Hear better and live life to the fullest.
About hearing loss, the possible impacts, and solutions that can help.
Life is intricate, showering us with experiences. Sight, taste, touch, smell, and hearing: Our senses are woven together like a net that helps us capture the details. But what happens if one of the fibers wears or breaks? Can the net be mended?

If you or a loved one suffer from a hearing impairment, you may find the answers you’re looking for in this brochure. The following chapters focus on hearing loss – explaining how hearing works, the possible impacts of conditions like a hearing impairment or tinnitus, the special needs that children with hearing impairments have – and also offer concrete solutions.
Hearing – makes sense of life.

A grandchild’s first words, the rustle of leaves in the wind, the clinking of glasses at the table or whispered secrets from a best friend: These are the moments we hold dear. It’s these sensory experiences that enrich our lives.

Hearing enables us to understand our fellow human beings and to interact with the world around us. These are all things that can be taken away by hearing loss.
Deteriorating hearing makes it increasingly difficult for us to converse with other people. We mishear things with greater frequency and have to keep asking people to repeat things. Outsiders can often react with miscomprehension. All this eats away at our self-confidence and can have a negative impact on our general well-being and our quality of life as a whole.

Hearing loss is not something to be taken lightly. It is important to do something about it, sooner rather than later – to maximize the enjoyment of life.

Possible impacts of hearing loss:
- Decreased attention
- Diminished understanding of speech
- Trouble communicating with others
- Diminished memory
- Less willing to embrace the unknown
- Declining job performance
- Lack of acknowledgement by others
- Irritability, stress, depression
- Withdrawal from social life, isolation

Sources:
(1) Arthur Wingfield et al., Brandeis University, Waltham, Current Directions in Psychological Science, Vol. 14, No. 2
(2) Psychological Profile and Social Behaviour of Working Adults with Mild or Moderate Hearing Loss, Acta Otorhinolaryngol Ital., April 2008
(3) Ear and Hearing 2009, 30, 302–312, Lippincott Williams & Wilkins
How to recognize the first signs of hearing loss.

Hearing loss generally develops slowly over many years; the effects become apparent only gradually. This makes it difficult for those affected to recognize that they are actually suffering from a hearing impairment. Relatives, friends or colleagues are often the first to realize that something is wrong.

However, there are clear signs that your hearing is not entirely as it should be. Perhaps you find it difficult to understand the phone conversation clearly? Does your family complain about the volume when you are listening to the radio or television? Do you find it difficult to follow a conversation in a restaurant or when there is a lot of noise in the street around you? Do you often feel exhausted after family celebrations because listening is such an effort? Do you hear better when you are able to look at the person talking to you?

All these are typical signs of a hearing impairment. But don’t worry; hearing loss is not something simply to be endured. You can – and should – do something about it.

If you are uncertain whether you are suffering from hearing loss, just take the quick test on page 15 of this brochure.
Facts about hearing

More than 700 million people around the world have a hearing impairment. (2)

Only 35% of all people with hearing loss are over the age of 64. (1)

Worldwide 8.5% of all people between the age of 20 and 30 suffer from hearing loss. (4)

Only 5 – 10% of all cases of hearing loss in adults can be treated medically or surgically. (3)

Many people with hearing loss wait as long as 10 years before they do something about it. (5)

Sources:
(1) Better Hearing Institute
(3) Better Hearing Institute
(4) American Johns Hopkins University in Baltimore, Maryland
(5) hear-it.org

Only old people have poor hearing? Not true!

It is not only older people who suffer from hearing loss. Poor hearing is widespread across all age groups. Today, young people increasingly have hearing impairments too – excessively loud music listened to via headphones, at concerts and discos is having a major impact. Construction workers, ambulance drivers, DJs and factory workers: These are all examples of professions where loud noise can have a lasting and damaging impact.

Hearing loss can, of course, also be caused by medical, genetic or simply unknown factors.

However, one thing is clear: You are not alone in suffering from a hearing impairment. Today, one in six people have some degree of hearing impairment.

Sources:
(1) Better Hearing Institute
(3) Better Hearing Institute
(4) American Johns Hopkins University in Baltimore, Maryland
(5) hear-it.org
Information for friends and relatives

Hearing loss is not only a problem for the hearing impaired individual, but also for friends and relatives. During conversations, they often receive incorrect responses or even no response at all. They feel ignored or that they are being deliberately misunderstood. This has a negative impact on the home environment and can lead to a bad atmosphere and conflict.

Even though hearing impaired individuals might not want to admit it, ignoring hearing loss and not doing anything about it is not going to solve anything. After all, poor hearing has far-reaching consequences – both for the individual affected and for the people around him/her.

For example, the hearing impaired individual might not hear phone calls or the door bell, missing a chance to enjoy family or friends. Or they might not be able to fulfill work requirements because they did not understand the task instructions, causing trouble in their job. (1)

What can you do if a family member or friend is suffering from hearing loss? Encourage them to do something about it and take a hearing test. And remember the rules for communicating with a hearing impaired individual.

Source:
(1) Psychological Profile and Social Behaviour of Working Adults with Mild or Moderate Hearing Loss, Acta Otorhinolaryngol Ital., April 2008

Tips for communicating with a hearing impaired individual:

- Look for a quiet environment in which to talk.
- Take care to ensure that your dialogue partner is not distracted.
- Face the person to whom you are talking.
- Make it clear what you want to talk about.
- Take care to speak clearly.
- Do not jump from one topic to another.
Quick test

If you have ticked “YES” four or more times, we recommend you contact a Hearing Care Professional or ENT doctor.

Ten questions to assess your hearing:  

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do the people around you seem to mumble and not speak clearly?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has anyone ever told you that they often have to repeat things for you?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is it hard for you to understand when someone talks to you from behind or from the side?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Does it take a lot of effort for you to understand someone if they talk quietly or whisper?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you have trouble hearing high-pitched tones like music, birdsong, children’s voices, etc.?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is it difficult for you to follow conversations in loud environments, for example, in restaurants?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you tend to go out less because it is hard for you to follow other people’s conversations?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has anyone ever asked you to turn down the volume of your television or radio?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you have difficulties hearing someone at the other end of the telephone?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you have trouble recognizing the direction from which a car, for example, is approaching?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

How good is your hearing?

We are often unaware of how well or poorly we hear on an everyday basis.

If you want to know how good your hearing is, simply answer the adjacent questions. And in the next few days, pay particular attention to the everyday situations described.

You can also test your hearing by taking our online hearing test at www.siemens.com/hearing or via the smartphone app.
Only a professional hearing test can assess your hearing correctly.

Are you uncertain whether you have a hearing impairment? Do you want to have your hearing tested by a professional, just to make sure? If you answer “YES” to either of these questions, you should contact a Hearing Care Professional or ENT doctor.

A hearing test examines your hearing – it is quick and painless and comes with no obligation whatsoever. It determines whether you are suffering from hearing loss and to what extent. It also carefully examines the ear to ascertain the possible reason for the hearing impairment.

If there is a medical cause, the otolaryngologist will treat the hearing loss accordingly. If hearing instruments are necessary, then you should contact a Hearing Care Professional, who will offer you detailed advice and help you choose the best hearing instruments for your individual needs.

After careful adjustment of the hearing instruments and a brief adaptation period, you will enjoy all the sounds you’ve missed again.
Hearing instruments help you hear well again.

Many people find it hard to come to terms with the idea of wearing hearing instruments. They put off the decision and only do something about it when the problems associated with poor hearing simply become too much for them.

