

## PROGRAM GUIDE MUSI-CI.

Each lesson consists of 6 fixed components, providing a clear structure to the lessons.

1. Structured conversation topics to promote exchange, self-activity, motivation, and the acquisition of new habits (behavioral change). Relearning how to engage with everyday music encountered in various situations shifts from tolerating and enduring to embracing it. When individuals can go through this process, it creates space for social participation. Participants learn with and from each other (social learning).
2. Meter and rhythm perception. Becoming aware of the sense of meter (the beat, the regular pulse of music) by moving and synchronizing with it. Understanding that rhythm (often expressed through shorter notes) fills the regular pulse of the meter/beat. The outcome is that consciously sensing the beat of music provides fundamental structuring to music. As a result, music is experienced as less chaotic noise. Additionally, working with layered exercises (meter and rhythm combinations) engages multiple brain areas, benefiting auditory processing as well. These exercises are derived from the Ronnie Gardiner Method (RGM) and Neurologic Music Therapy (NMT).
3. Instrument timbre. Focusing on the distinct sound of several instruments and assigning meaning to them helps CI users (re)learn to differentiate the sound of those instruments. By being able to distinguish more instruments, music gains more "color" and becomes more diverse to listen to. This also enhances general discernment. Once CI users can filter out more instruments from the whole of music, it often gives them a sense of regaining control over listening to music. The goal is to teach CI users to explore music rather than solely focusing on recognition. The latter often leads to disappointment. Adjusting to and accepting the (often alienating) sound of the CI, particularly when listening to music, is also a topic discussed within the conversation topics.
4. Atmosphere or mood in music. The atmosphere of music can be perceived by directing attention to experiencing the music as a whole (zooming out) rather than focusing on the sound of individual instruments (zooming in). We discuss in the group the feelings and emotions that music evokes. The outcome is that music experience is supported by the self-confidence that you can perceive the atmosphere of music.
5. Pitch perception. This is the most challenging part of the Musi-CI training because the CI's speech processor is primarily designed for speech understanding. Frequencies necessary for music perception are limited in transmission. Working with pitch is practiced using sound bars and supported by the Melody Game. The Melody Game allows participants to practice distinguishing pitches and short melodies at home. Improved pitch discrimination may enhance the ability to follow the melody and potentially aid in recognizing familiar music. Not being able to recognize music is a significant loss for many CI users.
6. Music with lyrics is important or even the only anchor for many individuals with hearing loss when listening to music. When the ability to understand lyrics becomes more achievable with the CI, working with songs becomes an important and rewarding topic. Practicing understanding lyrics in music can also contribute to better speech understanding in background noise. The practice method involves repeated listening to short pieces of music with accompanying lyrics. Note down what you have understood and continue to puzzle it out. When you no longer understand new words, start reading along with the lyrics. It is often remarkable to notice that once you have understood a word, you continue to understand it. In this regard, it is worth discussing all available tools, such as streaming music to the CI, using YouTube with lyrics for music, and utilizing Spotify with lyrics.

## Self-efficacy & formation of new habits programme

In addition to working with the musical basic elements, the Musi-CI training focuses on promoting a sense of self-efficacy and self-activity. The approach used is Progress-Focused Learning (Schlundt Bodien, 2018). The training aims to enhance individuals' belief in their own abilities and empower them to take an active role in their learning process.

### *Learning objective – The participant will learn:*

- To trust in their own abilities to (learn to) listen to music again.
- To start new habits to engage in listening to music again.
- A new attitude towards music, focusing on exploring what music they enjoy rather than solely recognizing previously known music.

### *Why:*

- The sense of self-efficacy – "I can do this" – is a prerequisite for success.
- Developing a good habit is helpful in performing a task, such as regularly listening to music.
- Active participation is necessary to prevent participants from passively going through the Musi-CI training without actively engaging. Encouraging and facilitation this active participation will contribute to the effect of the Musi-CI training.

### *How:*

- By developing confidence in their own abilities.
- By teaching and reinforcing the habit of listening to music again or more frequently.
- By working with the areas of "positive health," "growth mindset," "practice," and "learning & the brain," as elaborated below.
- By dedicating approximately 20 minutes of each lesson to discussing a related topic and peer exchange, combined with questions about homework and the previous lesson.

