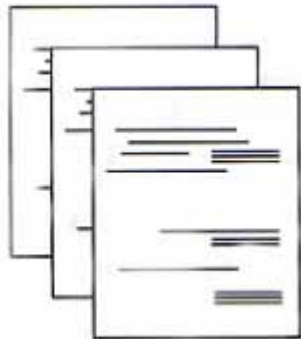


How to prepare orthodontics patient for the surgical treatment

UROŠ MEZEG DR. DENT. MED



Take a history



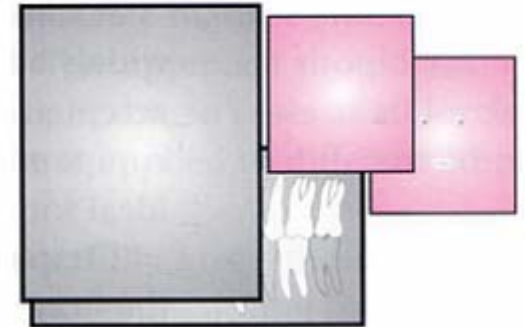
Personal information
Chief concerns
Medical, dental and TMJ histories
Growth assessment

Examine the patient



TMJ examination
Front facial
Profile facial
Dental examination

Take records



Quality of records
Natural head position
Photographs
Radiographs
Mounted models





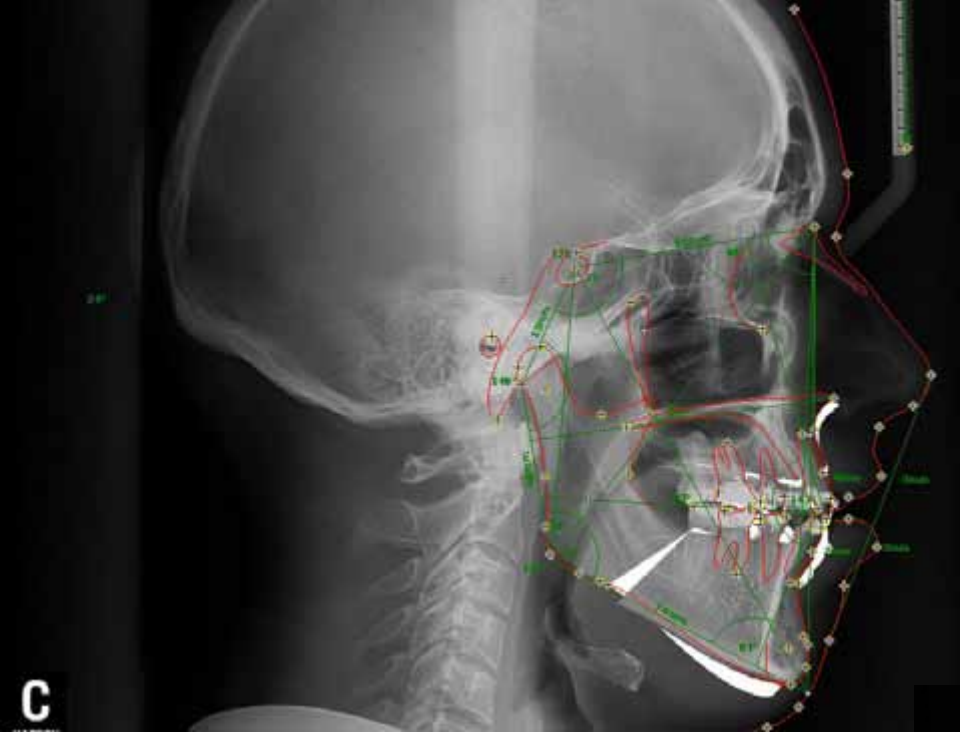


POLICE









C

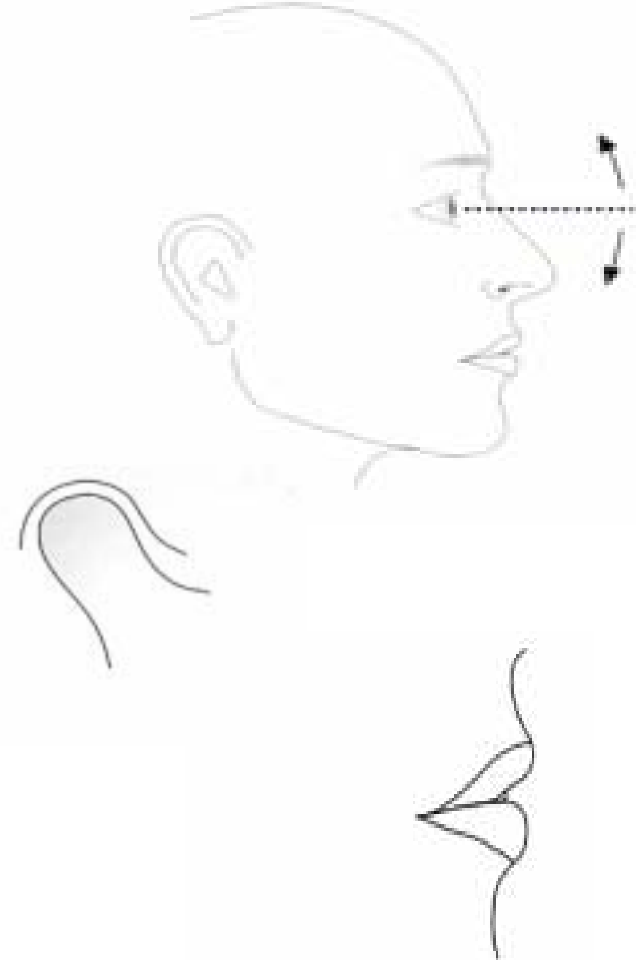


C



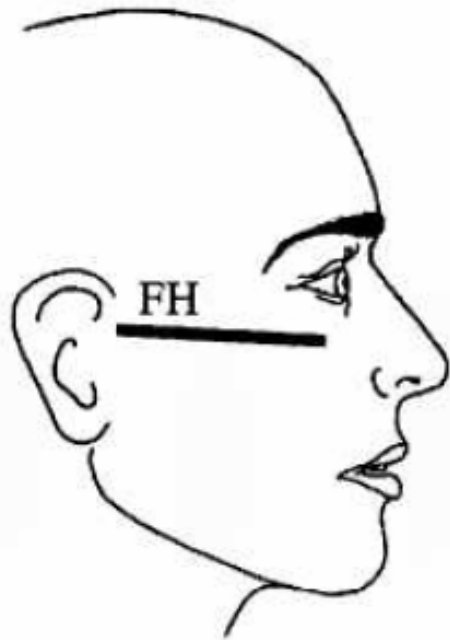
How to take the records

- Natural head position
- Seated condils
CR-CO