However, the earlier you do something about hearing loss, the better. Even when hearing is just starting to deteriorate, hearing instruments help to maintain neural pathways in your brain responsible for hearing all the sounds around you. The longer you put off hearing instruments, the harder it will be for you to get used to them when you do finally wear them, and more importantly, the more you’ll miss out in life.

After all, hearing is no different to any other part of the human body: it requires exercise and stimulation. Hearing stimulates and trains the brain. If this stimulus is taken away, hearing not only gets progressively worse but the understanding of speech will also start to deteriorate at some point.

Last but not least, hearing instruments enhance quality of life. Wearers can again hear the positive sounds of life: The voice of a grandchild, birdsong, the rustling of leaves...

The technology of hearing instruments has advanced rapidly. Today’s devices are capable of so much more than they were just ten years ago. Ask your Hearing Care Professional to show you the latest Siemens hearing instruments and you’ll be surprised by their size, power, sophistication and design.

You will find more information about hearing in general and about hearing instruments in particular in the following chapter, "What you need to know about hearing."
About hearing

Good hearing is so important in our everyday lives, yet most people with normal hearing don’t even think twice about what it means to be able to hear well. Chatting with friends, listening to the sounds of nature, enjoying music or hearing warning signals – they take it all for granted.

It is only when hearing starts to deteriorate noticeably that we realize just how important good hearing is in our everyday lives. And how much we miss out when we no longer hear well.

Our hearing plays an important role in how we relate to our surroundings. It facilitates the forming of relationships, and opens up a wealth of sensory experiences. It is also very complex and extremely sensitive. So let’s give it the attention it deserves...
What does hearing loss mean?

No two cases of hearing loss are the same. However, most often people with a hearing impairment are unable to distinguish soft tones and high-pitched sounds and have difficulties hearing sounds such as whispers, children’s voices or birdsong. The understanding of speech also suffers because, as the graphic shows, many of the sounds important for understanding speech, are soft, high-pitched sounds such as “s” or “th”. These are sounds that help us determine the difference between “path” and “pass”. And, however paradoxical it may sound, increasing the volume is of limited help. Most likely, people with a hearing impairment need clarity, not volume.

Hearing impairments can occur in all parts of the ear; dysfunctions of the outer or middle ear can generally be treated with medication or surgery. However, a good 80% of all hearing impairments are caused by dysfunctions of or damage to the inner ear. Today, modern hearing instruments can compensate for most inner ear damage.

Possible causes of hearing loss:
- Infections or chronic illnesses
- Injuries
- Genetic factors
- Medication that can damage hearing
- Exposure to ongoing or extreme noise
- General wear and tear

The ear – a miracle of nature.

The ear is an amazing and incredibly skilled organ that performs the wonderful and highly complex task of hearing. It can distinguish between 7,000 different pitches and enables the brain to locate sound sources.

How hearing works:

- **Outer ear**: This part of the ear picks up sound and directs it to the eardrum via the ear canal.
- **Middle ear**: The sound makes the eardrum vibrate and is amplified by the ossicles, three tiny bones called the Malleus, Incus and Stapes.
- **Inner ear**: The cochlea converts movements of the ossicles into electrical signals. The auditory nerve transmits the signals to the brain.

The ear is a miracle of nature.
What are the different types of hearing instruments?

As a rule, hearing instruments are categorized according to type. There are two basic types: Behind-the-ear (BTE) and In-the-ear (ITE) instruments. The type that is right for you depends on your hearing impairment and on the anatomy of your ear, as well as on your personal requirements with regard to technology and design. Your Hearing Care Professional will be happy to advise you.

**BTE instruments:**

Behind-the-ear hearing instruments are inconspicuous and comfortable as they do what the name says: They sit behind the ear. BTE hearing instruments are available in two variants: With a tube that delivers the sound from the hearing instruments into the ear, or with an external receiver that sits directly in the ear canal. BTE hearing instruments are available in different performance levels and in many individual colors and designs.

**ITE instruments:**

In-the-ear hearing instruments are worn directly in the ear. They are custom-made based on the anatomy of the wearer’s ear. They sit either in the bowl of the ear or deep in the ear canal.

**Components of a hearing instrument:**

- **Microphones:** Pick up the sound.
- **Receiver:** Transmits the sound.
- **Mini-chip:** Processes the sound in accordance with individual hearing needs.
- **Battery:** Powers the instrument.
- **Tube with earpiece:** Delivers the amplified sound to the ear.
Better hearing – in every situation.

Hearing instruments have come a long way in the past few years, and there is now a solution to compensate for almost every type of hearing impairment. Modern hearing instruments are not just small and inconspicuous, they are also extremely powerful and versatile. They can do much more than simply make sounds louder. Intelligent technologies based on microprocessors help to compensate for various forms of hearing impairments.

<table>
<thead>
<tr>
<th>Type of hearing problem:</th>
<th>How technology can help:</th>
</tr>
</thead>
<tbody>
<tr>
<td>You have trouble understanding conversations in loud environments, for example in restaurants or at parties.</td>
<td>In loud environments, speech is accentuated and ambient noises are suppressed.</td>
</tr>
<tr>
<td>People around you seem to mumble.</td>
<td>High pitches that are important to understanding speech correctly are amplified but low pitches which add volume are not.</td>
</tr>
<tr>
<td>You cannot clearly identify the direction from which sounds come.</td>
<td>Innovative microphone technology in the hearing instruments improves the localization of sounds and noises.</td>
</tr>
<tr>
<td>Music sounds very muffled and dull.</td>
<td>High pitches that the ear cannot detect are amplified and accentuated so that music sounds clearer and more brilliant.</td>
</tr>
<tr>
<td>You can only understand television and radio programs if the volume is high.</td>
<td>With suitable accessories, sounds can be transmitted directly and wirelessly to the hearing instruments from devices such as TVs, phones and mp3 players.</td>
</tr>
</tbody>
</table>
Important factors when choosing hearing instruments.

There is no “one size fits all” answer to hearing loss. Each solution is as unique as the individual impacted. When choosing hearing instruments, many factors have to be taken into account, particularly the degree of hearing impairment and the individual ear anatomy.

However, it’s not just restoring the hearing loss that is important. Other important considerations arise from your own individual lifestyle requirements. For example, do you want particularly unobtrusive, discreet instruments, or are you more interested in an attractive design or fully automatic control? It is also essential to consider the situations in which you want to achieve improvements. Are you dependent upon good hearing at meetings or on the telephone? Do you go out a lot – to the theater or restaurants – or are you more the type to stay at home? These are all things to consider when choosing the type of hearing instrument that is right for you.

Your Hearing Care Professional will be happy to help you select and configure all aspects of your hearing instruments.
What do you need?

Wearing hearing instruments can take some getting used to, so it’s important you feel that you’ve made the right choice from the outset.

To help you decide on the right hearing instruments, we have put together ten questions that you should ask yourself before visiting your Hearing Care Professional.

In which of the following situations do you wish you could hear better?

<table>
<thead>
<tr>
<th>Situation</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>During a one-on-one conversation in a quiet environment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When talking in restaurants or at parties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At meetings or conferences</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When driving</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When watching television, listening to music or in the cinema</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

What is particularly important for you in hearing instruments?

<table>
<thead>
<tr>
<th>Feature</th>
<th>Very Important</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum discretion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ease of use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discreet remote control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compatibility with modern entertainment and communication technology</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Siemens have been helping the world to hear – for more than 130 years.