### *Starting point:*

- Many Musi-CI participants avoid music because it sounds unpleasant or unrecognizable. They no longer experience the same enjoyment of listening to music as they did before hearing loss and receiving the CI.
- Most participants have little confidence in their ability to enjoy music again or even tolerate it.

### *Learning outcome – The participant will experience or be able to:*

- Participants have gained positive experiences with music during the Musi-CI training.
- Participants have developed personal habits to engage in listening to music again.
- Participants can independently continue their musical journey and make their own musical choices.

Here is a short booklist:

- Eric Clarke: "Ways of Listening: An Ecological Approach to the Perception of Musical Meaning" (2005)
- Juslin & Sloboda: "Handbook of Music and Emotion: Theory, Research, Applications" (2020)
- Koelsch: "Brain and Music: Evidence from Neuroscientific and Clinical Studies" (2013)
- Daniel Levitin: "This is Your Brain on Music: The Science of a Human Obsession" (2007)
- Rollnick et al: "Motivational Interviewing: Helping People Change" (2009)
- Thaut & Hoemberg: "Handbook of Neurologic Music Therapy" (2014)

These books cover various aspects of music perception, emotion, the brain, motivational interviewing, and neurologic music therapy, which can provide valuable insights related to the Musi-CI training program.

## Self-efficacy & formation of new habits programme

### Lesson 1

"3 first questions": Write down 3 things you want to achieve with Musi-CI; how motivated do you feel; how confident do you feel that it will be better in 3 months.

Discuss: The goal of Musi-CI is to experience more enjoyment in music. Becoming curious about sound, focusing on exploring rather than recognizing. We work with active exercises and active listening.

Show the overview of what others have achieved (in the PowerPoint).

Growth mindset: What will be better in 3 months regarding music?

Discuss how to approach homework; finding a quiet listening place; forming habits as a starting point.

### Lesson 2

Discuss the "MUSIC-LEARNING-OBJECTIVES" overview and have it filled out. The learning objectives include feeling the beat, following rhythm/RGM, learning to hear differences between instruments, working with lyrics in music, following pitch and melody, using the Melody Game, and enjoying listening to music again.

Connect the learning objectives to the ways of practicing – what does already work?

Choose a learning objective for a practice session every day; take small steps; promote self-activity.

### Lesson 3

Music with LYRICS. What can you already do with it? What is important? What tools are available?

Streaming, when to use it and when not to. Developing a habit of listening, taking small steps. Read about "new habits." Homework and finding a quiet listening spot.

### Lesson 4

Music as BRAIN-FITNESS Taking small steps, repeating a lot, working on each learning objective.

Can you have music/sound coming in, do you feel comfortable to welcome it?

### Lesson 5

Exploring vs recognizing. This can be combined with collectively searching for desired music. What is important? What helps you in terms of enjoyable listening? What do you need to let go of? Experimenting and discovering. What brings you joy? Individual input and music of personal choice.

### Lesson 6

What do you need to STAY ENGAGED with music? Can you reintegrate music into your life?

Sound from TV, phone, social media, etc. Compare the sound of CI to a photo with too few pixels. How would you like to share this with family/friends? Watch the film "Listening with an ARTifical Ear"

(<https://www.youtube.com/watch?v=W4mLya-F-9I>).

### Lesson 7

What methods have you found for engaging with music? Share a few stories from previous participants.

Discuss the difference between attentive listening and listening to background music. What kind of music is suitable for each?

Discuss the difference between streaming music (direct and clear) and listening through speakers (more immersive experience in the space).

### Lesson 8

Print out the filled-in "3 questions" from lesson 1 at the top of an A4 page and ask participants to note how far they have come. Discuss the outcomes.

Discuss what has been learned and the benefits for each participant in each aspect. Review the music from lesson 1: How does it sound now?

## BEAT, rhythm & RGM – programme

Because the exercises of meter, rhythm, and RGM are presented as a cohesive unit, they are described together below.

### BEAT

#### *Rationale:*

- Feeling the beat and synchronizing movements to it is the first step in re-engaging with music. Feeling is different from having knowledge. By developing a sense of meter, CI users experience less "chaos" when listening to music. Layered exercises, inspired by methodologies like RGM and NMT, engage multiple brain areas, including auditory processing.

