

Parent Guide





Welcome to BabyBeats!

The first year of a child's life is a busy and exciting time, filled with new experiences and discoveries. It is also the time when babies begin to develop communication skills.

BabyBeats opens the world of sounds, music, and voice for your child who has hearing loss. BabyBeats provides a motivating, fun way to encourage your child's communication both before and after using hearing aids or receiving cochlear implants.

There is growing evidence that music assists with early language development and emotional well-being (see the references at the back of this guide). Before babies understand words, they tune into your musical 'sing song' voice.

BabyBeats will take you and your child on a musical journey exploring the musical aspects of sound, including pitch, duration, and rhythm. Vision, movement, touch, and hearing are incorporated into the quick, easy, and fun activities designed to help your child learn to listen and communicate. You can choose several different activities in a play session or repeat a favorite activity over and over. BabyBeats can be used in both home and early intervention settings, and in either one-on-one or group sessions.

BabyBeats is designed to be used with babies as young as three months and up to 24 months. You can integrate this musical resource into your daily routines with your child.

BabyBeats[™] Basics

The BabyBeats Early Intervention Pack opens the world of sounds, music, and voice for you and your child. It is designed to get you started immediately using musical activities for communication development. The pack contains:

- BabyBeats Parent Guide
- BabyBeats Music CD
- Ocean Drum
- Transportation and Animal Picture Cards
- Duck
- BabyBeats Travel Bag
- "Notes: My Progress with BabyBeats" is available for download (see page 16)

Before You Begin

To maximise your child's ability to hear and communicate using BabyBeats:

- Check their equipment to make sure it is working every day.
- Help your child get into the habit of wearing their hearing aids or cochlear implant sound processors.
- Build in some special time every day when you are one-on-one with your child, for routine opportunities that focus on listening and communicating. The activities from BabyBeats are ideal for this special time.
- Keep it up! The more you practice, the better the results.

Begin the Musical Journey

Get ready to follow four Musical Trails with your child:

- Movement & Music
- Exploring Instruments
- Animal Sounds
- Transportation

Each Musical Trail will have different sounds and music for you to explore together. Descriptions are provided below. In the following sections, you will find activities that you can do with your child while exploring the different Musical Trails.

Explore Movement & Music:

Listen to the short, repetitive pieces of music. Move to the music. You will hear and respond to differences in timbre (sounds), tempo, rhythm, and pitch. The music is distinct, predictable, and helps your child anticipate what will happen next. Encourage your baby's vocalizations and imitations in response to the music and your voice.

TIP: Holding your child close to your body allows them to feel resonance in your voice, hear your voice, engage in eye contact, and see your facial expressions (emotions).

Explore Instruments:

Listen for music that starts and stops, plays slow then fast, or pauses. Short, changing music keeps your child's interest. Play instruments with the music to help your child focus with you on the instrument, use eye contact, and interact with you. You will practice modeling the same word and then using a new and different word.

TIP: Your child's response to the sounds with the instruments will be different before receiving hearing aids or cochlear implant sound processors. At first, they may respond using what is seen and felt; later as learning happens, they may respond to what was heard, seen, and felt.

Explore Animal Sounds:

Listen for full, melodic pieces of music that are contrasted with animal sounds or silence. This helps your child use their hearing to hear different patterns in the music. Encourage your child to imitate movements and words. Make animal sounds and dance with your duck and other animals around the house!

TIP: You can help increase your child's language by adding new sounds and words. When the animal sounds are not in the music, sing the LING sounds.

Explore Transportation:

Listen for music that is dynamic and represents different modes of transportation. Listen to the music for cues on how to move. This music helps your child to focus and listen more attentively. Use symbolic sounds, like a train whistling to help your child learn that sounds and words have meaning.

TIP: Your toddler will be expressive both vocally and physically (body movement, facial expressions). Let the music dictate the expression!

