



**NATIONWIDE CHILDREN'S**  
*When your child needs a hospital, everything matters.™*

**Helping Hand™**

*Health Education for Patients and Families*

## **Creating a Purposeful Auditory Environment**

From birth to age two, interacting with others is how a baby learns to communicate. By creating a purposeful auditory environment, you can protect and help your child's brain development.

Communication in babies comes from the sensory input they give and receive. This includes singing, reading books and talking about what you, and your baby, are thinking or doing. These actions aid in communication and provide calming that may help children sleep.

### **Stimulate the brain for learning**

**Talk about what your baby is doing.**

Babies prefer voices they hear most, usually those of their caregiver(s).

- When children are awake, they like to hear familiar words about the world around them. This promotes language development and bonding.
- Talk about what is happening around you. Talk about what your baby is doing or might be thinking.
- Read books and share pictures. It is never too early to start reading to your child.
- Your baby may not understand what you are saying, but they can start to pick up the rhythm and tone of your voice. This helps them begin making their own sounds.

### **Sing or play music**

Sing to your baby is when they are quiet, alert and calm. Music can also be another way to connect with your baby during diaper changes, just before bedtime or when they are fussy. Music can help after painful or stressful procedures.

## Things to remember

- Change the type of music to keep your child's interest, increase learning and avoid listening fatigue.
  - The best live music for your child is singing that the child enjoys. Any song will do, as long as it is not too loud, startling, or repeated for too long.
  - Whether live or recorded, keep it simple. Music should feature:
    - one voice
    - one instrument
    - steady rhythm
    - constant volume
- Volume is important.
  - Devices should not exceed 80dB. For reference, normal conversation takes place around 60dB. If you cannot have a casual conversation over the music, it is too loud. Most devices have a volume limit that can be set to reduce exposure to loud sound levels.
  - Avoid using most headphones or earbuds to play music for children. It is hard to keep a constant noise level low enough to protect their ears.
  - Hearing protection devices (i.e. earplugs/earmuffs) such as those you wear at a band concert or sports events are okay. Avoid headphones labeled “noise-cancelling” as they are not often designed to protect hearing.
- Balance music with quiet time to avoid too much stimulation
  - Do not play music all the time. Learn the signs that it is time to turn the music off and give your baby a quiet break. Too much stimulation can make children tired, disrupt their sleep and can slow down development.
  - Turn the music off for 20 to 30 minutes every 1 to 2 hours. Give your baby quiet time to rest and relax.
  - Limit sounds to one device at a time. Reducing the number of competing sounds allows your baby's developing brain to better process everything going on around them.
  - Turn off music or sounds when:
    - other devices are playing
    - area is noisy
    - the baby has fallen asleep.
- Do not play white noise, nature sounds or musical toys mobiles. These devices usually repeat sounds and the volume and length cannot be controlled.

## Behavioral signs of stress

Behavioral signs of stress or overstimulation include:

- frequent yawning
- startle reflex
- grimace, red face
- crying
- finger splay, hand halt (fingers spread out or hand out to signal stop)
- sticking out tongue
- hiccups
- sneezing
- not making eye contact
- turning head or gaze away from caregiver's face

If your child starts showing behavioral signs of stress, reduce the amount of things going on around them. Let them calm down before returning to the activity.

Protecting your baby or toddler's auditory environment while they are young can help build a strong base for success as they grow!