#### *Learning objective - The participant will learn:*

- To move to the beat as the first step in exploring music instead of shutting themselves off from it.
- To differentiate (feel and recognize the difference) between 4/4 meter and 3/4 meter. It is sufficient for participants to be aware of the different movements associated with these meters and be able to label them as walking or waltzing.
- To independently enter into the music, which means starting to move independently with an appropriate motion.

#### *Why:*

- Feeling the beat is the most fundamental musical skill.
- Sense of meter is important for music enjoyment (Peretz, et al., 2003). Feeling the beat and moving along with it creates a sense of musical engagement.
- Feeling the beat together fosters a sense of connection.
- Being able to independently enter into the music promotes autonomy, such as starting to listen (instead of shutting oneself off from the music) and initiating movement, for example, dancing, clapping, or stomping.
- CIs can transmit meter and rhythm better than pitch, allowing most participants to grasp the beat effectively.

#### *How:*

- Designing the exercises in a way that participants don't have time to dwell on the challenging or "unpleasant" sound produced by the CI.
- Ensuring maximum attention during the execution of the exercises.
- Standing up during the exercises and listening until participants feel the urge to move with the music, then starting to move. Alternatively, sitting, listening, and waiting for the foot to start moving synchronized to the music. Building trust in the feeling that arises (often accurate).
- Observing together with participants whether the movements align with the beat of the music.
- Connecting the meter exercises to everyday music, avoiding exercises solely based on a metronome beat but instead using simple pop songs with a clear beat.

#### *Starting point:*

- Most participants have little to no experience in moving to music, especially with the CI.

#### *Desired learning outcome - The participant experiences or is able to:*

- The participants feel the difference between waltz and walking meter. They can move appropriately to waltz or dance music.
- Independently "enter" into the music.

## Beat, Rhythm & RGM – programme

### Rhythm

#### *Rationale:*

Rhythms bring music to life. Specific rhythms make music recognizable. Rhythms can serve as a guide when following music. Rhythms are also an important aspect of language.

#### *Learning objective - The participant will learn:*

- To actively listen to the different rhythms in music.
- To simultaneously perform meter and rhythm tasks (dual tasks).
- To sustain attention (auditory focus).

#### *Why:*

- Rhythms contribute to the atmosphere and specific sound of different genres of music, which can aid in recognizing and familiarizing oneself with that music.
- Improved ability to follow and remember rhythms can contribute to following speech.
- Participants enjoy the exercises. Rhythm exercises activate and engage.

#### *How:*

- Rhythm games, such as clapping dance rhythms.
- Combining rhythm and meter exercises. Participants play different rhythms.
- Exercises from NMT that involve dividing attention between multiple rhythmic tasks.

#### *Starting point:*

- Most participants have little to no experience in following or performing rhythms.

#### *Desired learning outcome - The participant experiences or is able to:*

- Extract and follow (dance) rhythms from music.
- Perform dual tasks, such as clapping and moving to the beat.
- Sustain (auditory) attention, such as maintaining their own rhythm while listening to other rhythms.

### *What is meter and what is rhythm?*

For participants with (very) little musical experience, meter and rhythm can often be confusing concepts. It is worthwhile to discuss this in the first lesson. Feeling rhythm is different from having knowledge about it.

### **METER or BEAT**

This is the regularly recurring pulse (the "beat"). You can compare it to a train with compartments passing by at a steady pace. The beat falls in each compartment, and you can recognize it because it sounds slightly louder than the other notes in the meter. After the beat, other notes also fall within the compartment, which is rhythm.

### **RHYTHM**

This is the filling of the meter with longer and shorter notes. The accents of the rhythm coincide with the meter. The rhythm can also completely coincide with the meter.

**REST** The rest is a note that takes up space/time but is not heard.

Meter is similar to marching, the rest is like a step on the grass, and the rhythm goes in between. Tempo is the speed at which one walks.

## Beat, rhythm & RGM – programme

### Ronnie Gardiner Method (RGM)

#### *Rationale:*

Auditory processing is affected by hearing loss/deafness. By linking psychomotor tasks with auditory tasks, the brain is challenged, benefiting auditory processing as well. RGM provides a structured method with clap exercises to music (listening, moving, and synchronizing) using symbols (reading). RGM-Online offers a good opportunity for home practice. These exercises are available for a small fee at [www.rgm-online.nl](http://www.rgm-online.nl) as part of the Musi-CI package.

#### *Learning objective - The participant will learn:*

- To perform complex clap exercises and synchronize them with music.

