

Sound and Music in Utero through Infancy

As early as in utero, sound plays a substantial role in our development and wellbeing as humans. Sounds of the amniotic fluid, the heart beat the mother's voice and other sounds outside of the womb can all be heard.

A baby in utero doesn't hear in the same way that we hear sounds as they are muffled by water, placenta and mothers tissues, so tone and volume play a big part in what babies can actually hear. The ears develop early in the gestation process, within the second month. By the 18th week the baby can hear and by 26 weeks that baby can recognize sounds and voices. Some of the most familiar and loud sounds are the mother's heart beat, breath, blood flowing most significantly the sound of the mother's voice.

Research has found that uterine sounds form a sound carpet over which the mother's voice in particular appears very distinct and which the fetus gives special attention to because it is so different from its own environment. These sounds are of major importance because they establish the first patterns of communication and bonding. Some researchers discovered that newborns become calmer and more-self regulated when exposed to intra-uterine sound.

But new research suggests that the best way of ensuring a happy and contented newborn is by singing to it while it is still in the womb. When a mother sings or tones her voice travels from the voice box through the spinal column and reaches the developing baby.

Numerous studies have been done where the heart of the fetus are soothed by music. Dr. Henry Truby, Emeritus Professor of Pediatrics and Linguistics at the University of Miami, states that after the sixth month, the fetus moves in rhythm to the mother's speech and that spectrographs of the first cry of an abortus could be matched with the mother's. The elements of music, namely tonal pitch, timbre, intensity and rhythm, are also elements used in speaking a language. For this reason, music prepares the ear, body and brain to listen to, integrate and produce language sounds." And because music is more accessible to children than phonics, it may have benefits in regards to literacy skills.

Mothers singing lullabies can improve maternal-infant bonding. A study of 160 women found that those who sang lullabies both during pregnancy and after giving birth had babies who spent significantly shorter periods crying. Around 170 pregnant women were split between those who were told to sing lullabies in the months immediately before and after birth and those who were not. The babies in the singing group generally cried 18.5 per cent of the time compared to 28.2 per cent of the time in the group who were not sung to.

<https://www.youtube.com/watch?v=gsdEK6Oxuc>

When parents sing repeatedly to their child, before and after birth, it is a once-in-a-lifetime opportunity to build a unique, meaningful and fun connection with their baby. The child already

knows and loves the song as sung by his or her parents more than any other song, sung by anyone else. Parents always have their voice with them and can use it to comfort, soothe, and play with their child for years to come.

Simple steps to singing to the baby in utero and after birth

1. Choose a song that you like and is easy for you to sing. It might be a lullaby or a children's song, but it does not have to be. It can be one of your favorite songs, or a popular song of the day.
2. Sing it every day. Both parents can sing it together, but each of you should also sing it alone much of the time. It can be played with a musical instrument some of the time, but it also should be played without an instrument much of the time.
3. When your baby is born, after the initial lung-clearing cry, sing the song to your baby. The baby can be in your arms or with a nurse in the warmer. If your baby is crying, try to sing close to his or her ear or loud enough that he or she can hear it at least during the pauses to take a breath.
4. Continue singing it every day, especially during times when your baby is crying (and has been fed; don't use it as a substitute for feeding!).
5. Sing it when bathing or diapering your baby, when soothing or helping your baby go to sleep.
6. Sing it when your baby is upset and you can't pick them up, such as when driving in the car and you can't stop and take the baby out of the car seat, or at a checkup, if the doctor is doing something painful

Sound healing and music can continue to support a child through infancy and the more healing sounds and songs they are exposed to the more they will respond positively to it. I have found that music and sound in the nursery where I work helps to maintain a calm and relaxing environment for the babies to be in. I find that music and soothing sounds help the babies to focus their energy and can be meditation to the babies especially before bed time.

I have experimented using sound with babies in my childcare 3-16 months of age. One child who is nine months responds very well to sound. She has strong attachment bonding with her mother that causes anxiety when she leaves the room. I use high pitched bells, usually two or three different notes and make up a little song with them and she immediately stops crying and focuses her attention on the sound. In this video clip I experiment with singing bowl. Here you can see how the babies attention is very focused and their energy is fairly calm. One of the babies Winslow almost always falls asleep when I play music. The sound of singing bowls is good for all age groups, including infants. Children respond very well to the sound of singing bowls, even a very active child is able to relax or fall asleep during a session. It is important for all of us and especially children to be able to stop and relax in a safe space.

It is evident the sound has a large impact on a child's early development and is supportive for soothing, calming, and healing both babies and parents. I feel inspired to support families using sound healing as they transition into parenthood, supporting them deepening in their connection with their child, and finding balance and relaxation through the birthing process.