



Cochlear®

Hear now. And always

Raising Confident Teens

Music Rehab for Teens and Parents



Music is powerful and plays an essential role in people’s lives – from birthdays and weddings to listening to our favourite songs. It’s an integral part of pop-culture and is interwoven into the way we connect with one another. Enhancing the environment with music can make it possible for children and teenagers with cochlear implants to benefit from musical activities in respect to speech perception and hearing.

The authors of a review article published in the internationally recognised journal, *Hearing Research*, felt the results were so powerful, they concluded that “the current evidence seems enough to urge speech and music therapists, music teachers, parents, children and adolescents with hearing impairments and/or cochlear implants to start using music for enhancing speech and language skills” [1].

Developing music listening skills is an important part of the hearing journey that can help your child get the most out of their implant. We recommend introducing music into their lives early. That way, once they do reach their teenage years, you have built a strong foundation for music appreciation.

However, it’s important to remember that it’s never too late to introduce music to your child. If your child is a little bit older, you can give them a copy of this guide so they can follow along with the rehab exercises and develop a greater appreciation for music.

Here are some practical tips from researchers to help parents get started on music rehab with children.

Tips for parents



Helping your child tune into music

Infancy to early childhood

1 Introduce music early

Children can benefit from musical activities before their cochlear device is even implanted – the earlier the better as the brain is most adaptable before four years of age^[1].

2 Dance and use body movements in the rhythm of the music

Dancing to music helps children with cochlear implants learn lyrics, get to grips with intonation and improve speech perception^[1]. Try enrolling your child into dance classes to help them learn the rhythm and beat of music, which are both important for the perception of speech.

3 Use your own singing as your main instrument

Your voice will be one of the most (if not the most) familiar to your child. Start by singing songs with your child with no musical accompaniment. The Hearing Research authors say this can help improve speech perception^[1].

4 Get experimental with musical instruments

The Hearing Research review suggests that playing an instrument may be more effective than listening only. So, encourage your child to try different musical instruments. This will expose them to different pitches, timbre and tones.

5 Sing and play the same songs repeatedly

Repetition helps us to remember sounds and what words should sound like. Over the course of the repetitions, the brain makes the sound more and more precise^[1]. Singing the same songs will help your child grasp the tune and meaning of the words.

6 Take turns

Use songs which include turn-taking. Give your child the opportunity to continue the song when you stop singing or sing a short section of a song and have your child repeat it. This allows your child to listen, to produce speech sounds, and to compare your speech with their own.

7 Get the family involved

Involving everyone encourages music around your home, with plenty of repetition and opportunities to listen to and make music. You can also incorporate music into your family routines. For example, have music playing during breakfast or school runs. You can make it fun and schedule Music Mondays and Tamborine Thursdays and dedicate time for focused music listening.

Tips for teens

Music rehab exercises

As your child enters their teen years, it's likely that they will start to explore their interests, develop new friendships and begin establishing their place in the world. Music can be an outlet for self-expression, play a big role in mental wellbeing and is often a foundation upon which social connections with others are built.

Hearing loss can make listening and deriving enjoyment from music a bit more complex and may take some time. Cochlear implants are geared toward improving speech clarity, but there are ways your teenager can improve and optimise their experience with music. Research has shown that focused attention to music is key to improving music perception and appreciation^[2]. We recommend sharing the following tips and music listening exercises with your teenager and encouraging them to dedicate time out of their day to focus on listening to music.

Below are exercises they can do in the comfort of their room or home environment, and some practical tips to help them get started with music rehab.

Practical tips to get started

Be kind to yourself

- 1 Music listening practise can take time and patience to see improvements. So, start slow and take breaks if you need to. Things won't sound great immediately, but many recipients report that music sounds better the more they listen over time.

We also recommend speaking with your hearing healthcare professional. They can help provide guidance on rehab expectations which take your hearing needs and history into consideration.

Choose a quiet place

- 2 When you first start off with music listening exercises, it is important to practise listening to music in a quiet environment. We recommend somewhere like your bedroom where you can close the door, rather than a family living area or the kitchen. It will be easier to focus on the music in a quiet room without echo.



Optimise your technology

- 3** Check that you are using the sound processor program and setting you hear best with before starting. If you are using external speakers to listen to music, set the volume at a moderate level and try not to use built-in laptop speakers – they tend to distort sound which will affect the quality of the music.

If your sound processor technology permits, we recommend directly streaming the music using a compatible* Apple or Android device. Or, if you already have wireless accessories that you use in class, such as a Mini Microphone 2+, you can connect this with your phone, tablet or laptop and listen to music that way.