#### *Why:*

- Brain training, as participants engage in something challenging while listening.
- By challenging participants with difficult exercises while listening to music, there is no time to dwell on the unpleasant sound produced by the CI. Participants often respond positively to this.
- These exercises provide support for training a sense of meter/beat.

#### *How:*

- By listening to music, entering into the music (as described in the "Meter" section), and performing the symbol score.
- By gradually teaching clap exercises according to a score with RGM symbols.

#### *Starting point:*

- (Almost) nobody is familiar with the RGM symbols.

#### *Desired learning outcome - The participant experiences or is able to:*

- Perform complex gestures to (reasonably) fast-paced music, simultaneously verbalizing the corresponding names.
- Sustain their sense of meter while performing the RGM tasks.
- Listen to music for longer periods by engaging in the exercises.







#### *Tips and suggestions:*

Demonstrating rhythms and/or movements has the advantage that participants receive the exercise both audibly/auditory and visually. Mirror neurons are stimulated, making imitation easier. However, the downside is that participants may rely too much on visual input and not sufficiently develop and stimulate the rhythms and/or movements audibly in relation to the music.

The Musi-CI trainer should be mindful of this.

It requires creativity on the part of the Musi-CI trainer to adapt the exercises in a way that keeps all participants engaged and minimizes the risk of giving up.

## Symbolen van RGM met bijbehorende beweging

|  |   |  |
|--|---|--|
|  |  <p><b>DENG</b><br/>Steek beide handen tegelijk omhoog en trek ze weer terug</p>               |  |
|  |  <p><b>KLAP</b><br/>Klap met rechter- en linkerhand tegen elkaar</p>                           |  |
|  <p><b>BICK</b><br/>De linkerhand tikt op de linker dij, de linkervoet stampt op de grond, tegelijkertijd</p> |  <p><b>BENG</b><br/>Sla met beide handen op beide dijen, tegelijkertijd</p>                    |  <p><b>TOEM</b><br/>De rechterhand tikt op de rechter dij, de rechervoet stampt op de grond, tegelijkertijd</p> |
|  |  <p><b>TJOM</b><br/>Tik met beide hielen óf met beide tenen de grond aan, tegelijkertijd</p> |  |

## Beat, Rhythm & RGM – 8 lessons, summary

### Lesson 1

Feel the beat of 3/4 time (waltz) and 4/4 time (walk) + move with the music.

Play 5 examples (walk, walk, waltz, waltz, walk) - see if participants can feel it.

Exercise: walking in place; waltz = step-clap-clap; walk = step-clap-step-clap. First feel, then move.

Continuously check if the movements are still synchronized with the music.

The beat is the louder note that regularly repeats. The rhythm comes from the fast notes in between.

Game: skip a step/clap, make it a rest/silent note, and create a gesture. Use Riverdance, Mayumana, Steve Reich, Hand clap skit for following beat/rhythm.

### Lesson 2

Focus on waltz. Teach participants to start on their own in time: feel first, then move.

Teach the rest as "shhh"; place it at different points within the clap exercises.

Play with PEAR and PINEAPPLE.

RGM - learn the symbol for CLAP. Start using RGM-online: [www.rgm-online.nl](http://www.rgm-online.nl)

### Lesson 3

Focus on walking music. Introduce the movement of BANG via demonstration/imitation (without symbol).

Train attention: exercises with combinations of bang - clap - rest + alternate on cue.

Introduce the rhythm of Bossa Nova + the concept of support text for memorization.

Combine clap-bang-rest with the Bossa Nova rhythm = rhythm stack.

RGM - learn the symbol for BANG. Introduce RGM-online as homework, Lesson 1, exercises 3 and 4.

### Lesson 4

Introduce left stomp + clap on thigh - right stomp + clap on thigh through demonstration/imitation.

Train attention with a rhythm stack: 1 claps the beat (Pear), 2 = rest-clap, 3 = bang-clap, 4 = left-right stomp + switch on cue. Combine with previous Bossa Nova rhythm.

RGM - learn symbols for BICK and TOEM. Introduce RGM-online homework, Lesson 2, exercises 1 and 3.

### Lesson 5

Review starting on your own in time; play with different tempos.

Review all movements from previous lessons through demonstration/imitation. Discuss difficulties.

