : Streptomycin, lapramycin.
5. Cytostatic drugs : Cyclophosphamide, Cisplatin.
6. Local anasthetics.

Their names may sound like greek and latin to you - a lot of them probably are. Just remember to ask the next time you are prescribed drugs, if they will poison your ears.

If you feel that you are not hearing well enough or that you are starting to hear ringing noises within your head, report these to your doctor immediately. These symptoms signify the beginning of ototoxicity i.e. hearing loss caused due to ototoxic drugs.

If you are a pregnant mother, as usual you have a double responsibility - for yourself and your baby's life. Many of these drugs can cross over to your baby and damage his ear even before he has had a chance to hear his first sound. So take caution - drugs are life savers but can be potential destroyers also.

One more important thing pregnant mothers must remember is to keep away from any form of radiations like X-rays or CT scans as these can damage the babies growth. X-rays and scanning should be opted only after the advice of the doctor.

**Part 2.1d :****Rh-INCOMPATIBLITY**

Now there is a description of a condition that is very different from what you have heard up to now.

I'll start by saying that "before delivery an accurate determination of the mother's and father's blood group is absolutely essential".

An individuals blood group can be Rh positive or Rh negative.

Now Dad, if you are Rh positive, and mom, you are Rh -ve, your baby may have a problem. Now, don't panic - your baby can still be born 100% intact. As a matter of fact, always, your first baby is Rh positive, your second baby is going to face life threatening situation. To avoid this, at the time of your first delivery you will have to be administered with a special injection. Your doctor can tell you all about it. But if you are Rh negative, do remember to ask him about it too.

**Part 2.1e :****HEALTH OF THE PREGNANT MOTHER**

Narrator : The health of the unborn child is highly reflected by the health condition, nutrition, mental condition and physical condition of the expecting mother. Hence, the pregnant mothers should be kept in the pink of her health during pregnancy.

If she suffers from any metabolic or systemic diseases, then they should be brought under control before she conceives. Tins

means to say that medical help should be sought before pregnancy and it should be properly planned. Otherwise the child will be born with some sort of deformities. For eg. A diabetic mother may give birth to a baby with a big head.

*[The video now shows a video clipping of a expectant mother who is transparent and the foetus and other organs can be seen. It should also show how the foetus derives food and nutrition from the mother].*

**Narrator :** The growing foetus requires adequate nutrition which is delivered to the foetus from the mother's blood through a tube called the umbilical cord. The pregnant mother should be provided with lot of fruits, vegetables and other nutritive food such as milk, dal, pulses, sprouts, and so on.

The pregnant mother should be very careful while moving around and should avoid any fall or sudden jerks. People around her should keep her happy always and should avoid hurting her emotionally. So if you want a healthy baby, keep the pregnant mother in the pink of her health during these "special nine months".

The first three months is further more important as there is rapid growth seen during these three months. It is much faster than the rate of growth of any living thing you have seen. So special attention is genuinely necessary during the first three months. She should also avoid any medications or x-rays or scans during this term.

Consult the doctor regularly to check the health of the mother and baby. The pregnant mother deserve intensive care and love.

**PART 2.2 : PREVENTION OF PERINATAL CAUSES OF DEAFNESS**



At one point, after his uterine life, the baby is strong enough to come out into the big and wide world.

This is probably one of the most hazardous and exciting journey the baby will ever make in his life. Pity !! he'll remember nothing of it. But these few minutes can alter the child's life in irreversible ways. Let's see how it happens.

**Part 2.2a :**

**PREMATURITY**

**Some babies are fast,  
Some are slow,  
Some are in such a hurry,  
They just cant wait to go.**

What I mean to say is that some babies are out into the world earlier than they are scheduled. This can be serious because your baby's body and different systems are not yet ready to meet the demands of the world. Because he is unable to cope, such a baby, besides other things, can loose his hearing. These premature babies are highly susceptible to brain damage.

A good doctor -with the right equipment is what this baby needs for those of you, who haven't got the message yet here it is. It you think a home delivery is as safe as a hospital delivery think thrice - an experienced doctor and an equipped hospital is a safer bet any time.

**Part 2.2b :****COMPLICATIONS DURING DELIVERY**

Talking about kinds of babies, some can be very stubborn, or may be they are just too shy. Sometimes its not their fault, their head happens to be a little too big. It is in such cases like this the doctors are forced to bring him out into the world with forceps for example. In the hands of novice, the use of forceps could sound the "deaf knell" for your baby.

A little more pressure on his head than is absolutely necessary, and it could cost your baby his hearing.

**So remember, insist on and assure your baby, expert medical cares.** A good doctor is also an effective presence against other conditions like "cord around the neck" - where the baby's brain can be momentarily deprived of life giving oxygen, depriving your baby of his hearing too.

Apart from this, there are chances of accumulation of toxic substances in mothers blood stream. This again calls the need for delivery under expert hands. So insist on hospital delivery and avoid regretting later.

**Part 2.2c :****EXPOSURE TO CONTAGIOUS DISEASES**

This is yet another cause of hearing loss. So if you want a healthy baby, plan for it before he arrives. Make sure that delivery is carried out in an hygienic environment and under expert hands.