Musical Trails for Babies

You and your child are ready for the activities along each musical trail. Gather some of your toys and instruments and your BabyBeats[™] bag. Try the Baby Activities below using the BabyBeats CD, supplies in your BabyBeats bag, and instruments and toys you have in your home. You may invent some new activities along the way. Have fun exploring sounds, music, and voices together!

Explore Movement & Music for Babies:

Please note the movements outlined are suggestions. Only do these if you feel comfortable moving your child in these ways. If your child is working with a specialist to support the development of their movement, please seek advice from your specialist. Alternatively, make up any movements you like. Enjoy moving and singing with your baby, looking at each other, and using plenty of facial expressions. Remember that each time you repeat the sequence, your child will begin to anticipate the movement. Even if you are not a confident singer, your baby will gain real benefit from experiencing the vibration and sound of your voice.

Movement & Music Complete Sequence:

Track 1:

Rocking – rock with your baby forward and backwards, or side to side while cuddling together. (Sing "La la la")

Up & *Down* – lift your baby up (Sing "Up") then down (Sing "Weee" or "Down") at the same time as the music.

Rocking – repeated.

Creep & Tickle – lie your baby down and, starting at their feet, inch your fingers up and tickle their tummy. (Sing "Creep, creep, creep" and "Tickle") *Running legs* – keep your baby lying on the floor and hold their legs. Make fast running movements with their legs, starting and stopping to the music. (Sing "Run, run, run" and "Stop")

Rocking – lift your baby up, and repeat the rocking movement. Don't forget to sing!

Out & In – move your baby's arms out then in, repeat really quickly - out/in, out/in, out/in - then stop. (Sing "Out" and "In")

Rocking – repeat to finish.

Gradually you will discover the movements and sounds your child enjoys the most. Select this individual activity and repeat as many times as you like. Repetition is an excellent way for your baby to learn, anticipate, and gain confidence.

Track 2: Rocking Track 3: Up & Down Track 4: Creep & Tickle Track 5: Running legs Track 6: Out & In

Explore Instruments for Babies:

Sit your baby in their highchair for this activity. It will help to focus their attention and will make it easier for you both to explore and share the instruments. In addition to the instruments listed below, other suggested types of instruments are listed at the back of this booklet. Begin by playing the different instruments while encouraging your baby to watch and listen. Then offer them a turn. Select one instrument and use the matching piece of accompanying music from the BabyBeats[™] CD.

Track 7: Ocean Drum

Hold the ocean drum together and move it round and around. When the music changes, tap on the top or shake up and down for contrast. Return to moving it round and around with the music. (Sing "Round and around" then "Shake, shake, shake")

Track 8: Shakers

Using an egg shaker or small maraca for your child, hold the instrument together with your child, and shake in time to the music. The music contrasts slow and fast: shake to the tempo of the music. (Sing "Shake, shake, shake" in time to the rhythm of the music)

Track 9: Small Drum

(You can use the back of the ocean drum for this activity if you do not have a drum.) Hold the instrument together with your child and tap it in time to the music. (Sing "Tap, tap, tap" or "Bang, bang, bang")

Track 10: Shaker Bells

Shake the bells together, starting and stopping with the music. (Sing "Shake, shake" and "Stop")

Track 11: Wind Chimes

If your child is waiting to receive a cochlear implant, they will not hear this instrument, but will be captivated by its tactile and visual qualities. Play together, holding the instrument between you. Try lifting the instrument up high for your baby to reach up. Once they receive their cochlear implant, you will discover the great impact the sound of the instrument can have. It is one of the most effective instruments for a baby and child with a cochlear implant to play. (Sing "Weee" or "La" to the rhythm and pitch of the music)

BabyBeats[™] early intervention resource

Explore Animal Sounds for Babies:

Animal Sounds contrasts a short, highly rhythmic and repetitive piece of music with silence, the sounds of animals, or your voice. There are movements to go with the music and words to sing along. Use your toy animals including your Duck!