Each Siemens hearing instrument incorporates more than 130 years of experience and expertise. In 1878, Werner von Siemens developed the Phonophor hearing instrument and became a pioneer for many other innovations in the field of audiology. Today Siemens BestSound™ Technology sets new standards in hearing technology. We take a holistic view and our instruments aim to do far more than simply compensate for loss of hearing: Our goal is to enhance the quality of life for hearing impaired individuals.

1878
Werner von Siemens develops a telephone receiver which also helps the hearing impaired.

1913
Esha-Phonophor, Siemens begin the serial production of hearing instruments.

1949
Phonophor Alpha, Siemens present their analog hearing instrument.

1966
Siretta 339, Siemens present their In-the-ear hearing instrument.

1987
Teko, Siemens launch the first remote control in the world of hearing technology.

1997
Prisma, Siemens present the first digital hearing instrument featuring two microphones.

2002
Triano, Siemens launch the first hearing instrument with three microphones.

2004
Acuris, Siemens introduce the first hearing instrument featuring a wireless system, e2e wireless, small enough to fit in CICs.

2008
Tek, Siemens introduce a revolutionary wireless enhancement system giving wearers unprecedented access to all favourite audio devices.

2011
Aquaris, Siemens introduce the first digital waterproof, dustproof and shock-resistant hearing instrument.

2010
BestSound Technology, Siemens write a new chapter in hearing instrument technology.

2012
Siemens researchers win the "Deutscher Zukunftspreis" (German Future Award).

1997
Telos, Siemens present the first digital hearing instrument featuring two microphones.

2002
Siretta 339, Siemens present their In-the-ear hearing instrument.

1949
Phonophor Alpha, Siemens present their analog hearing instrument.

1913
Esha-Phonophor, Siemens begin the serial production of hearing instruments.

Esha-Phonophor: 100 Years of Quality Innovation.

At the turn of the year 2013 to 2014, Siemens celebrated the 100th anniversary of its Esha-Phonophor hearing instrument, the smallest and most powerful instrument of its time and the foundation for a century of success in the development of hearing aid technology. It all began with Werner von Siemens’ improvements to the sound quality in telephones, which later enabled the company to integrate this technology into hearing instruments, eventually miniaturizing it. This was also the beginning of the company’s focus on customers’ individual needs as the Esha-Phonophor was offered in various models and styles for different preferences – a story of success and satisfaction that lasts until today.

1987
Telos, Siemens launch the first remote control in the world of hearing technology.

You can find further information about our hearing instruments in the chapter “Individual solutions” or on the Internet at www.siemens.com/hearing.
Prepared for any hearing situation.

Every good hearing instrument offers certain basic features. But optional features can improve hearing in individual situations to fit your specific needs, making life easier.

Siemens offer many helpful features for better hearing, improved sound comfort and individual preferences — as illustrated in the everyday examples that follow.
Start the day right.

For many of us, the day begins with a conversation over breakfast; maybe we make a quick phone call before heading out for the day. Even in these simple listening situations, hearing instruments can ensure that we catch every little nuance.

- **Directional microphones**
  A directional microphone focuses on sounds that originate in front of you, reducing noises from other directions, helping you to focus on your conversation partner.

- **Feedback management**
  Feedback management describes the process of suppressing feedback whistling within milliseconds. The latest feedback cancellation system is now more effective than ever. So you can forget about that irritating whistling sound once and for all.

- **Telecoil**
  The Telecoil, also called T-coil, automatically detects the magnetic signals from devices like landline phones and inductive transmission systems, e.g. in theaters and cinemas, and transmits them directly to your hearing instruments.
Each day is full of interesting conversations in the most diverse environments. Sometimes with many different dialog partners, like in a meeting. Other times, you cannot turn to face the person you’re talking to, such as when you are driving. The right features ensure that you never miss a thing.

- **Multi-channel adaptive microphone**
  The multi-channel adaptive microphone can follow and fade out multiple moving sources of background noise – making sure you’re well-equipped for meetings or gatherings.

- **Remote control option**
  Discreetly switch settings or programs and adjust the volume by using a remote control: The sleek, easy-to-use easyPocket™, convenient miniTek™ Remote App or the discreet ePen™ – which won the renowned “iF” and “reddot” design awards.

- **SpeechFocus**
  With SpeechFocus, you can hear speech well in the presence of background noise, even when it comes from behind you or from the side. This is ideal when you’re driving or cannot look at the person you are speaking to.

- **Automatic adaptive microphone**
  In noisy situations, the microphone switches to focus on speech in front of you, reducing the intensity of noise around you. Adaptive microphones can follow and reduce sources of noise as they move – for example, if a truck drives by the window during a conversation or conference – making it much easier to listen in noise.
Making the most of midday.

The sounds we experience every day enliven and enrich our lives, but sometimes all these impressions can be overwhelming. The clatter of dishes at a restaurant, the rustle of paper while at the doctor’s office, the person crinkling a bag of chips when we watch a matinee: Wouldn’t it be ideal if we could focus on only the sounds we want to hear? The right features can act as a filter – so you can concentrate on what’s really important.

- **Speech and noise management**
  Speech and noise management supports the directional microphone system and reduces the effort of speech understanding in noisy situations. Furthermore, it also makes listening in noisy situations more comfortable by dampening the general noise level.

- **SoundSmoothing**
  SoundSmoothing™ reduces sudden jarring noises like the sounds of clinking dishes, crinkling newspapers or heels on hard flooring.

- **Directional speech enhancement**
  Directional speech enhancement takes speech and noise management one step further and offers additional sound attenuation, filtering out ambient noise even more effectively.

- **Frequency compression**
  If your hearing loss is of a certain configuration, frequency compression compresses and shifts high-pitched sounds that you would otherwise be unable to hear to a lower range where residual hearing is better. This means you can still take part in the conversation, even in noisy locations like busy cafés.
Window shopping in town can be especially challenging when you’re constantly exposed to changing situations and sounds coming from every direction. It’s good to know that you can rely on your hearing instruments. And a short conversation on your cell phone or listening to your favorite song is easy to do – even in the hustle and bustle.

**Learning options**

With this feature, hearing instruments can “learn” how you like to hear in different situations within just a few short weeks. The result: Intuitive hearing instruments that automatically adjust themselves to suit your listening preferences, eliminating the need for you to manually change the volume after the learning period. Siemens offer learning with various levels of sophistication depending on the hearing instruments you choose.

**Bluetooth compatibility**

Bluetooth connections make an impromptu cell phone call simple and easier to hear. With accessories like the Tek™, miniTek or VoiceLink™, your hearing instruments can be wirelessly connected to your cell phone or other external audio and entertainment devices, receiving true stereo signals directly into both hearing instruments.

**TruEar**

The TruEar™ feature simulates the function of the outer ear, helping you to localize sound sources from the front and back. This can improve your understanding in bustling environments and it refines your orientation, keeping you safe as you navigate busy streets with lots of traffic.
Afternoon adventures.

Longing for some fresh air? Whether you’re simply taking a stroll or intensely involved in extreme sports, there are features that improve your orientation with refined directional hearing and hearing instruments that are equipped to handle wind and water.

- **e2e wireless 2.0**
  
e2e wireless™ 2.0 synchronizes left and right hearing instruments, enabling better directional hearing. This is ideal for better orientation, for example, when you cross the street while jogging.

- **Water-/Dustproof (IP68-rated*)**
  
If you’re looking for hearing instruments that can take a beating, Aquaris™ is the waterproof, sweat- and dust-resistant solution. It is the first truly waterproof hearing instrument from Siemens with a fully protected housing and is waterproof to a depth of one meter.