**Part 2.2d :****DELAYED BIRTH CRY**

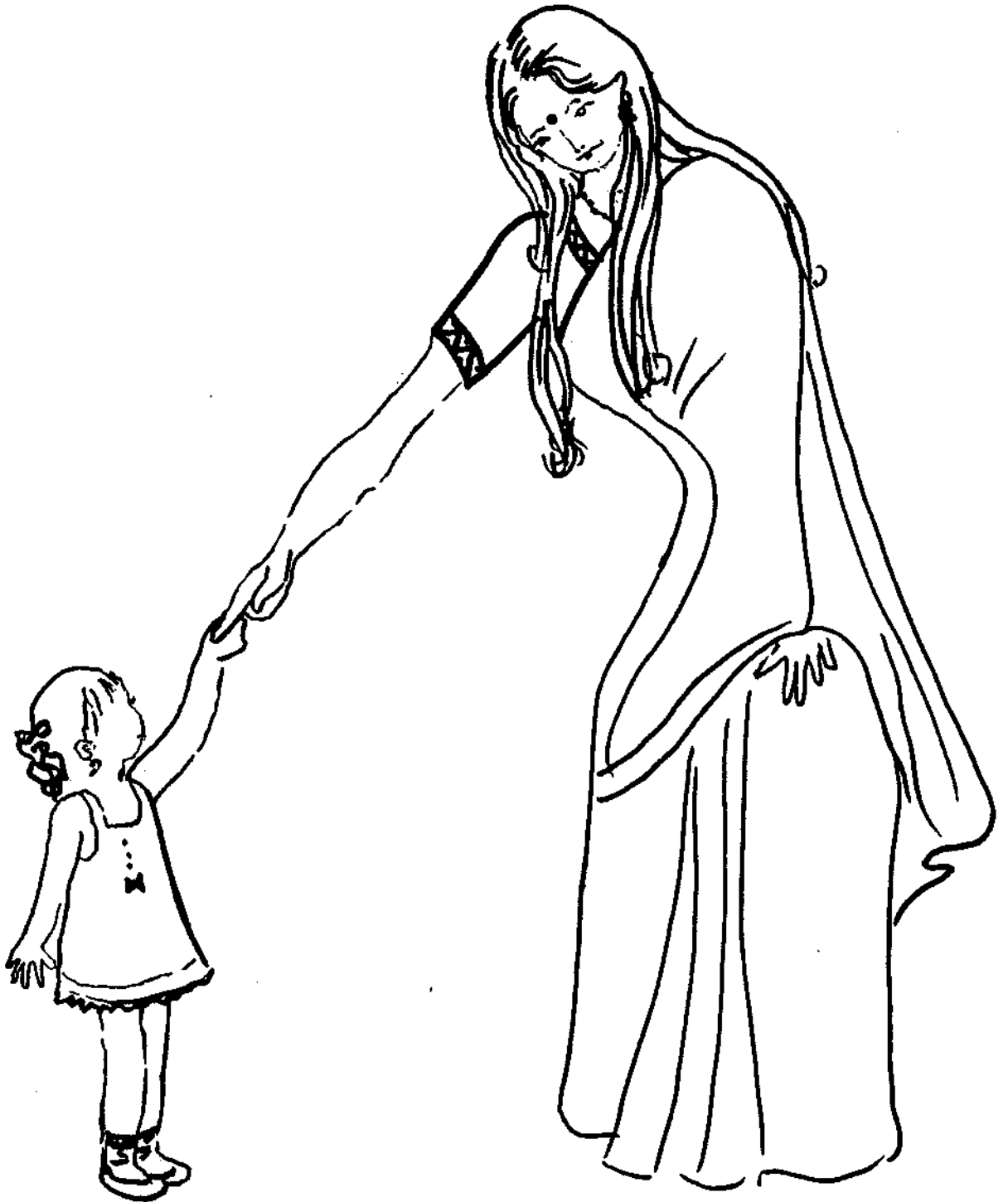
*[Here, we can show the video of a baby crying vigorously and the mother trying hard to pursue the baby to stop crying, at this point the scene is held skill and the narrator says].*

Imagine if the baby did not cry at all? and oop's the consequences when the baby refuses to cry just after birth.

*[Now the video can show a group of members standing outside the labour theater, all tenses. Suddenly at the cry of the baby a scene of happiness and excitement is seen when this scene is shown, the narrator says the following] -*

This is a very common scene in movies -where we see a wave of excitement and relief creeping on every body's faces at the cry of the baby. This is because it is one of the signs of a healthy baby and this is when a baby starts to breathe with his own tiny lungs for the first time. In case the baby refuses to announce his arrival, immediate medical care should be provided so that breathing is continued or else the child may develop some deformity including hearing loss. So I would suggest that its better to go in for a hospital delivery and avoid bad consequences such as giving birth to a child who can't hear you.

**PART 2.3 : PREVENTION OF POST-NATAL CAUSES OF DEAFNESS**





Post-natal period - This we refer to the period from birth to end of life.

**Part-2.3a :**

**IMMEDIATE POST-NATAL INFECTIONS**

Most babies remain healthy and bonny for a major part of their lives - but some special babies can suffer from life - threatening diseases, even when they are first starting to live -jaundice of the new born, brain fever - for example. These infections though not infections of the ear, cause complete deafness.