Track 12: Animal Sounds

Highlight the music by bouncing your baby on your knee or dancing around the room together. Stop when the music stops; then, after a short while, you will hear the sound of an animal. Use a listening cue to encourage your baby to focus on the different sound.

In each case, make the sound of the animal yourself and encourage your baby to join in.

- Cat
- Dog
- Duck
- Monkey

Use your own animal toys. Show your baby an animal and make its sound. Gradually you will increase the number of animals to join the musical dance!

Track 13: My Own Animal Sounds!

Dance with your baby around the room to the music, stopping when the music stops. Encourage your baby to wait and listen until the music starts again, then continue to dance. Raise your hand to your ear, to show you are listening for the sound.

Select one animal. Dance or move with your baby to the music. When the music stops, make the sound of the animal, repeat this sound each time the music stops. Use your own animal toy and show it to your baby while making the sound.

TIP: BabyBeats can be included in different parts of your daily routine. Bath time is a regular part of your day, when you are one-on-one and in close proximity with your baby. Use your Duck in the bath, splash together during the music. Make the sound of the Duck as it slowly appears from the side of your tub!

Track 14: Horse Music

Sit your baby on your knee, bounce together as if you were on a horse, pretend to lift your baby up over the fence as the pitch of the music gets higher. (Sing "Bounce, bounce, bounce, jump over the fence. Bounce, bounce, bounce, bounce, jump over the fence")

Explore Transportation for Babies

This Musical Trail contrasts short pieces of music that represent different forms of transportation. There are movements to go with the music and words to sing along. You can use transportation toys and move them around for your baby to follow while making the sounds. Talk about the toy with your baby or find simple transportation picture books to read together.

Focus on matching your movements with the beat of the music while making the sounds of the different types of transportation.

Track 15: Car

Sit your baby on your knee, pretend to beep the horn, and bounce them up and down in time to the music, as you pretend to drive the car together. Stop when the music stops. Wait and listen for the sound of the 'beeping horn' before you start driving again! The music contrasts a slow and fast section. (Sing "Beep...Driving, driving in the car")

Track 16: Train

Sit your baby on your knee or lying down on a mat in front of you. Listen for the sound of the train, and slowly move their arms or legs forward and back, individually, using a pumping movement. Increase the speed of your movements from slow to fast with the music, then slow down and whistle at end. (Sing "Choochoo, choo-choo...Whoo, whoo")

Track 17: Boat

Sit your baby on your knee and, if stable through their trunk, hold their arms outstretched, sway from side to side. (Sing "Whoosh, whoosh") You could use a light piece of material to swing with your baby.

Track 18: Bike

Sit your baby on your knee facing out. Lean backwards slightly and, holding their legs, make a cycling movement, using a slow legs movement at first and getting faster. Listen for the sound of the bell to begin and stop. (Sing "Round, round, round...Ding, ding")

Track 19: Airplane

If your baby is small, you can move them like a plane or lay them on the floor holding a toy plane. Begin down low and gradually move up high with the music. Move your baby like a plane, or encourage your baby to follow the toy plane to the swirling music. Come down to land at the end. (Sing "Ahhhh" contrasting high and low sounds)

Musical Trails for Toddlers

You and your toddler are ready for the activities along each Musical Trail. Try the toddler activities below using the BabyBeats CD, supplies in your BabyBeats bag, as well as instruments and toys you have in your home. You may invent some new activities along the way. Have fun exploring sounds, music, and voices together!

Continue to use BabyBeats as part of your daily routine. You will discover how your toddler begins to show a greater recognition and awareness of different music, instruments, and movement capabilities. They will also begin to increase their vocalizations, and oftentimes, single words will emerge.

Explore Movement and Music for Toddlers:

As soon as your child becomes mobile (crawling and then walking), it is completely normal for them to be busy and interested in exploring their environment. They tend to take the lead while parents follow! Listen carefully as they try new sounds and words. Watch, respond, and join in with them. Remember you do not need to be a great singer; your singing will be your toddler's favorite music.