If time/space allows, teach clapping with PEAR (quarter note/step) and APPLE (2 eighth notes as a fill for the quarter note). Combine with other exercises into a rhythm stack. Combine with metronome.

RGM - review all symbols; RGM-online Lesson 1 (exercises 2, 3, 4) and Lesson 2 (exercises 1, 3).

Musication on YouTube - Trepak, Can Can.

### Lesson 6

Introduce the Bolero rhythm + support text - experiment with self-created lyrics.

Rhythm stack: combine the Bolero rhythm with all other clap exercises; can also use resonating bars.

RGM - introduce symbol + movement for CHUM. RGM-online homework Lesson 3, exercises 1 and 2.

### Lesson 7

Attention: clap exercises with 2 groups + alternating instructions.

Alternate between 3/4 time - waltzing and 4/4 time - walking.

Review starting on your own in time + discuss any remaining difficulties.

RGM - create a chart with symbols in 3 and 4 boxes and 4 rows. Alternate on cue.

Introduce symbol and gesture for DENG; RGM-online Lesson 4, exercises 1, 2, and/or 3.

### Lesson 8

Use a chart like in Lesson 7; combine all symbols with claps from Peer - Apple. Play another rhythm stack, combine with resonating bars as a conclusion.

Use Pink Panther (2-part).

Discuss in RGM what people need to continue on their own. Lesson 4-4 as a challenge.



## TIMBRE: instruments & moods in music – programme

### *Learning Objective - the participant will learn:*

- To distinguish the timbres of instruments, which can be heard as the "colors of music."
- To recognize and name the atmosphere of music.

### *Why:*

- Learning to recognize instruments enhances the enjoyment of music.
- Listening to and discussing the atmosphere of music helps to sense and understand its mood.
- Paying close attention to subtle differences in timbre promotes attentive listening. CI users are often surprised by the details they can perceive.
- Promoting a sense of self-efficacy by experiencing the "bigger picture."

### *How:*

- Zooming in: examining and naming the details of instrument timbres with focused attention, using the question "how do you experience this sound?"
  - For example, distinguishing between piano and guitar, flute and violin.
- Zooming out: listening to the overall atmosphere of music and the complex whole, using the question "how do you experience this music?"
  - Example atmospheres: cheerful, menacing, exciting, lively, calm.
- Discussing sound qualities such as poor, moderate, good, clear, dull, etc., and explaining why.
  - Participants also discuss this among themselves and learn from each other.
- Providing visual support through YouTube videos and other resources.
- Gradually increasing the complexity of the music:
  - Start with one instrument and gradually introduce more instruments.
- Listening to participants' own music and exploring it together:
  - Different versions/covers with one instrument or multiple instruments.
  - Reading/learning lyrics.
- In Lesson 1, gather suggestions from participants and determine which music can be meaningfully used in each lesson.

### *Starting point:*

- Most participants have difficulty listening to music.
- Most participants have previously enjoyed music.

### *Learning outcome - the participant experiences or is able to:*

- Participants become more open to listening to music of their own preference.
- Participants feel capable of listening to and re-exploring music from the past and assessing their appreciation for it.
- Participants feel capable of exploring new music/genres. Note that not everyone may have a desire for this - some may feel they have "enough music from the past" in their minds.
- Participants can appreciate complex music (partially) and know how to find an entry point by feeling the beat, moving along, and focusing on the main instruments and melody.
- Participants experience more enjoyment of music by being able to perceive the timbres of instruments as the "colors of music."

## Timbre: instruments & moods in music – 8 lessons summary

### Lesson 1

Difference between piano and guitar: listen attentively and collectively answer the question "how do you experience this sound?" Participants note their own experiences.

Start with music on Spotify where the chosen instrument sounds solo.

Use YouTube videos as visual support. Include not only videos of instrumentalists but also music animations, such as piano tutorials or Synthesia.

Use the INSTRUMENTS Mindmap from Lesson 1 and fill in the characteristics that make the difference between instruments clear for each participant.

ATMOSPHERE: Exciting, chaotic, funny: "Modern Times" by Charlie Chaplin. Solo piano, sad (if time allows or as homework).

### Lesson 2

Difference between high-pitched instruments, namely flute and violin.

Note experiences in the Mindmap. Use specific YouTube videos with instrument animations.

ATMOSPHERE: Tense, menacing, intense visuals: "Adagio for Strings and Storm." (YouTube)

### Lesson 3

Difference between high and low voice/voice of a man and a woman.