There's only one solution - a simple one though. We've told it before and we'll tell it again. The pregnant mother and the new born require expect medical care - **INSIST ON IT.**

**Part-2.3b :**

**PHYSICAL TRAUMA**

*He pinched me on the stomach  
said the little teddy  
He tore my frock  
said the lovely rose  
Then It came - a little murmer  
He pricked me all over —  
said the little ear drum.*

Every part of the baby's body including the ear is still soft and tender. So one should be careful while dealing with a baby.

**A MINOR CARELESSNESS OR NEGLIGENCE now  
will make you REGRET EVERY MINUTE LATER-**

**PART 2.4 : PREVENTION OF OTHER COMMON CAUSES OF HEARING LOSS**

**Part-2.4a :**

**UNHYGIENIC HABITS**

*[Animated movie is shown here which has a girl named pinky, a boy - vicky, three other children and a woman who potraits the scene of a mother].*

Can I go for a swim  
Cried pinky to her mother  
oh ! child not in the dirty pool  
Okay mum said pinky very cool.

Oh no Vicky, we can't swim in the pool.  
Mummy says its dirty.  
My ears will itch.  
Not to worry said Vicky.  
We will clean with a pin.

'No' shouted pinky  
Remember teacher told us.

It will break your eardrum  
Okay said Vicky very clumsily.

We will ask grandma to clean it with oil  
Oh no ! I am scared it will pain  
Mummy does it pain ,when gradma does it with oil?  
Oh no ! children, oil will not clean your ear.  
It will make your ear dirty.

Daunted became both of them  
 Okay, we will not swim in dirty pool  
 nor will we clean our ears with pin  
 nor will we put oil in our ear.

- *together they said.*

These children have conveyed very useful message which we adults also sometimes fail to practice. But we'll have to consider it more seriously as the consequences can be very bad to the extent that it can make your's or your child's world, a silent world or drag you into a operation theater. Be careful when you deal with the ear as it is a very delicate and precious organ,more than a diamond. Certain sad practices which are the common cause of hearing loss are due to slap on the side of the head or on the ear and also getting the ear cleaned by road side quacks. Get your ear cleaned only from a doctor or using cotton buds very carefully.

Ear is a very delicate organ and much more precious than any other part of the body so handle with care.

*[At this point a slogan comes on the video].*

Deal delicately with your delicate and precious ears.

### **Part 2.4b:**

Till now I have talked about various conditions that affect the ears and hearing directly. But now I would like to alert you towards very different conditions that may affect your ears and hearing indirectly. Certain conditions which you have never dreamt would in any ways affect your ears !! Very strange, isn't it !!! But its true. So listen carefully.

Toxic effects of measles, mumps, diphtheria, whooping cough, influenza and other unnamed viral infections on the sensitive nerve endings in the cochlea (inner ear) may damage your ear.

So in case of any of these conditions seek medical help immediately. Take medication at the initial level itself from a health care centre.

*[At this point Tom and Jerry (two cartoons) come walking with a banner in their hand].*

**A STITCH IN TIME SAVES NINE**

PART 2.5 : RECENT DEVELOPMENTS



Check in, to know more about the recent developments

**Part 2.5a**

**GENETIC COUNSELLING**

Genes are found in the nuclei of the many cells which compose our body. Genes are concerned with the determination of what an individual's characteristics shall be, and they form the hereditary link between one generation and the next.

The characteristics of an offspring are, to a large degree, determined by the genes he receives from his parents - from his mother through the ovum or egg, and from his father through the sperm cell that fertilized that ovum at the time of conception. Genetic factors present at conception are largely unaltered throughout life. The genes are contained in chromosomes which occur in pairs; one member of each chromosome pair is inherited from the father, the other chromosome member is inherited from the mother.

If the gene transmitted from the mother or from the father has a wicked gene, then there are chances that the child be born with hearing loss.

This wicked gene could be a gene which would cause hearing loss in the offspring or would alter the entire genetic composition of the offspring, resulting in a syndrome of deficits. These syndromes of deficits may be accompanied with a hearing loss. The commonly seen syndromes accompanied with hearing loss include: Down syndrome, Klippel-Feil disease, Marfan's disease, Hallgren's syndrome, Wardenburg's syndrome, Alport's syndrome, Pendred's syndrome, Hunter's syndrome, Hurler's syndrome, Crouzon's syndrome and many more.

If such genetic disorders run in your family, a genetic counselor will be able to help you. They are specially trained medical professionals. They deal with human problems associated with the occurrence, or the risk of occurrence, of a genetic disorder in a family. Genetic counselling emphasizes on accurate diagnosis. So a team of professionals are involved in the process. Genetic counselling is a process of conveying information about the nature of the disorder and available options that are open to the couple who are found at risk of transmitting a genetic disorder.

A genetics evaluation for the child with deafness is very important to exclude any syndromic causes of deafness, to develop a plan for medical management, and to discuss accurately implications for future pregnancies with the family. Even an adult who has developed hearing loss can obtain valuable information from genetic counselling. Here issues on whether their children or grand children will develop any disorder due to dominant or recessive gene carrying it, will be discussed.

Genetic counselling also provides information on the risk-rate *in* the future offsprings. Depending on this, families will be in a position to take apt decisions in the future.

So in families, where there are more than one issue with hearing loss or syndromes, consult a genetic counselor.

## **Part 2.5b**

### **PRENATAL TESTING**

There's a lot of joy, anxiety and anticipation when one hears that someone very dear to you is pregnant. How will the child be?

