

DREAMIES®

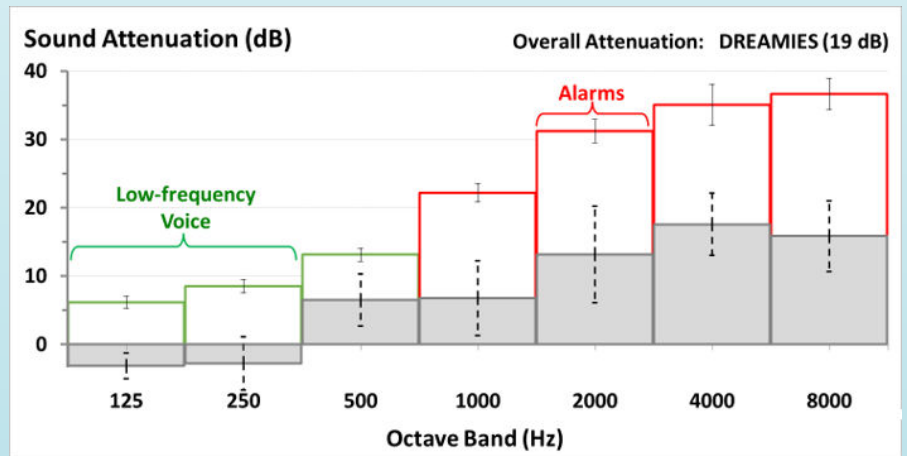
Advanced Hearing Protection for Hospitalized Newborns and Infants



Excess NICU noise has been associated with physiological instabilities in infant heart rate, respiratory rate, blood pressure, and blood oxygenation, as well as disrupted sleep, and is a suspected contributing factor in neurodevelopmental delays in NICU graduates.¹⁻⁵

NEATCAP® DREAMIES® offer a unique solution to the problem of noise exposure for NICU patients.

The DREAMIES device simulates the type of noise protection a baby would naturally experience inside mother's body during pregnancy.⁶ DREAMIES materials and design preferentially block high frequency noises such as monitor alarms,⁷ while still allowing some transmission of beneficial low frequency sounds from human voice.⁸



Sound attenuation of DREAMIES device (white bars) compared with pregnant sheep (shaded bars, adapted from Reference 6) - a common animal model of maternal-fetal interactions.

DREAMIES Sound Attenuation

	Overall	Frequency (Hz)						
		125	250	500	1000	2000	4000	8000
Mean (dB)	19.0	6.1	8.5	13.1	22.2	31.2	35.1	36.6
SD	1.2	1.1	1.3	1.2	1.6	1.7	2.9	4.3

- Provides overall sound reduction of 19 dB
- Reduces noise by over 20 dB in the frequency range of NICU alarms

Relax, Sleep, Dream. Findings of a clinical study conducted in a major Regional Women's Hospital Level III NICU suggest DREAMIES may help improve physiologic activity and promote sleep.^{9,10}



Designed for Comfort and Ease-of-Use

- *Chiral, contoured, low-profile, transparent,* soft foam sealing ear cups
- *Adjustable,* soft, stabilizing headband to secure ear cups
- *Easy-to-fit and remove* with Velcro closure
- *No skin-contacting adhesives* to irritate skin
- Allows for inspection of fontanelles
- Compatible with NICU routine care protocols
- Single Patient Use
- *Progression of Sizes* from XS for small preemies to XL for children up to 2 years



US Pat. 10,413,696, 11,185,447 and patents pending

DREAMIES Sizing Reference Chart			
Catalog P/N	OFC	Headband	Ear Cups
NEAT004-01	23–27 cm	XS (23–27 cm)	XS (30mm)
NEAT004-02	27–31 cm	S (27–31 cm)	S (35mm)
NEAT004-03	31–35 cm	M (31–35 cm)	M (40mm)
NEAT004-04	35–41 cm	LG (35–41 cm)	LG (45mm)
NEAT004-05	41–48 cm	XL (41–48 cm)	XL (50mm)



Refer to Instructions for Use for Warnings and Precautions. Rx Only.

References

- 1 JG Long et al. Noise and Hypoxemia in the Intensive Care Nursery, Pediatrics 65 (1980) 143-145.
- 2 P Bremmer et al. Noise and the premature infant: physiological effects and implications., J. Obstet. Gynecol. Neonatal Nurs. 32 (2003) 447-454.
- 3 G Brown, NICU Noise, Neonatal Netw. 28 (2008) 165-173.
- 4 MG Monsén et al. Noise and sleep disturbance before and after behavioural modification programme, Intensive Crit. Care Nurs. 21 (2005) 208-219.
- 5 SN Graven, The full-term and premature newborn: Sound and the developing infant in the NICU, J. Perinatol. 20 (2000) S88-S93.
- 6 KJ Gerhardt et al. Sound environment of the fetal sheep, Am. J. Obstet. Gynecol. 162 (1990) 282-287.
- 7 JL Darbyshire et al. Mapping sources of noise in an intensive care unit, Anaesthesia. 74 (2019) 1018-1025
- 8 G Albertini et al. Spectral analysis of the human voice: A potentially useful tool in rehabilitation, Eur. J. Phys. Rehabil. Med. 45 (2009) 537-545.
- 9 Clinicaltrials.gov Report #NCT02744066.
- 10 MJ Balsan et al "A pilot study to assess the safety, efficacy and ease of use of a novel hearing protection device for hospitalized neonates," Early Human Devel. 156 (2021) 015365.