- **eWindScreen**
  
eWindScreen™ helps you to hear better when you’re outdoors by detecting and selectively reducing wind noise — increasing comfort and making listening comprehension a breeze.

* Ingress Protection Rating 68:
  - IPX8 Ingress Protection Rating for complete and continuous immersion in water
  - IP6X Ingress Protection Rating for full dust protection for uncompromising quality and safety
All’s well that ends well.

The right options make spending a quiet evening at home the ideal end to a busy day – maybe while listening to music – because, with the right feature, you can listen to your favorite songs to the fullest. And lying back with a good book or magazine becomes a true luxury with hearing instruments that can reduce the annoying ringing of tinnitus.

- **Tinnitus noiser**
  If you are suffering from tinnitus, the optional tinnitus noiser function can help you relax and read with full concentration by reducing the effects of tinnitus.

- **SoundBrilliance**
  SoundBrilliance™ provides crystal clear sound at high frequencies so that you can enjoy every note of your favorite song.

- **Rechargeability**
  Siemens Pure™ and Motion™ hearing instruments are rechargeable, so there is no need to constantly change batteries. The eCharger accessory is easy to use and sustainable.

- **Extended bandwidth**
  When your hearing loss is mild or moderate, the extra bandwidth offered by the latest BestSound Technology allows you to hear ultra-high frequencies better. So when your favorite opera diva gives her best, you will be able to appreciate the performance.
Help from your Hearing Care Professional.

If you’re wondering which features are right for you, a conversation with your Hearing Care Professional can help. With their expertise, they can offer you detailed advice and help you choose the right solution for your individual needs.

To help you decide which features are important to you, we have put together a checklist. Simply check the features that interest you.

You can use this checklist to prepare yourself for a conversation with your Hearing Care Professional.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Page</th>
<th>Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directional microphones, page 36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feedback management, page 36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telecoil, page 36</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-channel adaptive microphone, page 39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remote control option, page 39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SpeechFocus, page 39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Automatic adaptive microphones, page 39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech and noise management, page 41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SoundSmoothing, page 41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directional speech enhancement, page 41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency compression, page 41</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learning options, page 42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bluetooth compatibility, page 42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TruEar, page 42</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e2e wireless 2.0, page 44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water-/Dustproof, page 44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>eWindScreen, page 44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tinnitus noiser, page 47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SoundBrilliance, page 47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rechargeability, page 47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended bandwidth, page 47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Solutions for individuals.

Siemens hearing instruments.

No two people’s hearing needs or wishes are the same. Some wearers want as discreet a solution as possible, whereas others attach great importance to ease of use. The one thing they all have in common is the desire for better hearing, so hearing instruments need to deliver both from a technology perspective and in their design.

This chapter will introduce you to Siemens’ comprehensive range of hearing instruments. Read on to find a solution that fits your individual needs.
Optimum solutions for individual demands.

Siemens stand for innovation in both hearing system technology and design. Together with researchers of the University of Oldenburg, our experts won the “Deutscher Zukunftspreis 2012” (German Future Award) for developing one of the many innovations we use: The binaural hearing system. Included in almost every model, this technology provides wearers with an accurate audio “image” of their listening environment by coordinating left and right hearing instruments, thus making it easier for our customers to navigate their world.

Thanks to our more than 130 years of experience in audiology, we understand exactly our customers’ needs and wishes. Therefore, we offer a wide range of models in three construction types, various performance levels and equipment variants. Whatever you require in hearing instruments, we have the right solution for you.

- **ITE** (In-the-ear)
- **BTE** (Behind-the-ear)
- **RIC** (Receiver-in-canal)

<table>
<thead>
<tr>
<th>Model</th>
<th>Performance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intuis</td>
<td>Suitable for mild to moderate hearing impairments</td>
</tr>
<tr>
<td>Nitro</td>
<td>Suitable for mild to moderately severe hearing impairments</td>
</tr>
<tr>
<td>Insio</td>
<td>Suitable for mild to profound hearing impairments</td>
</tr>
<tr>
<td>Orion</td>
<td>Suitable for moderately severe to profound hearing impairments</td>
</tr>
<tr>
<td>Aquaris</td>
<td></td>
</tr>
<tr>
<td>Pure Carat</td>
<td></td>
</tr>
<tr>
<td>Pure</td>
<td></td>
</tr>
<tr>
<td>Sirion</td>
<td></td>
</tr>
<tr>
<td>Insio</td>
<td></td>
</tr>
<tr>
<td>Intuis</td>
<td></td>
</tr>
<tr>
<td>Lotus</td>
<td></td>
</tr>
<tr>
<td>Insio</td>
<td></td>
</tr>
<tr>
<td>Nitro</td>
<td></td>
</tr>
<tr>
<td>Sirion</td>
<td></td>
</tr>
<tr>
<td>Intuis</td>
<td></td>
</tr>
<tr>
<td>Lotus</td>
<td></td>
</tr>
<tr>
<td>Insio</td>
<td></td>
</tr>
<tr>
<td>Nitro</td>
<td></td>
</tr>
<tr>
<td>Sirion</td>
<td></td>
</tr>
</tbody>
</table>

By using our products, you can trust in their reliability and effectiveness.
Insio.

Live your individuality.

Insio™ is Siemens’ ultra-tiny, ultra-comfortable ITE solution. Equipped with the latest version of BestSound Technology, it offers both a highly individualized hearing experience and the new Optivent option, which achieves a perfect balance between wearing comfort and feedback stability to produce a new level of natural sound quality.

**Style:**
- ITE
- ITC
- CIC
- IIC

**Feature:**
- Tinnitus noiser

**Hearing loss:**
- Mild to moderately severe
Ace.  

Ace™ redefines discretion as Siemens’ smallest, virtually invisible RIC solution. Offering a personalized tinnitus function, flexible fitting range for progressive hearing losses, and inconspicuous reliable functionality, it is the ideal immediate and long-term solution. Featuring the latest technology, Ace offers unprecedented clarity.

Ace is available in many different colors.
**Pure.**

Consummate technology and design.

Pure offers exceptional hearing quality in miniature. As the earpiece sits directly in the ear canal, the instruments are particularly inconspicuous. Fitted with the latest hearing system technology, Pure automatically adapts to the respective hearing situation, and has personalized tinnitus functions and wireless connectivity for a customized hearing experience based on your needs.

Also suitable for children and young adults.

Pure is available in many different colors.

**Pure Carat.**

A true all-round talent.

Pure Carat™ is among the smallest hearing instruments from Siemens. However, it’s packed with extraordinary power and amazing possibilities. Meet Pure Carat and discover the great versatility of this model. It also has special tinnitus functions.

Pure Carat is available in many different colors.
Siemens Life.
Hearing comfort meets elegance.

Motion.
Superb sound meets outstanding comfort.

Siemens Life™ is the smallest conventional BTE instrument in our portfolio, combining accomplished design with sophisticated Siemens hearing system technology. Equipped with soft, flexible LifeTubes, it is suitable for all wearers and a great discreet and simple solution for those looking for an ergonomic, comfortable fit. It also has enhanced tinnitus functions.

This line of versatile BTEs offers numerous benefits and four different models, making it an extremely flexible solution. Motion can fit any ear, any age group and any hearing impairment, and is fully-featured, hassle-free and reliable. With a high degree of wearing and handling comfort, it is an ideal solution for young to senior wearers.