Will it be a boy or a girl? Will it be fair or dark? Will it inherit mothers blue eyes or fathers black eyes or grandma's brown eyes? Will he have curls like its mother or silky hair like his father? These are the few questions those arise. But the most serious concern is, will the child be hale and healthy?

With the help of modern technology, you can know this before you see the child. Yes ! Testing can be done when the child is in the mother's womb itself. This we refer to as prenatal testing.

Prenatal testing is now able to detect the presence of any syndromic conditions at the embryonic stage itself. Prenatal hearing testing also effectively tests the hearing status of the embryo.

When such services are available why not take the advantage of it. Don't worry this service is available in our country also. For details contact All India Institute of Speech and Hearing



PART 2.6 : INTERVIEWS WITH EARS

*Case Number 1 - A case with noise induced hearing loss*



**Noise, Noise, Noise  
and you no longer hear a Voice**

Narrators : Ajit is 34 years old and a singer by profession.

At 20, he had got himself his very first stereo system with his very first pay. He played it day and night at volumes that drove his family mad. At 25, it was a more sophisticated stereo system. At 26 came an electric guitar with amplifiers and speakers too. Ajit was determined to make it to a rock band status. At 27, it was a dream come true when a famous rock band invited him to be their guitarist. He says he never looked back after that. It was hours and hours of music, music and more music everyday. The crowds loved him and he loved giving the crowds what they wanted. He revelled in the excitement of concerts - the practise, the tension, the performance, centre stage, the bright lights and most of all the loud music.

**What does he think of all that now? Let's ask him.**

**Ajit :** My story starts with the day I heard a ringing sound in my ears. I didn't pay much attention to it. Soon, it became more persistent and more loud - like an alarm clock inside my head that just couldn't be put off. Before long, I realised I was missing out bits and pieces of conversation, unless I listened real hard.

**Narrator :** Ajit visited an audiologist. Ajit's life style left the audiologist with little doubt about the nature of his problem - a Noise Induced Hearing Loss.

*[Talking to Ajit]* : Mr. Ajit, if you could turn the clock back to where you were just starting with your career, would you live it any differently the second time?

**Ajit :** I can't imagine being anything other than a musician. My only regret is that in my enthusiasm to make it to the top, I lost my foresight. Had I been more careful, I could have had my career and my hearing - kind of, have my cake and eat it also ....

*[Ajit talking to the audience].*

Remember friends, a little caution now, can save you a lot of heart break later.

**Narrator :** *(Turning to the audience)* Tinnitus (or noises in the ear) is incurable. I suggest you first close your eyes for a moment and imagine an alarm ringing. Now imagine, this alarm is going to ring all your life and never ever stop, try what you may. But you can be wise and stop it from starting.

*Case number 2 - Complications of sore throat and cough*



**Don't neglect them -  
*Consequences may be bad***

**Narrator :** Let's meet Mallika now. This is the school where she studies. Oh ! that's her classmates at the playground. Mallika should be here somewhere - or is she sick and not attending school again?

Even as a toddler, Mallika was constantly coughing or sneezing. Her parents never took it too seriously. Now who didn't occasionally cough or sneeze? And whoever heard of a common infection like that having sequelae and complications? Mallika's parents learnt that this was so through their little daughter and it was very difficult for them to believe.

"ah ! That's her mother there !

Good morning Mrs. Saahil ! How is Mallika doing?

I didn't expect to see you here today !

**Mrs. Saahil :** *[Turning back in surprise].* Hello ! I didn't expect to see you either. I had actually come to explain to the principal that Mallika wouldn't be attending school for three weeks. The doctor has recommended a surgery for her ear. It seems there is now a danger of her ear infection reaching the brain.

**Narrator :** Mrs. Sahil, there are hundred of parents in the country who don't know what a sore throat or cough can do to their child. Will you tell them please?

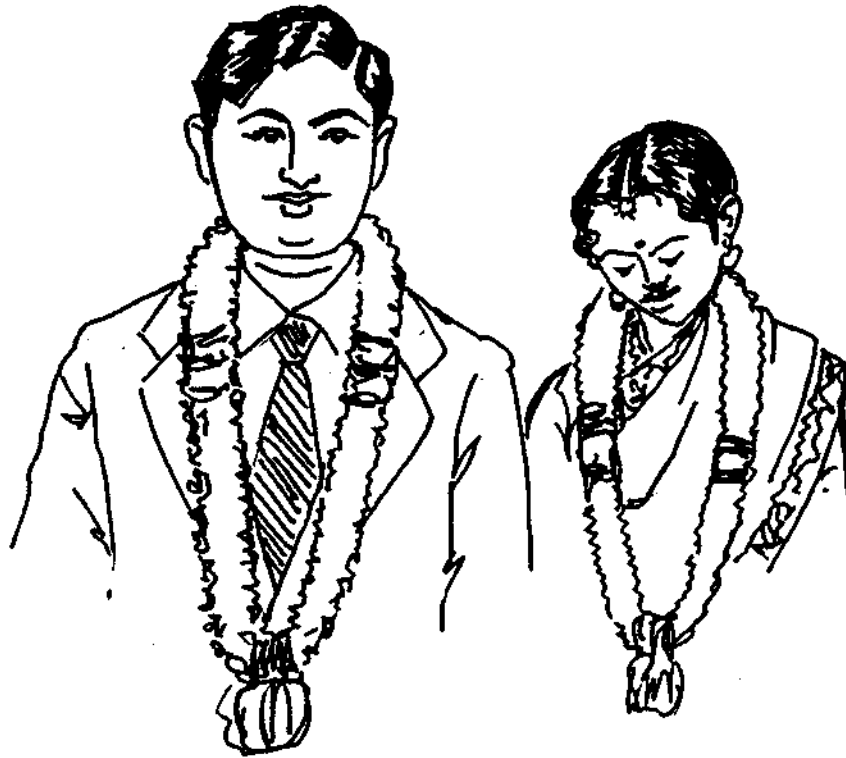
**Mrs.Sahil :** Anything - anything to save an innocent parent from going through trauma like we have.