Discuss the importance of lyrics and ways to follow them better.

Search for song lyrics using platforms like Musixmatch or the lyrics in Spotify.

Apply this to a simple Dutch song.

ATMOSPHERE: Joyful, calm, "sweet": "Sound of Music," do-re-mi.

### Lesson 4

Difference between low-pitched instruments, namely cello and clarinet.

Note experiences in the Mindmap.

ATMOSPHERE: Lively, funny. Compare the same music performed in very different ways:

"Thunderstruck" by AC/DC and the same song performed by Cello Boys.

### Lesson 5

Develop music from one participant: From this lesson onwards, one participant takes the lead in choosing the music to listen to. Explore various options, such as songs with lyrics, karaoke versions, and covers with different instruments. This allows participants to practice the "search strategy" needed to work independently with music of their own preference.

This approach also creates a diverse selection of music throughout the lessons. Participants learn from and with each other.

### Lesson 6

Elaborate music from one participant.

If desired: Using Ravel's "Bolero" (also mentioned in rhythm lesson 6), discuss all the prominent instruments. Share the YouTube link a week in advance as homework, along with a list of timestamps and the question of which instruments can be seen and heard.

ATMOSPHERE: Exciting, evocative: "Danse Macabre" by Saint-Saëns.

### Lesson 7

Develop music from one participant.

If desired: Introduce unfamiliar instruments such as Handpan, marimba: Does it sound better because you have no prior memories associated with it?

Karaoke + singing along: Does it work and when? How could you use it?

### Lesson 8

Develop music from one participant.

Include additional materials for homework, such as Band instruments with explanations, a music quiz, etc. Review everything noted in the INSTRUMENTS Mindmap.

## PITCH, melody & Melody Game – programme

### *Learning Objective – Participants will learn:*

- Perception of audible differences in pitch.
- Becoming aware of high and low sounds and how to label them.
- Becoming aware of the direction of successive pitches, i.e., ascending and descending.

### *Why:*

- Melody is what you hum and by which well-hearing people recognize music.
- Melody is often the most distinctive part of a musical piece.
- Melody carries the lyrics.

### *How:*

- Experiment with sound bars ("the individual 'keys' of a metallophone") by playing with different pitches, melodies, and harmonies.
- Encourage attentive tracking of a melodic movement (a short melody).
- Encourage participants to play melodies on the sound bars themselves.
- Facilitate group ensemble playing.
- Practice perceiving pitch differences and small melodies using the Melody Game.

### *Starting Point:*

- Most participants struggle with recognizing smaller pitch differences and following melodies.
- Not all participants are familiar with the concepts of high/low pitches or ascending/descending melodies, especially for CI users who have been severely hearing impaired for a long time.
- Most participants have been able to follow melodies in the past.

### *Learning Outcome – Participants will experience or be able to:*

- Increased awareness of pitch differences, the ability to perceive them, and the ability to follow the main aspects of a melody.
- Unfortunately, full recognition of melodies is often not possible.

Working with sound bars (the individual keys of a metallophone) in the lesson, the participants explore which pitch differences can be heard and named. For many participants, working with sound bars is a revelation. It often turns out that they can perceive more pitch differences than they initially thought. The collaborative exploration and exchanging of "what do I hear here" lead to wonderful conversations.

*I notice that as the difficulty level increases, such as speed, the auditory focus and concentration become more challenging. However, with more practice, it improves, which is a positive sign. It demonstrates the capability of the brain and .... practice makes (more) perfect 😊.*

## Melody Game – programme

### *Learning objective – the participant learns*

- Perceiving pitch differences and short melodies using the Melody Game.

### *Why:*

- Melody is a fundamental element of music. Being able to follow pitch differences (melodic contour) adds color to music.
- By improving the ability to follow melodies, which is different from recognizing melodies, music enjoyment can increase.
- It is valuable for participants to discover that they can perceive more pitch differences than they initially thought.

### *How:*

- By preparing the levels of the Melody Game playfully in class using tone bars. The exercises become more tangible for participants by playing them themselves.
- Play the Melody Game on a PC, tablet, or phone (not on a very old device).
- Discuss and practice the Melody Game during the lesson.