Siemens Life is available in many different colors and patterns for your own personal style.

Motion comes in a stunning choice of colors to appeal to all ages.

Also suitable for babies, children and young adults.
Aquaris.
The waterproof hearing instrument.

Aquaris is the most robust and truly waterproof, IP68-rated hearing instrument available. Thanks to its special housing, it is suitable for continuous immersion in water and also efficiently repels perspiration and dust. Aquaris offers maximum audio quality, allowing wearers to pursue every aspect of life to the fullest. It also includes a personalized tinnitus function. Aquaris was distinguished as one of 15 top technical products to receive a “Boomer Tech Product of the Year 2012” award.

Aquaris is available in five different colors.

Nitro.
Super power. Super connectivity.

Nitro™ is the super power solution for people with moderately severe to profound hearing loss that supports the wearer in all areas of life. Above and beyond this high level of amplification, Nitro offers the unique combination of super power, wireless connectivity and a high degree of wearing comfort.

Nitro is available in many different colors.
**Orion.**
Great comfort meets superior connectivity.

With its broad variety of BTE and ITE models, Orion™ can fit every ear and every listening situation. With its combination of dependable audiological performance for improved speech understanding, wireless connectivity and a high level of wearing comfort, Orion provides a fine listening experience for every ear.

Orion is available in many different colors.

**Sirion.**
Ready and robust for nearly any situation.

Sirion™ is a trustworthy companion: Its BTE and ITE hearing instruments offer improved speech understanding – even in challenging listening situations. And its BTE models come with a solid casing that securely protects the latest technology inside. Sirion is a reliable solution for every day and every ear.

Sirion is available in many different colors.
Intuis™ makes hearing simple on three levels: It is straightforward, comfortable and reliable. All of the BTE and custom models offer hassle-free handling, easy-to-wear design and proven technology for a great hearing experience.

Lotus™ combines proven technology with ease of use and good audio quality – at good value for money. The housing is robust and particularly reliable in everyday use.
Tek and miniTek wirelessly connect our hearing instruments to many different devices. Sound from Bluetooth phones, mp3 players, television and other audio sources is streamed directly to them.

Siemens offer a range of practical accessories to supplement your hearing instruments and ensure greater comfort and discretion.

**Accessories for every eventuality.**

**ePen and easyPocket**
These remote controls for convenient and discreet hearing instrument adjustments are ergonomic, easy to use and have a stylish design.

**miniTek Remote App**
With the miniTek Remote App which is available in the Google Play* Store, Android* smartphone users can now remotely control their miniTek for added convenience.

*Google Play and Android are trademarks of Google Inc.

**VoiceLink**
The VoiceLink™ companion microphone wirelessly connects to miniTek and, when given to a speaker, it directly streams their voice to the hearing instruments – offering additional support for a wide range of difficult listening situations.

**eCharger**
Powers and protects hearing instruments. Instruments charge and dry conveniently overnight.

**Car adapter**
The car adapter can be used to charge the Tek and miniTek. Together with the eCharger, it can power and dehumidify select rechargeable Siemens hearing instruments in the car.
Getting to know your new hearing instruments.

Once you have chosen Siemens hearing instruments, they will be reliable partners to accompany you through every day. However, like everything new, it will take you a little while to become familiar with them and to adjust.

Take your time! This chapter will help you make the most out of the adjustment period. Even if you initially find it hard to get used to hearing instruments, you will quickly come to appreciate the advantages and greater quality of life they offer.
Practical tips

The ticking of a clock, your car’s engine, a dripping tap: Your hearing instruments will enable you to hear many sounds again that you might not have been aware of for a very long time.

Although this can initially seem strange, irritating or even downright unpleasant, it is completely normal. Hearing loss is generally a long, gradual process and the brain, in turn, has to readjust to the many new sounds you are experiencing. At first, you might perceive certain sounds as being loud: The fridge sounds like a freight train or flushing the toilet like a waterfall. Don’t worry; this perception of sound is quite normal in the initial adjustment phase. After a while, the brain will learn to tune out the sounds you don’t want to hear.

At the same time, you will rediscover many pleasant sounds, such as the rushing of a stream, birdsong or the rustling of autumn leaves. Lively discussions will become a pleasure once again and you’ll be able to enjoy your favorite music in full. A whole new world of sounds will open up for you …
Every wearer has a different experience of adjusting to hearing instruments, however, a few useful tips will get you off to the right start.

The most important thing is to have the right attitude. Be patient with yourself and think positively. Make a conscious effort to enjoy the various sounds and noises that you can hear again. It helps to have realistic expectations. Unlike a pair of glasses that provides an immediate remedy, you have to relearn how to hear correctly. The adjustment period can take anywhere from a few days to several weeks.

Before long, you will be able to hear and understand much more in many different situations. You will progress quickly if you wear your hearing instruments all of the time and follow these recommendations:

- Start to use your hearing instruments first thing in the morning.
- Wear them all day until you go to bed at night.
- Do not take them off, even if you think you do not need them, for example, when reading in quiet. In this way, you will also hear the doorbell or telephone ring, and also learn how it is to hear with hearing instruments in quiet.
- Keep a hearing instrument diary in which you write down your positive and negative experiences.
- Listen carefully to the volume and quality of noises in different hearing situations.
- Tell your Hearing Care Professional about your experiences at your next appointment.
- Train your hearing by exposing yourself to various hearing situations.
- Especially after longer periods of living with hearing loss, dedicated hearing training is recommended – with a Hearing Care Professional or at home.
- For at-home training, use the Siemens eARena™ interactive audio training on DVD.

...even when using hearing instruments.

Practice makes perfect...
Hear and experience more and live life to the fullest.

After the initial period with your new hearing instruments, you will realize just how much your life has changed and how much more you get out of it.

Being able to hear well again has many positive effects. Studies show that the large majority of hearing instrument wearers are very or extremely satisfied with their hearing instruments. Experienced users report that their social contacts, as well as their physical and mental well-being, have improved markedly. They feel fitter and much more ready to take on new things. (1)

Be open to your new hearing experiences. It will improve your quality of life.

Source:
The right way to use your hearing instruments.

Siemens hearing instruments are so robust that they will function reliably for years. It is, however, important that you take care of your instruments and observe a few basic rules that will soon become routine.

Practical tips on maintenance and use:

- Hearing instruments are highly sophisticated technical masterpieces. For hygiene reasons and to maintain their functionality, clean your hearing instruments daily.

- Clean your Behind-the-ear or In-the-ear hearing instruments according to the instructions, using only the recommended cleaning products. For further information contact your Hearing Care Professional.

- Dry your hearing instruments overnight. Please use the recommended drying products.

- After longer periods of non-use, store your hearing instruments with open battery compartment and batteries removed in an electrical drying system in order to avoid the adverse effects of moisture.

- Take your instruments to your Hearing Care Professional at regular intervals for a more thorough professional cleaning.

- Remember to have your replacement batteries on you at all times – just in case the battery expires while you are out and about.
Family and friends can make a difference to hearing success.

The right support makes everything easier! Family and the social environment can help to make the adjustment period a success.

Encourage the user to wear the instruments on a regular basis.

You may notice your friend or relative participating more in the conversation, or attending more social events since they have been wearing hearing instruments. Tell them you've noticed and give them frequent positive feedback. Even if your friend or relative is wearing hearing instruments, remember the rules for communicating with the hearing impaired mentioned on page 13.