My daughter had ear infection very, very often. Soon we were so accustomed to it, we didn't so much bother consulting a doctor. We thought it would be gone on its own. A few months later, the throat infection was still there and in addition there was an ear ache and discharge from the ear as well. We treated it with antibiotics which we prescribed ourselves - but they did not help. That's when we decided to take her to the doctor. Her tympanic membrane has a hole he said. Treatment followed treatment - but the infection never really left her neither did the ear discharge or ear ache. Besides, an audiologist who tested her hearing also said that she was not hearing properly from both ears. This surgery, I hope is going to be the last treatment she will have to go through.

It's been very difficult for her - the discomfort, the pain, the medication, having to miss school, not see friends, home work and class work to catch up with. . . . Sometimes I feel guilty about having been irresponsible. **Timely intervention could have saved our daughter from so much trouble.**

*Case number 3 -*

*Consanguinity !!*



Marriages between close relatives  
may give rise to a child with  
speech and hearing disorder

*(Scene at the clinics - a therapy session. For eg. Showing child with parents)*

**Narrators :** This one-and-a-half year old toddler Shameem was diagnosed about four months ago as having a profound hearing loss (which means that little Shameem can't hear even a very loud door bang). Shameem's mother keeping with the custom of the family, married her uncles son. Little did they realise then, the effect this would have on their then unborn son.

This kind of marriage among blood relatives, is the unwritten law in their family and so Shameem is not the first child to be born deaf. But this fact does not make their daughter's handicap any easier for them to accept.

Her parents Mr. and Mrs. Rafi have offered to share their experiences with us *(Turning to the parents)*

**Father (Mr. Rafi) :** Thinking back, I can remember whole nights when my wife would sit up weeping for her daughter Doesn't mean we did not love Shameem - she "was a beautiful baby and brought so much joy into our lives - but there was always that little living of sadness..." How shall I put it? dreams of is lost forever.

Shameem wears a hearing aid now and we are working very very hard with her. Otherwise, the audiologist says, she may never learn to speak or understand what we speak to her.

When I think that her life could have been so much more easier had -we been more cautious, I feel terrible. But the damage is done



As parents who have been through the pain of seeing their child suffer, we'll tell you this. The message on this video can make the difference between happy living and mere existence - for you and your child.

*(Narrator says the following, while the caption **run** through the screen).*

**DID YOU KNOW THAT MORE THAN 75% OF THE HEARING  
LOSSES CAN BE PREVENTED**

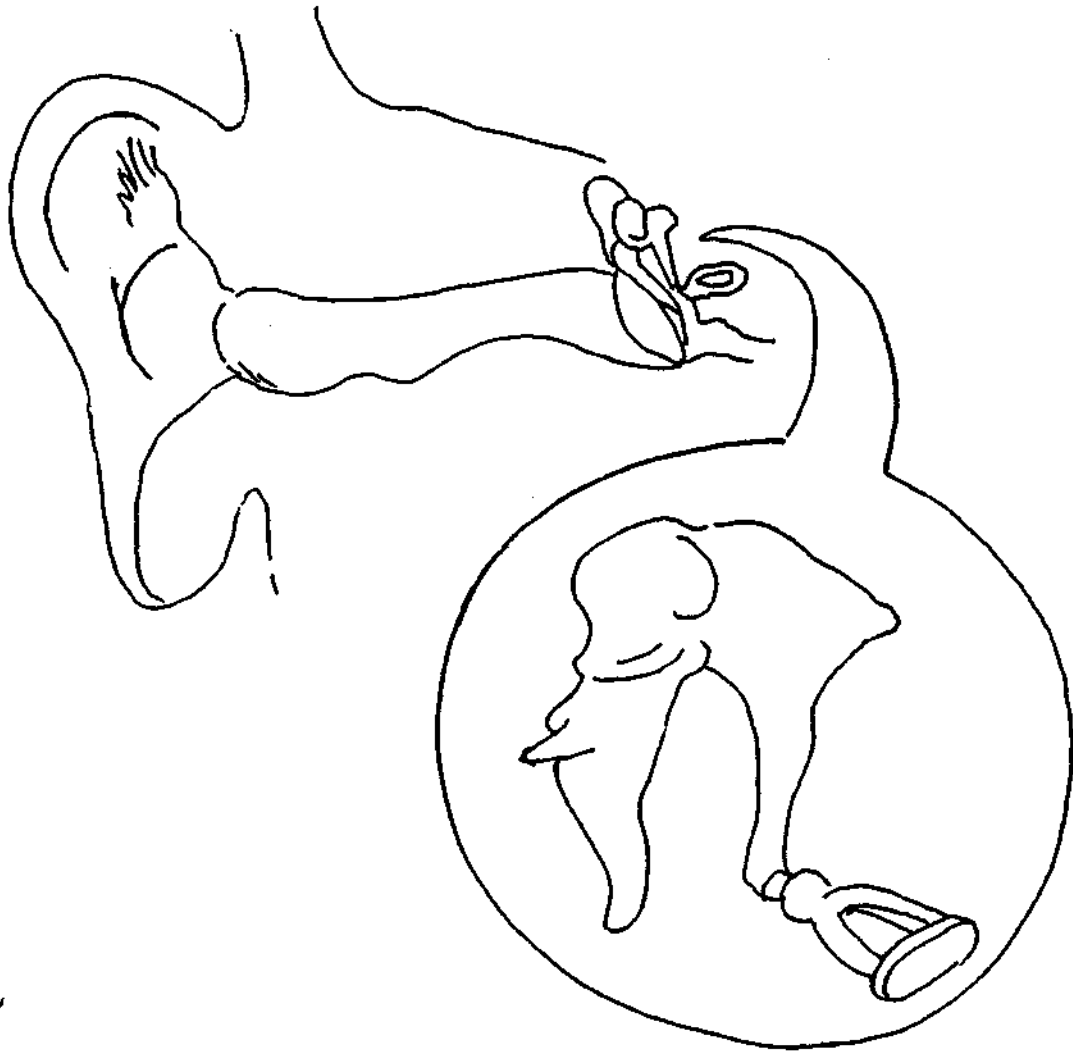
**Narrator** : If you don't believe me !! Let's hear it from the professionals themselves.