### *Game Setup:*

- Each melody is accompanied by a simple animation, such as a line along which a ball moves. Each melody is referred to as a "fragment."
- The game starts with a practice section where each fragment can be practiced.
- When the player feels they have practiced the fragments of their level sufficiently, they choose "stop practicing." Then the game starts. Depending on the chosen level, 2, 3, or 4 animations (images) are displayed, one of which is played. The player clicks on the animation they think they hear; the game indicates whether the answer is correct or incorrect.
- The Melody Game has 7 levels:
  - Distinguishing between 2 tones up to choosing between 4 melodies consisting of 9 tones.
  - Distinguishing between 2 images.
  - From levels 3 onwards: distinguishing between 3 or 4 images.
- Each level has 4 sub-levels:
  - Large intervals (between the tones) - slow tempo
  - Large intervals - fast tempo
  - Small intervals - slow tempo
  - Small intervals - fast tempo
- A level is completed by providing 10 correct answers within a specified time (30-60 seconds).
- The order of the levels can be chosen by the players.

### *Starting point:*

- Participants have no experience with the Melody Game.

### *Learning outcome - the participant experiences or can:*

- Perceive more pitch differences.
- Follow melodic lines better.
- Feel more confident when listening to music, especially regarding melodies.

## Pitch, melody & Melody Game – 8 lessons summary

### Lesson 1

Sound bars: Mix the sound bars together - ensure sufficient pitch differences. Experiment with hearing the differences. Note: What do you do if someone can't hear it? Use the Perfect Piano app on a phone.

Melody Game: Explain the login procedure. Introduce level 1: same - different; choose between 2 images. Discuss how to play the game, cursor placement, timer operation, when to click.

Explain how the PRACTICE and PLAY functions work. Participants have a choice. Better to practice a few times a week for a shorter duration than once for too long. Prefer to practice with enjoyment rather than play with too much frustration.

### Lesson 2

Sound bars: Discuss the concept of "higher/lower." Experiment with distinguishing differences. Play with and without looking. Games and sequences (High, Low, Same). Mix all the sound bars together, play two of them, remove the highest or lowest one. Arrange them in order. Sometimes small differences sound like "peh" or "puh" / louder - softer.

Melody Game: Level 2 - higher-lower-same; choose between 3 images. Practice together. Check if everyone has access and can play the game reasonably smoothly.

### Lesson 3

Sound bars: Play sequences of 5 tones/ sound bars UP - DOWN - FLAT (5 identical tones). Easier or harder? How many notes can you remember? Note: Is there a "bend" in the sequences? Give one participant 5 sound bars and give the other (3) participants 1 sound bar each. Have the 3 participants play a calm accompaniment together while the 4th participant plays sequences in a calm alternation. Can you hear yourself and the others at the same time? Playing, watching, listening.

Melody Game: Level 3 - up-down-same; choose between 3 images. Practice together.

### Lesson 4

Sound bars: Experiment with combinations of up-down ㄱ (‘mountain’) and down-up ㄴ (‘valley’). Play these "melodies" on 5 sound bars, where 5 identical tones are called "FLAT." One participant plays the contours, others write down what is being played. Discuss the outcomes. If possible, play an accompaniment. Watch LineRider and compare it to what you can play on the tone bars.

Melody Game: Level 4 - up-down-flat; 5 tones; choose between 3 images. Practice together.

### Lesson 5

Sound bars: Create new combinations of up, down, and flat (ㄱ—) (ㄴ—) (—ㄱ) (—ㄴ). Combine them with playing rhythms (e.g., pear-apple) and a "rhythm stack." Combine with time signature (low-high-high / low-high-low-high). Play 1 note per beat.

Melody Game: Level 5 - combinations of up/down with flat; 5 tones; choose between 4 images.

Challenge: Play level 4 or 5 every day, level 3, level 2 in about 15 minutes. What is the effect after 2 weeks?

### Lesson 6

Sound bars: Create combinations of 3 contours and play using 7 tones. Participants draw → notate, play, hear, sing. One participant plays what they came up with - do others hear what you intended? Draw pictures of it. Add bourdon? Add rhythm, time signature?

Melody Game: Level 6 - combinations of 3 contours; 7 tones; choose between 4 images. Practice together.

### Lesson 7

Sound bars: Experiment with free combinations of contours. Create "songs." One person plays slowly - the others tell what they hear. Demonstrate by watching what is being played. If it works well, try playing without watching. Connect with existing songs.