Track 1: Music and Movement complete sequence

TIP: As you repeat the rocking section, sing your toddlers name, vary the tone of your voice. Watch your toddler as you move and show how interested you are in their sounds.

Rocking – do this standing up. Sway from side to side and encourage your toddler to copy you. Or sit opposite your toddler, hold hands and rock backwards and forwards together. (Sing "La, Ia, Ia")

Up & *Down* – crouch down and slowly reach up, then jump down. (Sing "Up, up, up – weeee")

Rocking – repeated – do this swaying from side to side.

Creep & Tickle - inch towards your toddler and tickle their tummies. (Sing "Creep, creep, creep" and "Tickle")

Running Legs – chase your toddler around the room, or run on the spot, stopping and starting with the music. (Sing "Run, run, run...Stop")

Rocking – repeat.

Out & In – move your arms out and in and encourage your toddler to copy you. (Sing "Out" and "In")

Rocking - to finish.

Extra ideas:

- Add new actions
- Add body part names
- Add your toddler's name and sing about what you are both doing

Discover your toddler's favorite movement activity. Repeat this over and over, encouraging them to join in singing with you.

Track 2: Rocking
Track 3: Up & Down

Track 4: Creep & Tickle Track 5: Running legs Track 6: Out & In

Explore Instruments for Toddlers:

Your toddler may develop a preference for a particular instrument and only want to play with that one. That is fine; you do not need to use them all. Follow your toddler's lead and let them play with it for as long as they want.

Your toddler may copy what you do with the instrument, and you can copy what actions they do (even if they are not the ones suggested). The accompanying music provides structure to the activity. It focuses on:

- Starting and stopping
- Taking turns
- Playing slow and fast
- Rhythm, prosody, and pitch

Track 7: Ocean Drum

Turn the ocean drum round and around then when the music changes (timbre), tap on the top or shake for contrast. Look and wait to see if your toddler listens for when to change the style of playing. (Sing either "Side to side" or "Round and around" and "Shake")

Track 8: Shakers/Maracas

Start and stop the sound. Encourage your toddler to copy your movements in time to the music. It begins slowly, then gets faster. Wait to see if your toddler listens and anticipates when to change their playing from slow to fast. (Sing "Shake, shake, shake..." then fast "Shake...!")

Track 9: Small Drum/Tambourine

Use the back of your ocean drum if you do not have a small drum. As your toddler

holds the instrument, tap it in time to the music together. Look to see how your toddler gradually begins to play in time to the music, and for longer periods of time. (Sing "Tap")

Track 10: Shaker Bells

Play your bells and encourage your toddler to imitate when to start and stop with the music. Listen for the start of the music each time. You can extend this activity by playing the bells up, down, out, in, behind, in front. (Sing "Shake, shake, shake..." and "Stop" or "Up, Down" etc...)

Track 11: Wind Chimes

Once your toddler receives their cochlear implant, they will have the opportunity to hear this delicate sounding instrument. Encourage your toddler to play slowly and carefully, using each hand individually and both hands together. Sit across from your toddler, playing with the wind chimes together. Take turns playing and listening to each other. (Sing "Wriggle your fingers to play on the wind chimes; Wriggle your fingers to play")

Extra Ideas:

- Use anticipatory games with the different instruments: Ready, Steady, Go, More, Again
- Take turns playing the different instruments
- Show your toddler a choice of two instruments; wait to hear which one they want to play
- Discover if your toddler can locate the different instruments from different positions in the room or played at different dynamic levels and lengths of time

Explore Animal Sounds for Toddlers:

Animal Sounds Track 12 contrasts pre-recorded animal sounds (symbolic sounds) with a repetitive, rhythmic, full-sounding musical piece.