**ENT Doctors** : Many kinds of hearing loss can be prevented from starting, or even if they have already, can be prevented from getting worse. The first is called primary prevention, the second secondary prevention.

You don't have to suffer from a hearing loss or its associated symptoms. Be wise-just prevent it.

**Audiologist** : For those of you there who think a hearing loss catches you like a thief in the night and that you are helpless in this matter. Don't be cheated. It's not always so. You can keep it well out of your lives. We are there to help you do it.

*Case number 4 - Otosclerosis*



Early surgical intervention of this condition is beneficial

**Narrator :** Hi ! Let me introduce you to Anjali who has been diagnosed as having otosclerosis by the audiologist. Before that, let me brief you up -with this condition.

In this condition, the last bone among the three small bones which stand hand-in-hand inside the middle ear, gets fixed to the oval window of the cochlea (inner ear), it is present in about 10% of the whites and about 1 % of blacks. They also seem to occur more frequently in areas with a low flouride content in the drinking water than in areas with high flouride content. This disease also seems to affect certain families more than the other families. So be aware if your family as a history of Otosclerosis, especially if you are a female. Although being a male does not fully exempt you from developing this disorder. Of course ! Men are at a lesser risk than females.

So, lets ask Anjali to provide you with more information about this disorder and her ear and hearing.

**Anjali :** Well ! My history starts during my first pregnancy thats about two years back. The first fore warning sign was difficulty in hearing in certain situations. The loss kept increasing but I kept neglecting it, untill one day I started hearing some water gushing sound in my ear which really put me in a havoc. I recently met a ENT surgeon who suspected otosclerosis after knowing my family history. He said that almost 50% of the cases with otosclerosis had positive familial history. The diagnosis was then confirmed through audiological evaluations. The audiologist had some more bad news for me. He said that, the disease process had even spread to the inner ear (cochlea).

**Narrator :** (*Turning to the public*) Anjali had the initial awareness of hearing loss during pregnancy. It is seen that in about 50% of women, the loss develops or increases rapidly, during or immediately after pregnancy.

So I would like to awaken the women folk that they immediately seek medical or audiological advice if they felt that their hearing ability reduced after delivery or during pregnancy.

**Narrator :** (*Turning to Anjali*) Do you have loss in both ears?

**Anjali :** Yes, it is present in both ears. One more peculiar thing I feel about my hearing is that I hear better in noisy environments. And when I say this to my husband, he says that I probably need psychological help.

**Narrator :** (*Immediately*) You are very correct in sensing this. Some of my patients with this disorder has reported the same phenomena. Even the gushing sound of water which you experience to come from within the ear is reported by many people with this disorder. This disorder also affects both ears in most of the people, but may affect only one ear in few.

**Narrator :** Didn't you meet the doctor after you got the report.

**Anjali :** I met him few days back and he advised for a stapedectomy. The doctor also said that hearing is restored to normal levels after this surgery in most of the cases if they are diagnosed at the early stages of the disease.

*(Regreting on what has happened to her ear and hearing)*

If only I had acted 'on time', a surgery would have completely restored my hearing. I have anyway taken an appointment for the surgery which would improve my condition, but it may not solve my problem completely as the disease has progressed to the inner ear. All thanks to my carelessness !! The doctor says that any damage to the inner ear cannot be healed completely. I feel I am fully responsible for my present state.

**Narrator :** Thank you Anjali and before we depart do you have any message or advice to the public.

**Anjali :** Certainly yes ! To save those dumb heads like me. Consult a doctor as soon as you suspect a hearing loss especially if the problem increases or breaks off during pregnancy. Don't overlook it, till you arrive at a stage where medical science cannot help you. I hope you all got the message I want to say... Yes ! Do not allow any infection or a hereditary condition like otosclerosis to knock the inner ear door.