Practise regularly

- 4** Listening practise should be broken up into short, but frequent sessions. Try doing this for 10 – 15 minutes a day, five days a week. A good idea is to schedule this in before or after you have finished your school homework. The more you devote to music rehab, the better!

Listen closely

- 5** When you focus on the music, your brain tunes into the signal and learns to make more sense out of the lyrics, beats and melodies^[2]. So, remember to pay close attention to the music.

“We made a specific point of listening to music while incorporating it into playing. We danced together, or bashed pans together, or had music playing while relaxing on the floor. Dad can play the guitar with him and he also takes on the singing role, showing Felix that it’s ok to be out of your comfort zone.”

Jo, mother of Felix, Cochlear™ Nucleus® System recipient, Australia





Select your music carefully

- 6** Begin by listening to simple music – a plain melody performed on just one or two instruments. Over time you can start to broaden your music listening goals, but rich and complex sounds are harder to understand when you first get started.

Create playlists

- 7** It will take some time for you to figure out what music will be most pleasant for you to listen to. We recommend creating playlists of music that sounds nice to you. You can create these playlists on Spotify, YouTube or anywhere you usually get your music.

It's a good idea to create a new playlist every 3 months to see how your musical preferences evolve over time. In the playlist title, note the date you started creating it. This way you can easily keep track. You may find that the songs you enjoy start to use more instruments and have increasingly complex beats.

Set and revisit listening goals

- 8** You can track your progress by setting yourself some listening goals. You can set realistic goals with the help of your hearing healthcare professional. But remember, your goals can always be revisited over time and adapted. For example, if you have set a goal to attend a live concert and find that you aren't ready, you can always move that goal a few months down the track.

Remember you aren't alone

- 9** When you get started, be open with your family. Not only will they be a source of emotional support, but some of the music listening exercises can be more fun when doing it with a rehab partner.

“I think my dance moves have gotten a lot better since I've been activated. Because I can hear the music, I can match the rhythm of my dancing.”

Carly, Cochlear™ Nucleus® System recipient, USA

Music selection and rehab exercises

Before you get started on music listening practise it is important to involve your family and friends. Their support and encouragement can have a really positive impact on your progress. Your family can also help you set up an appointment to speak with your hearing health professional. Your hearing healthcare professional will be able to help you set personalised goals.

We have developed some simple steps that you can follow to discover your love for music and help with those initial stages of song selection. When it comes to music rehab, it's important to start with the basics, go at a pace that you are comfortable with and try not to overcomplicate things.

Keep it simple

- 1 Begin by listening to songs performed using one instrument i.e a piano or guitar. Songs that are familiar or repeat musical patterns can be easier to follow.

Pick up an instrument

- 2 Grab an instrument and start playing. You may find that you form a deeper connection to music when you are the one producing the sounds and setting the rhythm. This is also a great way to experiment with different chords and how small changes to the notes you play can alter the overall sound.

Explore Music Apps

- 3 There are a great library of apps that you can download to help with things like identifying the different sounds instruments produce, tone, pitch and rhythms – All of which come together to form the melodic quality of songs. Later on, once you are onto step 5, you can try downloading some lyrics training apps. We have shared a list of useful apps further down in the guide.

Continue with instrumental songs

- 4 Build your confidence in listening to instrumental songs and begin listening to songs that use 2 or 3 instruments. You can even watch these being performed on Youtube, so you can see when the different instruments are being played.

To increase the difficulty, listen without the visual input and try to identify the different instruments being played and listen for shifts in the beat.

Introduce lyrics

- 5 Start with simple songs with repetitive lyrics. If you choose a song where you are familiar with the melody, that's even better.

Watch live or acoustic performances

- 6 Start by watching live acoustic performances of artists you like on YouTube. Try typing BBC Live Lounge into the search bar to see good quality live performances from a range of artists. Live or acoustic performances tend to strip back the production side of the song and use fewer instruments, making it easier to listen to the words the singer is saying. Also, by watching their performances, you get the visual input of their lip movements and facial expressions. Try having the lyrics on hand, so you can follow along with the singer.

Listen to live acoustic performances

- 7 Repetition is key, so try listening to the same acoustic performances, but this time without the visual cues that come from watching a video. When listening to the song, focus on identifying the lyrics, how the singer uses tone to convey emotion and also listen out for the different instruments that are being used.

Watch music videos

- 8 Music videos usually use the radio edit version of songs, these tend to be more stylised and a step up in listening difficulty.

Listen to the song without video

- 9** The next step is to listen to the same song but without the video. Same as step 5, try to have the lyrics on hand so you can follow along with the song. From here, you can listen to different songs by the same artist and then move onto other songs by different artists in the same genre.

