

Dentofacial Deformities: Preferred Terms

Alar crease junction (ACJ) – It is the most posterior point of the curved line formed by the alar crease as seen in profile view, it is utilized as a landmark for measuring tip projection.

Anterior Nasal Spine – The most anterior point in the traced maxilla (tip of the nasal spine). It is a cephalometric reference point.

Cephalometric tracing - The pencil drawing obtained by tracing from a cephalogram, onto an acetate matte paper, the outline of some of the anatomical structures like teeth, facial and cranial bones, and soft-tissue profile.

Cheekbone point (CP) – In a subject with a balanced middle facial third, it is the apex of osseous cheekbone that is located 20 to 25 mm inferior and 5 to 10 mm anterior to the outer canthus of the eye when viewed in profile and is 20 to 25 mm inferior and 5 to 10 mm lateral to the outer canthus of the eye when viewed frontally. A flat cheekbone point is often associated with malar deficiency and maxillary hypoplasia¹.

Chin deficiency – It refers to a lack of anterior projection of the chin outline.

Chin Pad – The thick soft tissue overlying the bony chin.

Condylion (Co) – The most posterosuperior point on the outline of the mandibular condyle seen on lateral cephalograms. It is a cephalometric reference point.

Crossbite – When one or more of the maxillary teeth are lingually (internal) positioned relative to the respective mandibular teeth. The anterior crossbite is also called reverse overjet.

Dental Classes – The classification of sagittal relationship between the dental arches.

Class I: normal postero-anterior relationship between the two dental arches. **Class II:** too anterior upper dental arch and/or too posterior lower dental arch. **Class III:** too posterior upper dental arch and/or too anterior lower dental arch.

Dental crowding – The absence of alignment between adjacent teeth. It is usually graded from mild to severe crowding.

E-line (Esthetic line) – A reference line connecting the tip of the nose to the most anterior point of the chin contour (soft-tissue Pogonion).

Glabella (Soft-Tissue Glabella) – The most prominent anterior point in the midsagittal plane of the forehead. It is influenced by pneumonization of the frontal sinus and varies widely in postero-anterior position.

Gnathion (Gn) – The most anteroinferior point on the outline of the mandibular symphysis seen on lateral cephalograms. It is a cephalometric reference point.

High/Low Mandibular Plane Angle – The excessive clockwise (high) or counterclockwise (low) rotation of the mandibular plane. The high mandibular plane angle is correlated with the hyperdivergent facial pattern and the **long face**; the low mandibular plane angle is correlated with the hypodivergent facial pattern and the **short face**.

¹Warning, in chapter 7, CP is the abbreviation utilized for corneal plane.

Hyper/Hypodivergent Facial Pattern – The increased (hyperdivergent) and decreased (hypodivergent) anterior facial height in relation to the posterior facial height (see also High/Low Mandibular Plane Angle).

Labiomental Fold (Mandibular sulcus contour) – The horizontal skin depression that separates the chin from the lower lip. It varies from a flat curve to a deep sulcus.

Labrale Inferius (Li) – A point indicating the mucocutaneous border of the upper lip. The most anterior point of the upper lip (usually). It is a cephalometric reference point.

Labrale Superius (Ls) – The median point in the lower margin of the lower membranous lip.

Lip support – The action of the anterior teeth and their surrounding alveolar bone in shaping the lips.

Dentoalveolar Protrusion/Retrusion – It is the abnormal forward (protrusion) or backward (retrusion) position of the teeth and their alveolar bone in respect to the basal bone of the jaws. It can involve the maxillary and/or mandibular dental arches.

Malar Eminence – The point of maximal outer projection of the malar region.

Mandibular Deficiency – The hypoplasia of the whole mandible. It is the most common cause of class II dentofacial deformities.

Mandibular Plane – It is a cephalometric reference plane constructed by drawing a line tangent to the traced mandibular border.

Maxilla point (MxP) – It is the most anterior point on the continuum of the cheekbone-nasal-lip contour described by Arnett and Bergman and is an indicator of maxillary antero-posterior position.

Maxillary Plane – It is a cephalometric reference plane constructed by drawing a line passing through the Anterior Nasal Spine and the Posterior Nasal Spine on the traced maxilla.

Menton (Me) – The lowest point on the symphyseal shadow of the mandible seen on lateral cephalograms. It is a cephalometric reference point. **Soft-tissue menton (Me)**

– The lowest point on the contour of the soft-tissue chin. Found by dropping a perpendicular line through skeletal menton. It is a cephalometric reference point.

Microgenia – This term refers to an underprojected chin independently from occlusal consideration

Muscle Strain – It is the flattening of the chin outline due to muscular contraction produced to achieve lips seal. It is a frequent finding in many dentofacial deformities (dental and skeletal open bite, dental and skeletal class II).

Nasion (N) – The most anterior point on the frontonasal suture in the midsagittal plane. It is a cephalometric reference point. **Soft-tissue Nasion (N')** – The point of greatest concavity in the midline between the forehead and the nose.

Neck-throat Point (NTP) – The more posterior-superior point of the submental-neck outline.

Occlusal plane – The line bisecting the overlapping cusp of the first molars and the incisal overlap.

Overbite – The vertical overlap of the incisors obtained when the two dental arches occlude together. **Deep Bite** – Excessive vertical overlap between upper and lower incisors. **Open Bite** - In this condition there is no overlap but a vertical separation. **Overjet** – The horizontal overlap of the upper incisors in front of the lower incisors. Normally it is 2-3 mm due to the thickness of the upper incisors edge. **Increased Overjet** is the excessive horizontal distance between the upper and lower incisors. **Reverse Overjet (Anterior Crossbite)** - If the lower incisors are in front of the upper incisors.

Platysma bands (“Turkey Gobbler” effect) – The vertical skin bands, usually one for each side, of the ageing submental and neck region. It is caused by platysma muscle attenuation, lengthening, and dehiscence, along with fat accumulation, skin excess and photo-damage.

Pogonion (Pog) – The most anterior point of the bony chin contour. It is a cephalometric reference point. **Soft-tissue Pogonion (Pog’)** – The most prominent or anterior point of the chin contour. It is a cephalometric reference point.

Point A – The most posterior midline point in the anterior concavity of the traced maxilla situated between the anterior nasal spine and the most inferior point on the alveolar bone overlying the maxillary incisors. It is a cephalometric reference point.

Posterior Nasal Spine – The most posterior point of the palatine bone on the traced maxilla. It is a cephalometric reference point.

Pronasale (P) – The tip of the nose. The most prominent or anterior point of the nose.

Skeletal Classes – The classification of sagittal relationship between maxilla and mandible. **Class I:** normal postero-anterior relationship between maxilla and mandible. **Class II:** too anterior maxilla and/or too posterior mandible. **Class III:** too posterior maxilla and/or too anterior mandible.

Scleral Show (Inferior Scleral Show) – It is the presence of a strip of white sclera between the iris and the lower lid margin with the subject in Natural Head Position and straight gaze. It may be a sign of exophthalmos, previous trauma, prior surgery, lower lid laxity or dentofacial deformities with maxillary hypoplasia.

Subnasale - The point at which the columella merges with the upper lip in the midsagittal plane. It varies widely in relation to caudal septum prominence and nasal spine morphology.

Throat Length (TL) – It is the distance between the neck-throat point (NTP) and the soft tissue menton (Me’) on the lower facial outline. The throat length is preferably assessed clinically as short or long and not measured instrumentally.

Witch’s Chin Deformity (Ptotic Chin) – The flattening and ptosis of the chin pad associated with the deepening of the submental crease. It can be age related or iatrogenic.