**Narrator :** That was very informative and I hope it would open the eyes of those women who usually tend to neglect

their hearing, especially if there is a familial history of otosclerosis. This does not mean others can take hearing problem for granted. Men also can develop this disease. SO SEEK AUDIOLOGICAL HELP IN CASE *OF ANY HEARING PROBLEM.*

*Case number 5 - Presbycusis*



Over the years, your ears fail

**Narrator :** All of us, know of people who had normal hearing but as they got older and crossed 65 years, started showing some sort of difficulty with understanding of speech. This is a normal phenomena with aging and we refer to this condition as prebycusis. For example, I remember my own grandpa who used to make me repeat what others had told. He sometimes used to pull me close to him when he found it difficult to understand what I was speaking. I am sure all of you would have experienced similar experiences sometime or the other. There comes my grand aunt who is in her 70's she wears a hearing aid. Can you see that tiny equipment behind her ears? Come on, lets speak to her.

**Narrator :** Hello aunty. How are you?

**Narrator :** Can you tell something about your hearing problem. How and when it started?

**Mrs.Sarah :** Well ! God had gifted me with all the five senses. I could hear normally till I was around sixty-five years. Initially, I had problem understanding speech, but I could hear all the sounds around me. So it was tough for me to accept when this child (pointing to the narrator) said that I was gradually developing some hearing loss that interfered with my communication.

**Narrator :** Yes ! That was the initial stage ! It is very commonly seen that people report of difficulty in understanding speech although they deny any hearing loss. This does not mean that they don't have any loss, but most often their loss is to a lesser extent.



**Mrs.Sarah :** I remember my initial report and it declared a loss which was of smaller magnitude than my present state. It was really tough for me to believe then. Later as my loss was increasing, I felt that I was missing out information from the environment.

At some instances I even felt disappointed because some of them hesitated to speak to me as they had to raise their voice to speak to me. Jokes had always been the spice of my life. People refused to share jokes with me. That is when I went to a audiologist and after the testing, he prescribed the type of hearing aid most suitable to me. It is now one of my greatest assets.

**Narrator :** *(Turning to the audience).* Remember, hearing aid should always be selected with the help of an audiologist. They bring sound to the silent world of the hearing-impaired but it could also harm your ear if the hearing aid you use is not suitable to you. So be careful when you select the hearing aid. Always take professional help or else it shall further worsen your condition.

**Narrator :** *(Turning towards Mrs. Sarah).* At any instance did you feel that your hearing aid is disobeying you?

**Mrs.Sarah :** It has been always loyal to me like my dog. But as the saying goes, your own gums are more relished with than others teeth (artificial dentures). Man's creations can never over power

God's creations. So one should always be careful while speaking to a hearing aid user. One should always face the person whom one is speaking to. I find it difficult to get the whole message out, when the speaker is facing his back towards me while conversing with me. While listening to others I observe the movements of their lips which promote my understanding of speech. So one should also articulate well when one is speaking to a hearing-impaired person.

**Narrator :** Do you have difficulty in comprehending speech in noisy areas.

**Mrs.Sarah :** uumm....No ! I have never experienced that way.

**Natter:** Some people with this disease experience difficulty in understanding speech in noisy areas. So people should try to co-operate with such people. That is, one should articulate properly and face the person while speaking to them.

**Mrs.Sarah :** Shall I ask something? Out of curiosity, basically.

**Narrator :** *(Nods his head, indicating Mrs.Sarah to continue).*

**Mrs.Sarah :** *(After a brief pause).* Is there any way that this disease be prevented.

**Narrator :** As I had already mentioned certain changes may occur in any part of the aged ear which is a part

of the normal aging process. There might be individual differences but apart from this hearing loss due to aging co-exists with other conditions like ototoxicity that is hearing loss due to intake of drugs that is toxic to your ears; hearing loss incurred due to previous exposure to noise; metabolic disorders and general medical health.

