

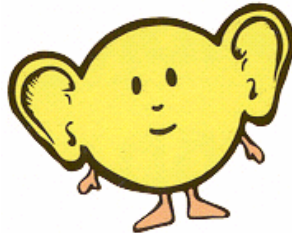
AUDITORY SYSTEM

THE RECEPTORS FOR THE AUDITORY SYSTEM ARE LOCATED IN THE INNER EAR. THESE RECEPTORS ARE STIMULATED BY AIR WAVES. THEY SEND INFORMATION ABOUT SOUNDS IN THE ENVIRONMENT TO THE BRAIN FOR INTERPRETATION.



Using the Auditory System to Change Arousal Levels

Just as with any other sensory system, the auditory system can be used as a means to change one's level of arousal. Auditory sensations can have an alerting or calming effect. Loud, quick, unpredictable noises tend to be more alerting. Slow, rhythmic noises tend to be calming. Think about those long driving trips in which you might turn on loud rock and roll music to stay awake. The quick beat and loud noise are much more alerting than the quiet, rhythmic sounds of classical music. On the other hand, think of putting a baby to sleep — a softly repeated lullaby often does the trick. Planned auditory input can have an effect on a child's performance in the classroom or home setting. Playing classical music during study hall or homework



time may provide the auditory input needed to complete a math assignment. Listening to a quietly read story may prepare a young child for bedtime. Headphone might provide a quiet environment for completing class work. By examining the environment, auditory input can be planned and used to help maintain an effective arousal level for learning and doing.

Alerting Activities

- 🔔 Provide music with varied pitch, sound, loudness or uneven/fast beat
- 🔔 Speak with animated, high and low voice
- 🔔 Provide frequent opportunities to examine novel sound producing toys — rain stick, squeeze toys, electronic toys, musical instruments, whistles
- 🔔 Utilize sound producing materials to complete classroom projects — talking calculator, books on tape, or "Yak-Back" for verbal directions

Calming Activities

- 🎵 provide quiet music with slow, even beat
- 🎵 sing or hum softly to the student
- 🎵 Allow the student to cover ears with hands when confronted with a loud or unexpected noise
- 🎵 speak in a monotone voice or whisper
- 🎵 provide a quiet work environment
- 🎵 Utilize headphones or ear plugs to shield from background noises or distracting sounds

Hints for Auditory Sensory Input

- 🎵 Prepare in advance for loud/strange noises
- 🎵 Quick, loud sound is ALERTING
- 🎵 Slow, rhythmic sound is CALMING
- 🎵 Examine the environment for sounds that may be distracting