Track 13 uses the same music, but introduces pauses (silence) between the full musical sections. By contrasting voice and music in Animal Sounds, your toddler is

BabyBeats[™] early intervention resource

listening to and learning changes in timbre, dynamic texture (amount of sounds), pitch, and voice. It provides a powerful auditory experience for your toddler.

TIP: Encourage your toddler to think for themselves and introduce different animals, people, and ideas to the structure of the music. Find simple books about animals to read together.

Track 12: Animal Sounds

Dance with your toddler around the room in time to the music. You could change the action for your toddler to imitate each time the piece of music starts: rhythmically clap, tap your head, shrug your shoulders, bounce, shake your arms or copy the actions your toddler makes up.

After a short dance you will hear the sound of an animal. Try these games:

- Hide the animal/animal picture under a scarf each time and discover the animal together
- Have the animals/animal pictures placed in a different part of the room, find the animal and all dance together
- Place the animals together, starting with two (increase over time) wait to see if your toddler takes the correct animal.

In each case, make the sound of the animal yourself and encourage your child to join in.

- Cat
- Dog
- Duck
- Monkey

As you finish the dance, wave 'bye' bye' to the animal and put it into your BabyBeats bag. Encourage your toddler to join in each time, and eventually take the lead!

Track 13: My Own Animal Sounds

Dance or add simple actions to the music. Add different animal sounds in the pauses between the music. Repeat the same animal sound to encourage your toddler to imitate you.

Extra ideas: Encourage your toddler to name the animal in the pauses.

When the music stops, you and your toddler have to try and keep still, listen, and start again when the music begins. Watch your toddler to see when to start and stop. (Sing the different actions, or name body parts)

Dance or add actions to the music. When the music stops call the name of a member of your family or friends in the room. Encourage your toddler to call or find the person. Then make a circle and dance together.

Track 14: Horse Music

Pretend to be horses and gallop around the room and jump over the fences. Encourage your toddler to listen to the change in pitch in the music to know when to jump! (Sing "Galloping, galloping, galloping, galloping – jumping over the fence")

Explore Transportation for Toddlers:

Transportation allows your toddler to explore the link between pieces of music, a sequence of movements, and a symbolic noise and/or word that represents an object. Use the Transportation Pictures provided or any transportation toys you have.

Put the cards on the floor, as your toddler listens to the music. They can find the appropriate card, then do the musical activity. Take turns listening and collecting the cards.

Track 15: Car

Encourage your toddler to listen for the sound of the car horn, then pretend to drive your cars around the room. Encourage your toddler to listen for when to stop and start. You will be driving slow or fast depending on the music. (Sing "Brrmmm" and "Beep!")

Track 16: Train

Pretend to be a train, using your arms to rotate like the wheels and move around the room. Get faster and slower and stop at the station! Encourage your toddler to listen and change movement with the music. (Sing "Whoooo")

Track 17: Boat

Stand and sway together or independently, or move a light material up/down, side to side, or blowing together like a sail. (Sing "Swish")

Track 18: Bike

Pretend to hold the handlebars and cycle around the room. Listen for the sound of the bell to show when to start and stop. (Sing "Ding-a-ling")

Track 19: Airplane

Pretend to be planes. Begin crouching down, and gradually rise up, hold your arms out to the side and fly around the room. Listen for when to land your planes. (Sing "Aahhhhh" and "Up, up, up, and awwway!")

BabyBeats BONUS TRACK

Making the Most of Everyday Opportunities:

BabyBeats was designed to be used as part of your daily routine with your baby or toddler. Daily routines, such as meal times, diaper changing, going for a walk, going upstairs, bath time, and now BabyBeats, happen throughout the day.

Use these opportunities and routines to incorporate appropriate language. Talk about the 'here and now' and keep your language simple. Over time, your toddler will begin to recognize the words, attach meaning to them, join in vocalizing, copying, and using words.

For more information, ideas and exciting resources to support you and your child, explore *TheListeningRoom.com*.

