Increasing Intracranial Pressure

-Warning Signs to Report to the Provider
(Campellone & Kent Turley, 2020)

- ☹ **Mental status changes***
- ☹ **Constant headache**
- ☹ **Blurred vision**
- ☹ **Cheyne-Stokes respirations**
- ☹ **Vomiting**
- ☹ **Seizures**

-Important Patient Teaching for Prevention
(Altun Ugras et al., 2018)

- ☺ Avoid Valsalva maneuvers
  - Coughing
  - Holding breath
  - Bearing down during bowel movement
- ☺ Relaxation techniques to relieve stress
  - Breathing
  - Guided imagery
- ☺ Lie still on back
  - No abrupt movements
  - Avoid bending of the neck
- ☺ Body cooling techniques
  - Light bedding
  - Minimal clothing layers
- ☺ Immediately report any of the indicators above

**The earliest indicator*

References

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Advanced Nursing Neurological Assessment: Post-Operative

St. Vincent's Medical Center
Medical/Surgical ICU

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Orientation & Memory
(NeuroCritical Care Society, 2020)

- ✓ Ask patient to state full name, current location, and the current date
  - Documentation
    - **"Alert & oriented to person, place, and time" or "A&O x 3"**
- ✓ **Recent memory**
  - Name 3 items
  - Ask the patient to recall the 3 items after a delay of 3-5 minutes
- ✓ **Remote memory**
  - Ask patient about historical or verifiable personal events

Glasgow Coma Scale (GCS)
(Seng et al., 2017)

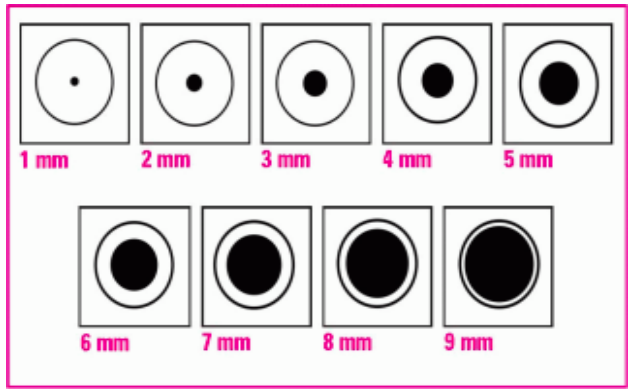
Component	Response	Score
Eye opening response	Spontaneous	4
	To voice/sound	3
	To pressure/pain	2
	None	1
Verbal response	Orientated	5
	Confused	4
	Words	3
	Sounds	2
	None	1
Motor response	Obeys commands	6
	Localizing	5
	Flexion withdrawal	4
	Abnormal flexion	3
	Extension	2
	None	1

- Documentation: **≤ 15**
- GCS **≤ 8** - closely monitor intracranial pressure

Cranial Nerves Assessment: Part 1
(NeuroCritical Care Society, 2020)

- ❖ **Cranial Nerve I: Olfactory**
  - Identify a smell
    - Coffee, peppermint, soap
- ❖ **Cranial Nerve II: Optic**
  - Visual acuity testing
    - Snellen Chart
  - Funduscopic exam
    - Optic disc and blood vessels
  - Visual field testing
    - Confrontation from periphery
- ❖ **Cranial Nerve III: Oculomotor**
  - PERRLA
    - Pupils equal round and reactive to light **use size chart below*
  - Extraocular movements (EOMs)
    - Medial, upward (in & out), downward (out)

Pupil Assessment
(Jennilee St., 2015)



- Normal findings
  - PERRLA
  - Size: 2-6 mm

Cranial Nerves Assessment: Part 2
(Maher, 2016)

- ❖ **Cranial Nerve IV: Trochlear**
  - EOM (downward and in)
- ❖ **Cranial Nerve V: Trigeminal**
  - *Motor:* clench jaw and chewing
  - *Sensory:* soft and sharp sensations on 3 divisions of face – ophthalmic, maxillary, mandibular
- ❖ **Cranial Nerve VI: Abducens**
  - EOM (lateral)
- ❖ **Cranial Nerve VII: Facial**
  - *Motor:* facial movements including expression
    - Smile, frown, puff out cheeks, raise eyebrows **note asymmetry*
  - *Sensory:* taste of anterior 2/3 of tongue
- ❖ **Cranial Nerve VIII: Vestibulocochlear**
  - *Rinne's Test* – ability to hear vibrating tuning fork held next to the ear and placed on mastoid process
  - *Weber Test* – ability to hear a tuning fork through Right and Left ear
- ❖ **Cranial Nerve IX: Glossopharyngeal**
  - *Motor:* swallow, gag reflex (both sides)
  - *Sensory:* taste of posterior 1/3 of tongue
- ❖ **Cranial Nerve X: Vagus**
  - Say "ahh"
  - Note location of uvula and monitor for deviation on movement
- ❖ **Cranial Nerve XI: Spinal Accessory**
  - Shrug shoulders against resistance
  - Move head Left and Right against downward resistance
- ❖ **Cranial Nerve XII: Hypoglossal**
  - Open mouth and protrude tongue
  - Move tongue side to side