Last but not least: Remind him or her to go to the Hearing Care Professional for fine tuning of the hearing instruments.
Service and follow-up visits

Whether service or follow-up visits, your Hearing Care Professional is there for you and will ensure that your hearing instruments are finely tuned and optimized for your needs.

Your Hearing Care Professional also checks that the instruments sit correctly and checks your progress with the new hearing instruments. They will replace worn parts and, if necessary, carry out any servicing and repairs.

For more information about how Siemens hearing instruments can improve your quality of life, talk to a Hearing Care Professional or visit our homepage: www.siemens.com/hearing
About tinnitus

Getting the better of tinnitus.

Our world is alive with sound. Laughter, unforgettable melodies, waves breaking on the shore – all these sounds enrich our lives and are literally music to our ears, lifting our mood. However, what happens when one sound suddenly takes control?
When suddenly tinnitus calls the tune...

Tinnitus is noise that originates from within the ear rather than from the outside environment. This may affect one or both ears.

A tinnitus diagnosis catches many people unawares. Unfortunately, some patients often learn from their doctors that their complaint is incurable. This kind of information makes patients feel isolated and bereft of support, convinced that no-one can understand what they are going through. Above and beyond that, in many cases tinnitus is accompanied by a hearing impairment. Because tinnitus has many triggers, for so far we have no specific medication or patent cure for all types of tinnitus. Despite that, even for chronic tinnitus, there are ways to find relief and take control of the noise in your ears. This chapter aims to help patients and their loved ones come to terms with a tinnitus diagnosis, and to inform them of the individual possibilities that are available to actively address the problem. It is about learning how to live with tinnitus and how to control it, instead of letting it control you.

Source:
Tinnitus comes in many forms.

The term tinnitus comes from the Latin verb “tinnire”, which means “to ring.” The noise differs from one person to the next in nature, pitch and volume. Many describe the noise as a whistling, hissing, roaring or ringing in the ear.

Subjective and objective tinnitus:

Tinnitus can be classified into two categories: Subjective and objective.

- The more rarely encountered objective tinnitus is also perceptible to another person, and can be directly measured by a Hearing Care Professional. Generally, it can be treated medically.
- Subjective tinnitus, on the other hand, is only audible to the sufferer. The tinnitus is internalized – with no direct external noise source. Although this type of tinnitus cannot be measured, it is by no means a figment of the imagination. It is a very real affliction for people strongly affected by tinnitus. However, there are ways of coping with this condition and alleviating the impact of subjective tinnitus.

If this type of noise occurs only temporarily and soon disappears again, for instance after a loud concert, it is called acute tinnitus. For millions of people, though, the noises are permanent, thus developing into chronic tinnitus. The large majority of these individuals perceive the noises as a source of only minor irritation or no irritation at all. Around one in five, on the other hand, describes the experience as unpleasant to unbearable. A significant number of people are so affected by tinnitus that it impairs their quality of life.
What sets tinnitus off, and how can it be identified?

Tinnitus is identifiable:
Brain scans indicate increased
metabolic activity in the
region of the left auditory
cortex in tinnitus patients.

Source:

Tinnitus can occur within the auditory system or externally. There are many different factors that can set off tinnitus, so each case requires an individual solution.

Tinnitus is identifiable:
Brain scans indicate increased
metabolic activity in the
region of the left auditory
cortex in tinnitus patients.

Source:

Tinnitus diagnosis
Tinnitus is very individually perceived by sufferers. So before proposing a certain therapy, an exact diagnosis is essential. It must first be established whether the case can be medically treated or not. To do this, your doctors may conduct ENT, dental, orthodontic and orthopedic examinations.

A hearing test can reveal whether a hearing impairment is also involved. The pitch and volume of the tinnitus can also be established by special diagnostic tests.

Recently developed imaging processes show that tinnitus is not exclusively related to the ear, but that certain areas of the brain may also be involved in the perception of tinnitus.

Aside from damage to the auditory system, tinnitus can also be triggered by jaw joint dysfunction, e.g. teeth grinding, and chronic neck muscle strain.

Stress is the single most commonly quoted trigger of tinnitus. However, so far there is no scientific basis for assuming a connection between stress and tinnitus. But tinnitus can cause stress. Noises — even those in the head — are perceived more acutely when the person is tense than when in a relaxed state of mind.

Some medications — like, for instance, painkillers, or medicines that treat rheumatism and malaria — can set off tinnitus. Once medication is stopped, the noises usually disappear again, too. Chemotherapy medication used for treating cancer and, in rare cases, antibiotics, may however irreparably damage the inner ear, resulting in permanent tinnitus.

Source:
(1) Jane L. Weissman, MD Barry E. Hirsch, MD: Imaging of Tinnitus. A Review From the Department of Radiology and Otolaryngology, Oregon Health Sciences University, 3181 SW Sam Jackson Park Rd, Mail Code CR-135, Portland, OR 97201-3098 (J.L.W.), and the Department of Otolaryngology, University of Pittsburgh Medical Center, Pa (B.E.H.). 2000
Focus on tinnitus

Keeping the symptom under control.

Why can’t you get used to tinnitus?

The pernicious thing about tinnitus is that you listen for it against your will. When tinnitus occurs for the first time, it is quickly perceived as a nuisance, the unusual noise draws attention to itself. The ‘enemy in your ear’ is an apt description – because it is truly the beginning of a vicious circle. Initially, you might try to rest and in doing so, shun social contact. However, this withdrawal also means that different auditory experiences, social contact and other forms of distraction are reduced, with the result being that the tinnitus attracts more of the person’s attention, and gradually takes over. Or the noise might keep you awake at night, resulting in lack of sleep and depression. And this is the vicious circle that needs to be stopped. You have to push tinnitus out of the limelight – and win back control over it.

The extent to which tinnitus affects a person’s life depends on various factors: On the volume, frequency, duration of the noise, and on the person’s individual perception of it. Tinnitus itself is not regarded as an illness but as a symptom, similar to pain. When treating an illness, we try to cure the cause. When treating symptoms, we try to provide relief. It’s mainly a question of controlling the noise in the ear. Even if tinnitus isn’t an illness in itself, it can assume the proportions of an illness. When excessive, the strain caused by tinnitus may cause sleeping problems, fear and depression.

FAQs – patients’ frequently asked questions

Do I have to worry about sudden hearing loss if I’m affected by tinnitus?

Although it may occur after sudden hearing loss, tinnitus doesn’t cause it.

Can tinnitus cause deafness?

Tinnitus often accompanies impaired hearing, but does not cause it. People who hear well otherwise can also suffer from tinnitus.

Do I have to assume that my tinnitus will get worse over time?

That depends on how you manage tinnitus. Although tinnitus has a physical, e.g. neurophysiological, trigger, the extent to which you suffer from it greatly depends on how your brain deals with the experience. A person’s perception often depends on their frame of mind.

Is there a cure for tinnitus?

At the moment, research is still going on. Unfortunately, one single treatment for everyone affected by tinnitus hasn’t been found yet. Nevertheless, in some cases it is possible to treat a triggering stimulation of tinnitus. If your tinnitus is, for example, an attendant symptom of an ear infection, it might be helpful to take antibiotics in order to relieve your tinnitus. Although a “one for all” treatment hasn’t been found yet, there are many treatment strategies for tinnitus. One of the most successful ones is “habituation”. It enables you to reach a relieved state of mind in which you are not too responsive to your tinnitus, thus avoiding negative emotional reactions to it.
Learning to cope with tinnitus...

