At what age might the craniofacial sutures be expected to start closing?

Craniofacial Anatomy | Aging | Sutures | Growth and Development

- Childhood (3-5 years)
  - Premaxillary-Maxillary Suture
    - Facial aspect closed in most children (Behrents & Harris)
- Adolescence (15-18 years)
  - Midpalatal & Transverse Sutures
    - Begin closure; significant variation (Persson & Thilander)
    - Growth evident until 16 (girls), 18 (boys) - Melsen study
  - Sutural Complexity Increases
- Young Adulthood (Late Teens - Early 30s)
  - Sagittal, Coronal, Lambdoid Sutures
    - Begin to show closure in some individuals (Todd & Lyon)
  - Midpalatal & Transverse Sutures (some individuals)
    - Closure may be delayed into this period (Persson & Thilander)
- Middle Adulthood (30s - 40s)
  - Sagittal, Coronal, Lambdoid Sutures
    - Most individuals show signs of closure (Todd & Lyon)
- Older Adulthood (60+ years)
  - Cranial Sutures
    - Closure may continue into this stage (Todd & Lyon)
  - Frontozygomatic Suture
    - Bony union unlikely before this age (Kokich)
- General Considerations
  - Measurement Methods Vary
    - Gross examination, histological sections, microradiography
  - Significant Individual Variation
    - Genetic and environmental factors influence closure timing.
  - Partial Fusion Common in Adults (3-7%)