

# Hearing Protection



## Safety Measures for Radiologic Technologists in the MR Environment

- **Wear Hearing Protection:** All individuals in Zone 4 during active scanning must wear one or more forms of hearing protection.
- **Choose the Right Gear:** Use MR-safe hearing protection for comfort and to reduce noise below 99 dB(A).
- **Ensure Proper Fit:** Follow the manufacturer's instructions for wearing hearing protection devices.
- **Inform Patients:** Explain MR noise levels and the importance of hearing protection.
- **Know the Risks:** Train staff on safe practices in high-noise environments and the importance of hearing protection.



## Key Facts

- **MR Equipment Noise Levels:** Can reach 130 dB — as loud as a jet engine.<sup>1</sup>
- **Safe Listening Levels:**  $\leq 80$  dB for adults,  $\leq 75$  dB for children.<sup>2</sup>
- **Protected Hearing:** Effective hearing protection can reduce active scanning noise by up to 28-30 dB(A).<sup>1</sup>
- **Unprotected Hearing:** Hearing damage can start at 85 dB. Noise levels  $>120$  dB can cause immediate hearing loss.<sup>3</sup>