Even if no specific trigger is determined, tinnitus can be treated. There are many possibilities to help patients find ways to cope with their condition. This means changing habits and attitudes so that tinnitus no longer controls your everyday life. The term tinnitus management covers various ways of adopting a new approach to tinnitus.

So-called cognitive-behavioral tinnitus training, for instance, is very promising. Your personal mindset and feelings play a decisive role in this method. Training sessions with varied content promote self-help. Training focuses on targeted information, an analysis of the person’s behavior, practical exercises and positive experiences. Cognitive-behavioral tinnitus training focuses on the following aspects:

Learning more
- Gather detailed information about tinnitus from your doctor, expert forums, and blogs
- Try joining a tinnitus support group to learn from others and talk about your own experiences
- Observe how your emotions and stress affect your tinnitus
- Learn what works for you: No one else experiences tinnitus exactly the way you do, so you may find relief in very individual ways

Changing habits
- Learning relaxation methods
- Practicing imaginary journeys to elicit positive emotions
- Transforming negative thoughts and attitudes into a helpful “I can beat tinnitus” mindset
- Weaning off habits that encourage tinnitus, e.g. withdrawing from your circle of friends, avoiding activities
- Be prepared if tinnitus should come to the forefront again, e.g. with accustoming techniques

Relearning hearing
- Acoustic stimulation and training for use of hearing instruments, noisers, combined devices or other audio sources to deflect attention away from tinnitus
Modern technology can help subdue tinnitus. The main principle is acoustic stimulation. This means allowing your brain to hear and, therefore, focus on external sound rather than tinnitus.

Noisers
Noisers are for people without hearing loss. They look like hearing instruments but do not amplify the sounds in the environment. They generate a soft murmur that is mixed in with the tinnitus to distract the patient from the tinnitus. Noisers generally offer considerable relief from tinnitus.

Hearing instruments
In most cases, wearing hearing instruments both improves hearing and alleviates tinnitus. The reason being that if you can hear better, you can also ignore tinnitus better. Hearing instruments pick up ambient sound over a microphone and amplify it before passing it onto the ear. This enables wearers to better focus on the noises, sounds and tones around them. The rustle of leaves in the forest, friendly conversation, or beautiful music restore the emphasis on pleasant hearing impressions and narrow the scope for tinnitus. In many cases, users scarcely or don’t hear the tinnitus at all as soon as the hearing instruments are switched on.

Tinnitus combined devices
Some hearing instruments also feature a noiser function. What is the benefit of this combination? As hearing instruments can only amplify noises actually present around us, they are of little use as tinnitus management tools in very quiet hearing environments. This is when the noiser function can be helpful. In these situations, the noiser can generate a soft noise to distract the patient from the tinnitus. In modern hearing instruments, like those from Siemens, various hearing programs can be selected at the touch of a button: Purely hearing instrument function, purely noiser function, or a combination of the two. Your Hearing Care Professional will be happy to tell you more.

The tinnitus function in detail:
- Separate noiser signal generator
- Four pre-programmed noise types: White noise, pink noise, speech noise and high tone noise
- Individual fine-tuning of noise program for up to 20 bands
- Three operating modes: Microphone signal only, tinnitus noiser function only, mixed mode

Suitable for mild to moderate hearing impairments
Suitable for mild to moderately severe hearing impairments
Suitable for mild to profound hearing impairments
Suitable for moderately severe to profound hearing impairments
Tips for living with tinnitus.

So take heart – you can beat tinnitus. A positive attitude is very helpful. Relaxation techniques, an active social life, sports and hobbies can assist you in taking control of your life – even with tinnitus. On the following page, we’ve summarized a few practical tips, recently developed by Siemens together with ENT doctors, psychologists and acousticians.

- **Relearning how you hear**
  Listen consciously to the world around you. Enjoy your favorite music or simply the sound of birds in the trees. Everything that provides your ears with varied sound impressions deflects attention away from tinnitus.

- **Tips for recuperative sleep**
  The more active you are during the day, the easier it is to sleep at night. If you know that certain foods or drinks make it hard to sleep, avoid them in the evening. Neither alcohol nor sleeping pills guarantee restful sleep – a warm bath before bed is a better option.

- **Get active, stay on the move**
  Relish life with family and friends, and organize your private life to include plenty of activity and variety. Keep an open mind. Everything that increases your personal sense of well-being and enjoyment of life decreases tinnitus’ hold over it.

- **Avoid silence**
  Give yourself a break now and again. However, avoid complete silence, which is an open invitation for tinnitus to take hold. Opt for enjoyable sources of sound stimulus, an audio book or relaxing music.

- **Promote your physical fitness**
  People who participate in sports are healthier and this also applies to people with tinnitus. Everything you enjoy doing and that tests your physical fitness is good for you. Even if your tinnitus seems louder when doing sports, it is no cause for concern.

- **Learn to relax effectively**
  Precisely because tinnitus causes tension, it is important to learn relaxation methods and use them regularly. Some recommended relaxation methods are Feldenkrais, yoga, tai chi, and qi gong.
Every parent wants their children to grow up healthy and happy – to discover the world with all their senses and find their way through life successfully. The foundation for acquiring speech and communication skills is laid within the first few months and years of life and requires a well-developed sense of hearing.
The importance of good hearing – right from the start

Listening and learning to speak go hand in hand.

From a baby’s first gurgles to their first “mama,” all the way up to high school graduation: Their speech can only be as good as their ability to hear. So it is important that parents are alert for the very first sign of a possible hearing impairment.

If suspicions are confirmed, parents will have many questions: Will my child learn to speak? Will they make friends? How will they perform at school? Good hearing is vital – not only for development, but also for communication and social skills that children develop over the years. It’s good to know that growing up with hearing loss is much easier with today’s technology and innovations. Thanks to advanced diagnostic and therapy options, children and their families can lead rich, fulfilling lives. We would like to offer our support along the way, from diagnosis of the hearing impairment to finding the right hearing instruments.

Most important of all though, is that you are there for your child. Be their advocate and their cheerleader. When they are old enough, explain in understandable terms what hearing loss is; and talk about what you can do about it as a family. Confidently overcoming the supposed problem of hearing loss can turn out to be a strengthening, positive experience for your family and your child.
Good hearing for a good start in life.

Two or three of every thousand babies are born with a hearing impairment. During childhood, hearing loss may be caused by infection or accidents. To treat it properly, the nature and severity of the hearing loss must be professionally diagnosed. While some forms of hearing loss may be treated medically or surgically, others require amplification and therapy.

Some signs are obvious: Your baby doesn’t turn his head, even at the sound of a loud noise. Or your child often doesn’t respond when addressed, as if he or she hadn’t noticed. When children can’t understand what others are saying and are unable to communicate in an age-appropriate manner, they often become sad, angry and frustrated, or shy and withdrawn, or develop other behavioral problems.

So it is important to quickly rule out a hearing impairment if you observe these behaviors. ENT doctors and pediatric audiologists conduct accurate hearing examinations with various test methods. No child is too young for a thorough hearing test – in many cases, it only takes a few seconds and is completely painless.

The earlier hearing loss is diagnosed and treated, the better for the child’s development. Once a permanent hearing impairment is diagnosed, children should receive amplification, such as via hearing instruments – as soon as possible. It is a proven fact (1) that if hearing loss is established at an early stage, and the child begins to wear hearing instruments, they can fully develop their linguistic and social skills. And it’s worth thinking about: Wearing hearing instruments will not isolate your child, but untreated hearing loss will.