Here is a peek at what you may find! Remember to use your 'Sing-Song' Voice as you walk up the stairs!

Track 20: Up the Stairs!

Want more BabyBeats?

Please visit: AdvancedBionics.com

Find an Instrument!

Below are some pictures of different instruments that you can add to your collection to use with BabyBeats™.



Wind Chimes



Shakers and Bells



Cabassa



Woodblock



Large Bell



Tambourine



Large Ocean Drum



Toddler Bells



Rainstick

BabyBeats[™] early intervention resource

References

Trehub SE. The developmental origins of musicality. Nat Neurosci 2003;6:669–673

Shenfield T, Trehub S, Nakata T. Maternal singing modulates infant arousal. Psychol Music 2003;31:365–375

Phillips-Silver J, Trainor L. Feeling the beat: Movement influences infant rhythm perception. Science 2005;308:1430

Welch G. The musical development and education of young children. In: Spodel B, Saracho O, eds. Handbook of Research on the Education of Young Children. Mahwah, NJ: Lawrence Erlbaum Associates Inc.; 2006:251–267

Papousek M. Intuitive parenting: a hidden source of musical stimulation in infancy. In: Deliege I, Sloboda J, eds. Musical Beginnings. Oxford, UK: Oxford University Press; 1996:88–112

Winkler I, Kushnerenko E, Horvath J, et al. Newborn infants can organize the auditory world. Proc Natl Acad Sci USA 2003;100:11812–11815

Hargreaves D. The development of artistic and musical competence. In: Deliege I, Sloboda J, eds. Musical Beginnings. Oxford, UK: Oxford University Press; 1996:145–170

Tsang C, Trainor L. Spectral slope discrimination in infancy: sensitivity to socially important timbres. Infant Behav Dev 2002;25:183–194

Bonne R, Cunningham J. Children's expression of emotional meaning in music through expressive body movement. J Nonverbal Behav 2001;25: 21–41

Dolgin K, Adelson E. Age changes in the ability to interpret affect in sung and instrumentally presented melodies. Psychol Music 1990;18:87–98

Brain Development

Patel, A.D. (2003). Language, music, syntax and the brain. Nature Neuroscience: 6(7):674-681.

Jentschke S, Koelsch S, Sallat S, Friederici AD. Children with specific language impairment also show impairment of music-syntactic processing. J Cogn Neurosci. 2008 Nov;20(11):1940-51.

Francois C, Schön D. Musical expertise boosts implicit learning of both musical and linguistic structures. Cereb Cortex. 2011 Oct;21(10):2357-65

CD Track List Musical Trails:

Exploring Movement and Music

Track 1: Complete Movement and Music Sequence Track 2: Rocking Track 3: Up & Down Track 4: Creep & Tickle Track 5: Running Legs Track 6: Out & In

Exploring Instruments

Track 7: Ocean Drum Track 8: Shakers Track 9: Small Drum/Tambourine Track 10: Bells Track 11: Wind Chimes

Exploring Animal Sounds

Track 12: Animal Sounds Track 13: My Own Animal Sounds Track 14: Horse

Exploring Transportation

Track 15: Car Track 16: Train Track 17: Boat Track 18: Bike Track 19: Airplane BONUS TRACK 20: Up the Stairs

With thanks to the families,

Sandra Driver (Principal Speech and Language Therapist) and Emma Stark (Deputy Principal Speech and Language Therapist) at Guy's and St. Thomas' NHS Foundation Trust.

Advanced Bionics AG

Laubisrütistrasse 28, 8712 Stäfa, Switzerland T: +41.58.928.78.00 F: +41.58.928.78.90 info.switzerland@AdvancedBionics.com

Advanced Bionics LLC

28515 Westinghouse Place, Valencia, CA 91355, United States T: +1.877.829.0026 T: +1.661.362.1400 F: +1.661.362.1500 info.us@AdvancedBionics.com

For additional contact information, please visit AdvancedBionics.com/contact