

Assessing Sensory and Motor Block

SENSORY BLOCK:

4 Hourly or more often if the child is in pain

A degree of sensory loss at the dermatome level of the epidural catheter (that is in the region(s) of expected analgesia or around the operative site) is the goal when using epidural local anaesthetics to provide effective pain relief.

If block is one-sided turn the child onto the side that is not blocked.

TESTING SENSORY LEVEL OF BLOCK

Questions to ask: Is the child pain free? If child is comfortable no need for action

- Test block level using frozen ice cube or frozen plastic vial water or an alcohol swab.
- Begin at the expected level of block (apx 5cms above wound) and work down 2-4cms until below expected level of block.
- Repeat on both sides of the body.

Ideally the child should have an insensitive band of skin above and below the wound.

Non-Verbal child or child with Intellectual disability

- The child may squirm or flinch or make a face in response to ice test.
- Another method is to observe the child's response to movement or gentle palpation of the operative site.

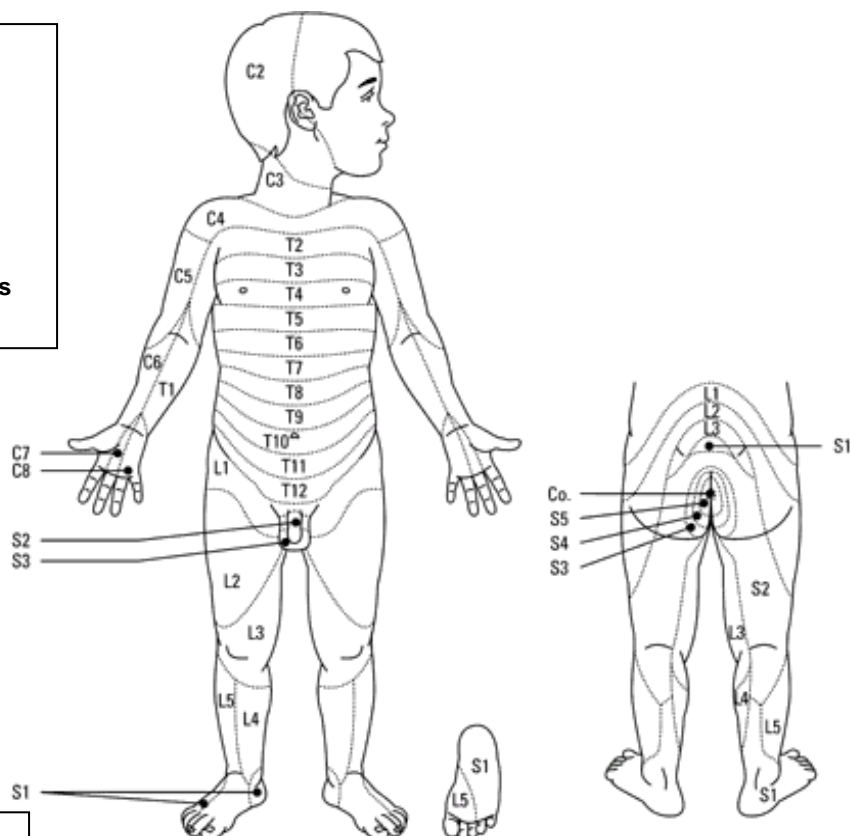


Diagram. ©Pain service, Royal Children's Hospital, Melbourne, Australia. Used with permission 2011

Motor Block: at least 4 hourly on both sides of the body

Observe the infant or ask the child to flex their knees and ankles.

Bromage 3: Stop infusion and contact Pain team, (CNS, or anaesthetist on call)

Reassess leg strength every 30 minutes

Bromage 2: Reduce infusion rate by 0.1ml/kg/hr every 12 hours

Bromage 1: Observe 2 hourly

Bromage 0: No intervention required. Patient may mobilize with supervision

NB for a child in a hip spica this score can be modified as follows:

2 = Child is able to move toes and feet

3 = Child unable to move toes or feet

N.B The child's normal level of motor function should be considered when making these observations (e.g. in the case of children with cerebral palsy this may be altered).

To assess motor nerve block in the upper limbs: Explain procedure to the child or young person.

- Ask the patient to grip your hand, then to raise their arms.
- Assess for any paraesthesia (loss of sensation/numbness in the hands or arms).
- **An unduly high motor block is indicated by loss of power, voluntary movement or sensation.**
- Document the degree of motor nerve block in clinical records (use the comments section on the epidural record)
- If there are any signs of paraesthesia (sensation of tingling, pricking, or numbness) or loss of motor function, stop the infusion and contact the pain team.



Bromage 3 (complete)
Unable to move feet or knees



Bromage 2 (almost complete)
Able to move feet only



Bromage 1 (partial)
Just able to move knees



Bromage 0 (none)
Full flexion of knees and feet