Melody Game: Level 7 - free, short melodies; 9 tones; choose between 4 images, but there are 6 variations.

**Lesson 8** Summarize what has been learned. Combine playing with sound bars with rhythm and time signature. Play Melody Game and discuss what is needed to continue playing/refreshing regularly.

## Music with lyrics – programme

### *Learning objective - The participant will learn:*

- To independently search for and practice song lyrics for better understanding.

### *Why:*

- Music with lyrics is very important for CI users, as the ability to enjoy music is strongly connected to being able to understand the lyrics. Once the lyrics are understood, they are usually understood consistently.
- Understanding song lyrics contributes to comprehending the meaning behind the music.
- For those who have experienced early hearing loss, songs are often perceived as "lyrics that can be understood with an annoying noise called music."
- Working with lyrics and music helps practice understanding in background noise situations.

### *How:*

- Start with simple songs in the participant's native language (e.g., Dutch).
- Provide the lyrics (on paper or in a separate screen on the computer), for example, through websites like [www.songteksten.nl](http://www.songteksten.nl).
- Search on YouTube for versions with "lyrics" or "text" displayed.
- Spotify often provides lyrics for songs as well.
- Listen repeatedly to a short section of a song, allowing the brain time to filter out the words from the music. Write down the lyrics that are understood, listen again, and fill in any missing words. Eventually, read along with the lyrics to understand the remaining words. Once you understand something, you will continue to understand it.
- Alternate between listening while reading the lyrics and listening without reading.
- Explain that "just understanding" can be difficult with a CI, especially for unfamiliar music. Discuss the impact of listening with one CI (and sometimes residual hearing) and how it affects the ability to distinguish lyrics from accompanying instruments. Success is partly dependent on residual hearing.

### *Starting Point:*

- Most participants have little to no experience in searching for lyrics as a support for understanding their preferred music.

### *Desired Learning Outcome - The participant will experience or be able to:*

- Independently search and find lyrics for their preferred music.
- Repeat their preferred music multiple times to improve the understanding of the lyrics. This helps practice speech understanding in background noise situations (in this case, music).

## Music with lyrics – 8 lessons summary

### Lesson 1

In this lesson, there is not yet enough time to work intensively with music and lyrics. Ask participants what they listen to, both in the past and currently, and what they would like to listen to. Answers can also be provided via email

### Lesson 2

Karin Bloemen - "Geen Kind Meer" (easily understood) on Spotify with lyrics.

### Lesson 3

Introduction of SIM\* - example from "Ja Zuster, Nee Zuster" with instruments.

Our example: "Ladumaar Meneer." Starts with a male voice (Leen Jongewaard - light voice), followed by a female voice (Hetty Blok - high voice). Chorus has multiple voices. The lyrics are available on Spotify.

In the "Ja Zuster Nee Zuster" playlist, there are more examples to listen to at home.

The chorus of "M'n Opa" has two overlapping sets of lyrics.

\*SIM can be found via Rumc but may not be freely available to everyone. Once SIM is offered in CI rehabilitation, it does not need to be discussed in Musi-CI.

In this lesson, there is a focus on high and low voices. Discuss helpful tools such as Musixmatch, lyrics in Spotify, [www.songteksten.nl](http://www.songteksten.nl), and demonstrate how to search for lyrics.

### Lesson 4

Guus Meeuwis - "Het is een Nacht."

The same song is available with piano and "blocks" (two versions, beautiful and dull), with guitar, and with lyrics.

### Lesson 5

Claudia de Brey - "Mag ik dan bij jou."

Use participants' input to search for their desired songs, including covers, and practice together. Encourage them to search on their own.

### Lesson 6

Jan Rot - "Ik was" (My Way).

Use participants' input to search for their desired songs, including covers, and practice together. Encourage them to search on their own.

### Lesson 7

Willeke Alberti - "Telkens weer" / Maaïke Ouboter - "Dat ik je mis."

Use participants' input to search for their desired songs, including covers, and practice together. Encourage them to search on their own.

### Lesson 8

Toon Hermans - "Zee zijn met de zee."

Brigitte Kaandorp + Toon Hermans - "Samen zijn we sterk" (duet).

Summarize what has been learned. Ask participants what they still need in order to successfully approach this aspect on their own. Use participants' input to search for their desired songs, including covers, and practice together.

Encourage them to search on their own.