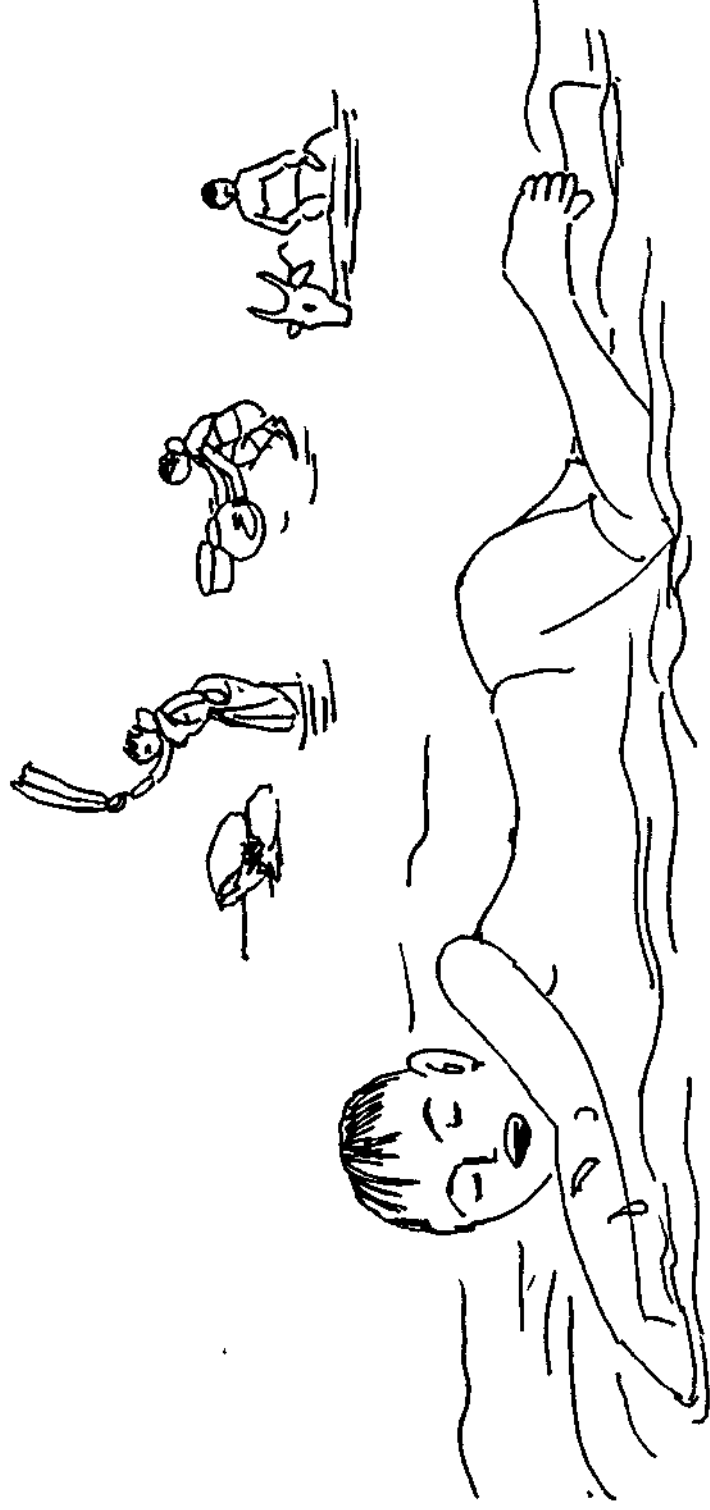
So to reduce the handicapping effects of hearing loss due to aging, plan for it before you start aging. If there is a history of such co-existing conditions, hearing check-up should be done once in six months.

*[Then put up this slogan]*

Life begins at 58 years. So plan for it now !

**Hear well even in your old age.**

*Case number 6 - Ear infection*



**Prevention is better than cure**

*[A scene near a sea-shore]*

**Narrator :** Hi Raj

Raj : Hello uncle

**Narrator :** Whats wrong ! Why are you crying.

*[Raj flings into the narrator s arm and starts crying loudly].*

**Narrator :** Stop Crying .... Tell me ... Stop crying ... Tell me what's wrong?

**Raj :** My ear ... Sob ... Sob ... and I have to wear this hearing aid always.

*[Raj once again burst out crying].*

**Raj :** Uncle I feel so miserable that I myself am responsible to this present status of mine.

**Narrator :** Tell me how did you encounter this ear problem?

**Raj :** It all began when I plunged into a dirty pool. My parents had warned me not to go there. Then my ear started itching and I refused to tell my parents. Sometime the pain became unbearable. There was even lot of pus coming out of my ears which had a bad smell. I spend several sleepless nights because of this ear pain till finally I started running fever. At this time my parents took me to the doctor and brought medicines. But I was

very stubborn and refused to eat the medicines and threw away some of them without my parents knowledge.

Little did I realise, till the pain subsided that I had difficulty in understanding speech. I felt very miserable as I missed out the jokes my friends shared. I even found it difficult to understand what the teacher was telling. So I "was taken to the audiologist for hearing testing to the nearby health center. Testings showed that there was certain damage to the inner ear i.e. cochlea which he said could have caused due to the infection that was present in middle ear. Since the middle ear infection was not stopped immediately it slowly progressed to the inner ear and caused the damage. Because of this damage, I cannot hear properly. Thats the story of my ear which has to suffer because of my negligence and stubbornness.

*(Then a slide comes on the screen).*

TAKE CARE OF ME AND I SHALL TAKE CARE OF YOU.

**Narrator :** You all have just seen the consequences of neglecting a ear infection. So in case your ears are itching or there is some discharge or ear pain, consult a doctor immediately. Ear infection can be caused due to a variety of reasons such as using towels or pillow covers used by individuals with ear infection, putting infected objects or dirty

objects into the ear, swimming in dirty water, by getting your ears cleaned from road side quacks. Most these causes can be prevented. So take care of your ears and save your ears from infection. These infections can be treated well with medicines at the early stage as you all have already seen. But as the old saying goes "**PREVENTION IS BETTER THAN CURE**" is very true.

## BIBLIOGRAPHY

Arnos, K.S., Israel, J., Devlin, L., Wilson, M.P. (1992). Genetic counselling for the deaf. *Otolaryngologic Clinics of North America*. 25(5), 953-971.

Hull, J.M. (1995). *Hearing in aging*. Singular Publishing group, Inc, California.

Jerger, S. and Jerger, J. (1981). *Auditory disorders :A manual for clinical evaluation*. Boston Allyn and Bacon.

Northern, J.L., and Downs, M.P. (1978). *Hearings in children, 2nd ed.* The Williams and Wilkins Company, Maryland.