

# ENVIRONMENT AND NOISE • 1/1

## ENVIRONMENT

### Lighting

Excessive and rapid changes in light levels may cause physiological instability, disturbed sleep and interfere with visual development. The thin eyelids of preterm babies may allow significant light to penetrate even if eyes closed

Aim	Method
<ul style="list-style-type: none"> <li>• Provide flexible lighting to meet individual developmental needs and caregiver's needs</li> <li>• Ensure sufficient lighting for observation and care delivery</li> <li>• Promote optimal extra-uterine development and physiological stability</li> <li>• Reduce stress</li> <li>• Protect sleep</li> <li>• Development of normal circadian rhythms</li> </ul>	<ul style="list-style-type: none"> <li>• Keep lighting levels around 200–300 lux (moderate room lighting)</li> <li>• Monitor and audit light levels in nursery and baby's immediate environment regularly</li> <li>• Daylight is preferable to artificial lighting. Protect babies from direct sunlight</li> <li>• Avoid direct bright light during feeding</li> <li>• Use dimmer switches and avoid sudden changes in light levels</li> <li>• Use incubator covers or canopies for preterm, sick or neurologically compromised babies                             <ul style="list-style-type: none"> <li>• keep a corner/flap up to allow safe observation</li> </ul> </li> <li>• Protect babies in open cots from bright light until near term (37–40 weeks)</li> <li>• Use night lights for development of day–night cycle</li> <li>• Use individual task lighting for care and procedures. Shade baby's eyes throughout</li> <li>• Protect babies from phototherapy and bright lights in other bed spaces</li> <li>• Promote appropriate visual interactions with parents/carers</li> <li>• Protect babies from bright light for ≥18 hr following ROP screening</li> </ul>

## NOISE

- High levels of sound may cause:
  - baby distress
  - sleep disturbance
  - damage to hearing
  - impaired language and speech development
- A noisy environment affects behaviour and wellbeing of adults present, with impact on confidentiality, communication, stress levels and the ability to concentrate, make decisions and perform fine motor tasks

Aim	Method
<ul style="list-style-type: none"> <li>• Promote optimal extra-uterine development and physiological stability</li> <li>• Protect sleep</li> <li>• Maintain confidentiality and privacy</li> <li>• Promote normal speech and language development</li> <li>• Provide appropriate working environment</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor noise levels in nursery and baby's immediate environment</li> <li>• Maintain ambient noise levels at 45 dB, with occasional peaks of 70 dB</li> <li>• Observe baby's cues to ensure noise levels do not indicate stress</li> <li>• Open packaging outside incubator</li> <li>• Keep monitor alarms and telephone ring tones at quiet but safe audible levels (silence alarms quickly)</li> <li>• Empty 'rainout' from ventilator tubing as soon as possible</li> <li>• Turn off suction when not in use</li> <li>• Close incubator doors and bins gently</li> <li>• Cover incubators of preterm, sick and neurologically compromised babies, leaving 1 corner exposed to view baby</li> <li>• Keep conversations away from babies and speak quietly</li> <li>• Encourage parents/carers to speak softly to their babies</li> <li>• Maintain quiet environment during oral feeding</li> <li>• Only use radios, portable music devices, musical toys etc. when clinically indicated and ensure other babies are not disturbed</li> <li>• Promote ≤1 'rest time' per day. Lower light and noise levels and suspend all routine procedures/ward rounds. Leave babies undisturbed to facilitate sleep. Encourage parents to view this as a quiet time to spend with baby</li> <li>• Reduce noise level as much as possible</li> <li>• Educate staff and parents regarding benefits of a quiet environment</li> </ul>