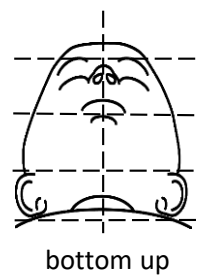
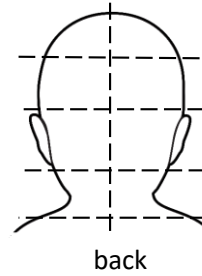
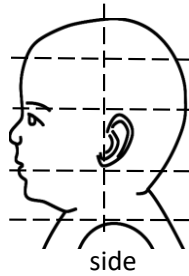
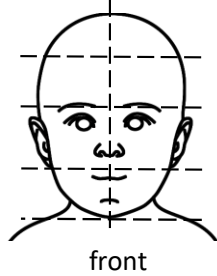
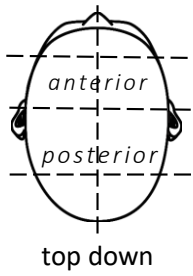


Screen for head, face, and neck symmetry (*visualize; measure with calipers*)

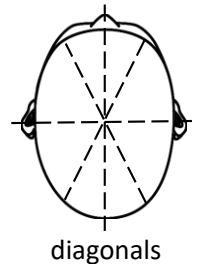
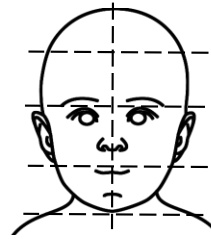
1. **PROPORTION - Cranial Index (CI)** $Width \div Length \times 100$; also called *Cephalic Ratio*
2. **ALIGNMENT - Cranial Vault Asymmetry (CVA)** also called *Diagonal Difference*



Note: illustrations do not depict all possible combinations of asymmetry.

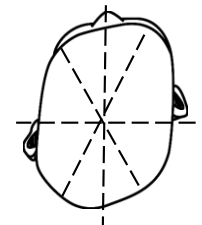
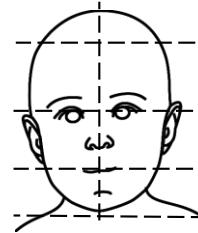
Normocephaly

- **CI: >76% to <90%**; proportion within normal limits (WNL); skull quadrants are relatively equal
- **CVA: 0mm to 5mm**; diagonal difference WNL; cranial and facial landmarks appear even, aligned



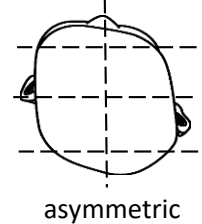
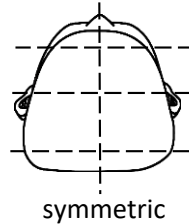
Plagiocephaly

- **CI: >76% to <90%**; **CVA: >5mm**; severe >10mm
- skull flattening in one area (*anterior or posterior*) with a compensatory bulge (*bossing*) in another area
- rule out craniosynostosis, facial bone or neck muscle involvement



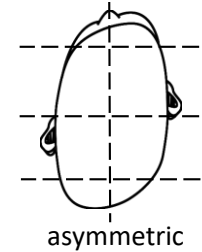
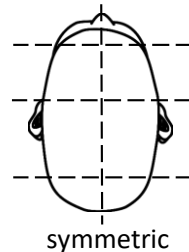
Brachycephaly

- **CI: >90%**; disproportional; short wide skull; may include occipital flattening; parietal/temporal widening
- may be **symmetric** (CVA WNL), or **asymmetric** (CVA >5mm)
- rule out suture synostosis (*coronal, lambdoid*)



Dolichocephaly (*called scaphocephaly before ICD-10*)

- **CI: <76%**; disproportional; elongated, narrow skull
- may be **symmetric** (CVA WNL), or **asymmetric** (CVA >5mm)
- rule out suture synostosis (*metopic, sagittal*)



Torticollis, or neck muscle asymmetry

- neck muscle shortened, tightened from injury (*congenital or acquired*)
- often involves sternocleidomastoid muscle (SCM) or trapezius muscle
- highly correlated with plagiocephaly; usually treated with exercise
- may include weak neck muscles; limited range of motion; head tilt; positional preference; shoulder hike on involved side; face rotation to uninvolved side