Tips for parents of children with impaired hearing:

• Act quickly so your child doesn’t miss out on important stages of development.
• Starting in nursery school, allow your child to have a say in choosing their hearing instruments – then they will accept wearing them more readily.
• Make sure that your child has two hearing instruments if hearing loss occurs in both ears – even if one ear is affected to a much greater extent.
• Talk to other parents in the same situation – seek advice and encouragement. You aren’t alone!

Source:

Growing, wondering, discovering the world – babies and toddlers.

The first years of life are when we learn the most. Even if babies can’t speak yet, they are constantly collecting information through their ears. They recognize familiar voices of parents and close relatives. And, long before they grasp the meaning of words, they can discern whether someone is talking to them lovingly, sadly or sternly.

Because babies and toddlers cannot fully express themselves yet, fitting very small children with hearing instruments is one of the greatest challenges for audiologists. Here, knowledge and experience are just as important as advanced technology.

<table>
<thead>
<tr>
<th>Special safety features for the very young:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Small earhook: Ensures a secure and comfortable hold, even when playing and romping around. Although easy to attach, it is very difficult for young children to loosen by themselves.</td>
</tr>
<tr>
<td>• Optional child-safe battery door lock: Eliminates the risk of children swallowing batteries. The lock can only be opened with a small screwdriver.</td>
</tr>
<tr>
<td>• Programmable key lock to deactivate the onboard controls.</td>
</tr>
</tbody>
</table>

Hearing instruments for small children must be adjustable so that they can grow with the child and adapt to any changes in hearing ability. Programmable hearing instruments do this. They can be preset for various hearing situations and can be flexibly configured.
Ready to learn – pre-school and elementary school children.

A lot is demanded of your child’s hearing when they start school, especially in noisy environments and classrooms where it can be difficult for children with impaired hearing to concentrate on one voice. With suitable hearing instruments, your child can not only follow what is being said, but can also actively contribute to class work and develop their full potential.

Once children go to school, sports and friends become more important. So take your child’s activities into account when choosing a hearing device. If your child loves water or being outside, no matter the weather, then a waterproof device is a good choice. Hearing instruments in their favorite color or ones that can be decorated with stickers are usually high on children’s wish lists.

Make sure that all teachers and caregivers are aware of your child’s hearing needs. You should also show them how to operate the hearing system and give the school a supply of spare batteries.

Practical hearing instrument features for kids:

- Audio shoe: Allows children to use an FM system at home or school.
- FM system: Enhances hearing in noisy environments, e.g. in classrooms. A microphone worn by the speaker, e.g. the teacher, transmits their voice directly to the receiver in the hearing instruments over FM waves.
Leaving the nest – teenagers and young adults.

The teenage years are a time marked by major changes. A teen’s interest in the world grows, friends become more important, as do all communication channels – and music. For self-conscious teenagers, appearances are crucial and expectations concerning the design of hearing instruments rise accordingly.

Many teenagers confidently highlight their individuality with their hearing instruments. Others prefer discreet options with subdued colors. But none of them wants to miss out on the high-end technology. The buzz phrase here is wireless connectivity: Because it enables teens to connect their hearing instruments to all the must-have technical gadgets they find so important.

Teenagers should choose their own hearing instruments. It’s the best guarantee that they will enjoy wearing them with confidence. As parents, you can gradually relinquish responsibility for the hearing instruments to your teenager, from daily care to regular trips to the Hearing Care Professional for maintenance.

Features popular with teenagers:

- Wireless connectivity: Enables use of streaming accessories so that Bluetooth-ready phones, TVs, mp3 players and wireless microphones such as VoiceLink can directly stream sound to the hearing instruments.
- Apps: For discreet and easy hearing instrument control per smartphone.
- Rechargeable battery: Guarantees particularly long operation – and is more practical than having to constantly change tiny batteries.
Once children are on the go, they forget everything around them. And teenagers don’t want to focus on their hearing instruments all the time, either. So it is crucial to have a good hearing solution that satisfies all the needs and requirements of the wearer, but is otherwise undemanding and easy to maintain. This leaves them free to focus on the world around them.

Never before have there been so many well-engineered hearing solutions as there are today, enabling people with hearing loss to live life to the fullest. Siemens have been developing hearing instruments for over 130 years – and in recent years has accomplished outstanding technical achievements that help children to hear better.

Children are not little adults. Their hearing abilities are still developing. And their attention usually focuses on anything but their hearing instruments. So hearing systems for children have to meet specific needs: They should grow with the wearer, be programmable and offer flexible configuration. They should have a very secure fit, without being uncomfortable. They must be exceptionally sturdy and resistant to moisture and dirt – and be able to withstand all the rough and tumble of a boisterous childhood. They should also be able to wow teenagers with their design and the technology inside. And the housing should be exchangeable – in case color preferences change. In a word, modern hearing instruments must meet the needs and match the lifestyles of children of all ages. Just like Siemens hearing instruments.
A child’s hearing loss is an important subject for parents – and remains so over the course of many years. Lots of questions will crop up that we cannot cover in this chapter. When this happens, contact your Hearing Care Professional. They will be happy to answer your questions – and help you choose the right hearing instruments for your child.

The most important thing you can do as a parent is to accept your child’s hearing impairment and support them as they find their way. Then later, as adults, they will be their own advocates in handling their hearing loss and hearing instruments confidently as a matter of course – while enjoying their lives to the fullest.

FAQs – parents’ frequently asked questions:

What should I do if I suspect that my child’s hearing is impaired?
Don’t wait; make an appointment with an ENT specialist or pediatrics advisory service right away. If there is no ENT specialist in your area, contact your pediatrician or family doctor who can refer you to a specialist as necessary.

How can I help my child get accustomed to wearing hearing instruments?
Start by having your child wear them for short periods, and extend them gradually. Encourage your child, be very patient and loving – and make wearing hearing instruments a part of your child’s daily routine, just like brushing their teeth.

What do I do if my child doesn’t want to wear hearing instruments?
Check the condition of the devices every evening when your child takes them off. Remove any moisture, dirt or ear wax as instructed in the care manual, and check the battery level.

What kind of care and maintenance do hearing instruments need?
Check the condition of the devices every evening when your child takes them off. Remove any moisture, dirt or ear wax as instructed in the care manual, and check the battery level.

How often should the hearing instruments be checked?
The faster your child grows, the more often it should be checked by a Hearing Care Professional: Every couple of weeks for babies and toddlers, every few months for schoolchildren, and around once or twice a year for teenagers. Contact your Hearing Care Professional immediately if you suspect any problems with the hearing instruments.
The Bluetooth word mark and logos are owned by the Bluetooth SIG, Inc. and any use of such marks by Siemens Audiologische Technik is under license. Other trademarks and trade names are those of their respective owners.

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases and are subject to change without prior notice.

GORE and designs are trademarks of W. L. Gore & Associates.

Global Siemens Healthcare Headquarters
Siemens AG
Healthcare Sector
Henkestrasse 127
91052 Erlangen
Germany
Phone: +49 9131 84-0
www.siemens.com/healthcare

Global Business Unit
Siemens Audiologische Technik GmbH
Gebbertstrasse 125
DE-91058 Erlangen
Germany
Phone: +49 9131 308-0

Legal Manufacturer
Siemens Audiologische Technik GmbH
Gebbertstrasse 125
DE-91058 Erlangen
Germany

Order No. A91SAT-02180-99C2-7600 | Printed in Germany | © 02.2014 Siemens AG

www.siemens.com/hearing