Get experimental with music

- 10** Branch out and get experimental! Try listening to different genres of music that you normally wouldn't listen to. This will expose you to different tones, instruments and beats. For example, if you usually listen to pop, try listening to rock or dance music.





Celebrate your wins

- 11** Taking responsibility for your music listening practise is a big step! Don't be afraid to give yourself a pat on the back and be proud of the work you are doing. Remember, your family, friends and whole Cochlear Family community are here to support you. Well done, you're doing a great job!

Helpful independent resources

Below are a list of independent and apps to help with music rehab and appreciation.

Apps

-  **1. Bring Back the Beat™ [ANZ only]**
A fun learning app with five different games to help people with Cochlear™ implants regain the joy of music. It encourages focused attention to music, starting with simple notes and instruments and builds up to more complex melodies.
-  **3. Auralia Pitch Comparison**
Helps to develop the fundamentals of pitch awareness. The app has exercises that increase in difficulty. Early level exercises start by asking players to compare 2 different pitches and later level exercises will ask players to compare the first and last notes of a played melody.
-  **2. Hearoes**
An interactive auditory training platform that helps familiarise cochlear implant users with different environmental and instrumental sounds, speech sounds (vowels and consonants) and sentences. Great for general hearing rehab but also for listening to music and following along with the lyrics.
-  **4. Lyrics Training**
This app covers a wider range of languages and works on developing word recognition in songs. There are two game modes, multiple choice and karaoke. With multiple choice, players are asked to fill in the gaps for the lyrics. Karaoke game mode works by playing the song and highlighting the word as it is sung by the artist.

Visit [cochlear.com](https://www.cochlear.com) for additional support information or contact your local customer service or hearing healthcare team.

Cochlear Family

Hear now. And always

As the global leader in implantable hearing solutions, Cochlear is dedicated to helping people with moderate to profound hearing loss experience a life full of hearing. We have provided more than 600,000 implantable devices, helping people of all ages to hear and connect with life's opportunities.

We aim to give people the best lifelong hearing experience and access to innovative future technologies. We have the industry's best clinical, research and support networks.

That's why more people choose Cochlear than any other hearing implant company.


References

1. Torppa R, Huotilainen M. Why and how music can be used to rehabilitate and develop speech and language skills in hearing-impaired children. *Hearing Research* 2019; 380: 108–122.
2. Looi V, Gfeller K, Driscoll V. Music appreciation and training for Cochlear implant recipients: a review. *Seminar Hear.* 2012 Nov 1;3(4):307–334

Disclaimers

* The Cochlear Nucleus Smart App is available on App Store and Google Play. For compatibility information visit www.cochlear.com/compatibility
Android is a trademark of Google LLC. Google Play and the Google Play logo are trademarks of Google LLC.
Apple is trademark of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc., registered in the U.S. and other countries.

Visit Cochlear.com for more detailed information or call your local customer service team.

Connect with us on Social media:  /CochlearAsiaPacific  @CochlearGlobal  @CochlearAsiaPacific

Cochlear Ltd (ABN 96 002 618 073) 1 University Avenue, Macquarie University, NSW 2109, Australia Tel: +61 2 9428 6555 Fax: +61 2 9428 6352

Cochlear NZ Limited Level 4, Takapuna Towers, 19-21 Como Street, Takapuna, Auckland 0622 New Zealand Tel: 64 9 914 1983

株式会社日本コクレア (Nihon Cochlear Co Ltd) 〒113-0033 東京都文京区本郷2-3-7 お茶の水元町ビル Tel: 81 3 3817 0241 Fax: 81 3 3817 0245

Cochlear (HK) Ltd Room 1404-1406, 14/F, Leighton Centre, 77 Leighton Road, Causeway Bay, Hong Kong Tel: +852 2530 5773 Fax: +852 2530 5183

Cochlear Medical Device (Beijing) Co Ltd Unit 2608-2617, 26th Floor, No.9 Building, No.91 Jianguo Road, Chaoyang District, Beijing 100022, P.R. China
Tel: +86 10 5909 7800 Fax: +86 10 5909 7900

Cochlear Limited (Singapore Branch) 238A Thomson Road, #25-06, Novena Square Office Tower A, Singapore 307684 Tel: +65 6553 3814 Fax: +65 6451 4105

Cochlear Korea Ltd 1st floor, Cheongwon Building 33, Teheran-ro 8 gil, Gangnam-gu, Seoul, Korea Tel: +82 2 533 4450 Fax: +82 2 533 8408

Cochlear Medical Device Company India Private Ltd Ground Floor, Platina Building, Plot No C-59, G-Block, Bandra Kurla Complex, Bandra (E), Mumbai - 400 051, India
Tel: +91 22 6112 1111 Fax: +91 22 6112 1100