

2. CHU, JONATHAN¹, SAM MOORE¹, SHADI BASYUNI¹, CHERRY CHANG², KRISHNA PATEL², CECILIA BRASSETT¹ and VIJAY SANTHANAM², ¹Human Anatomy Teaching Group, Department of Physiology, Development and Neuroscience, University of Cambridge, UK; ²Consultant in Oral and Maxillofacial Surgery, Addenbrooke's Hospital, Cambridge University Hospitals NHS Foundation Trust, Cambridge, UK. **What is an "Average" Chin?**

The chin is a unique feature of the human face, and its presence is a key characteristic in determining aesthetic appearance. Genioplasty, surgical alteration of the chin through osseous manipulation or implant augmentation, is an integral component of cosmetic facial surgery. However, no objective criteria exist regarding what constitutes an "average" chin. This study aimed to investigate chin morphology and its relationship to other craniofacial features through retrospective analysis of 231 lateral cephalograms. For each image, the angle between three landmarks, the B point (most concave point on the mandibular symphysis), nasion (N) and pogonion (Pg), was measured to generate 'BNPg', a novel unit to quantify bony chin protrusion. The mean BNPg from all samples was 1.12 degrees (SD \pm 1.35), with no significant differences between the sexes ($P=0.108$). BNPg was found to strongly correlate with soft tissue chin protrusion: B'NPg' ($r=0.731$), but there was no correlation of BNPg with ANB (measurement of skeletal malocclusion, the relative protrusion of one's jaw in Steiner's Analysis) ($r=0.085$). These results suggest that the embryological mechanisms involved in chin development may be independent of those driving mandibular growth, and thus, in clinical practice, recommendation for genioplasty should be distinct from the need for orthognathic surgery.