- Relaxed lip posture



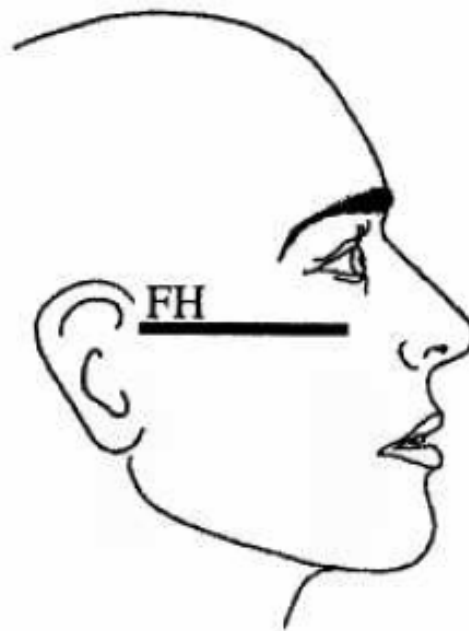


Postural Horizontal



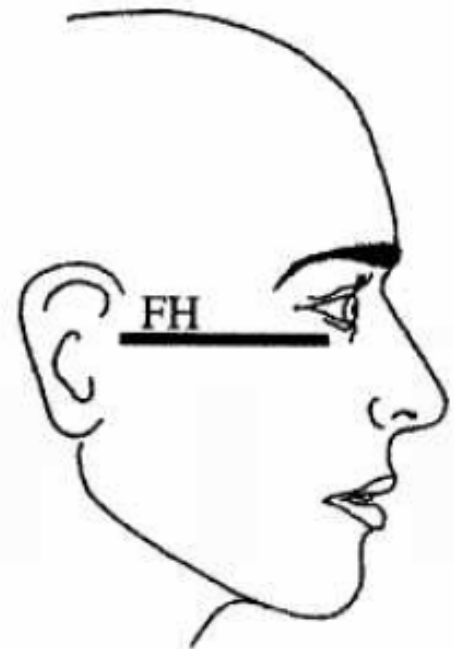
**Class I
Profile
A**

Head Up



**Class III
Profile
B**

Head Down



**Class II
Profile
C**

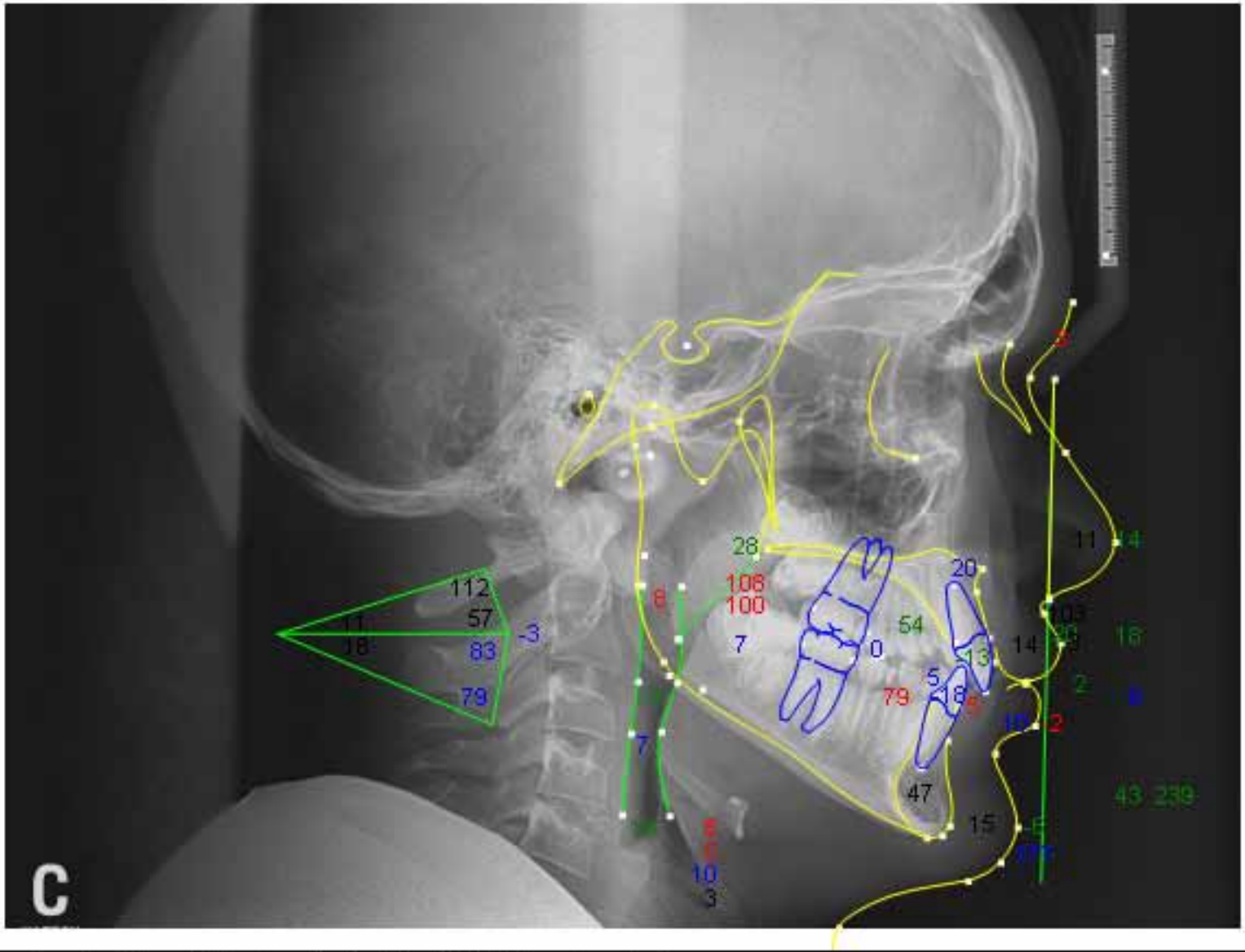






Dr. Uros Mezeg
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Phone: +38645309090

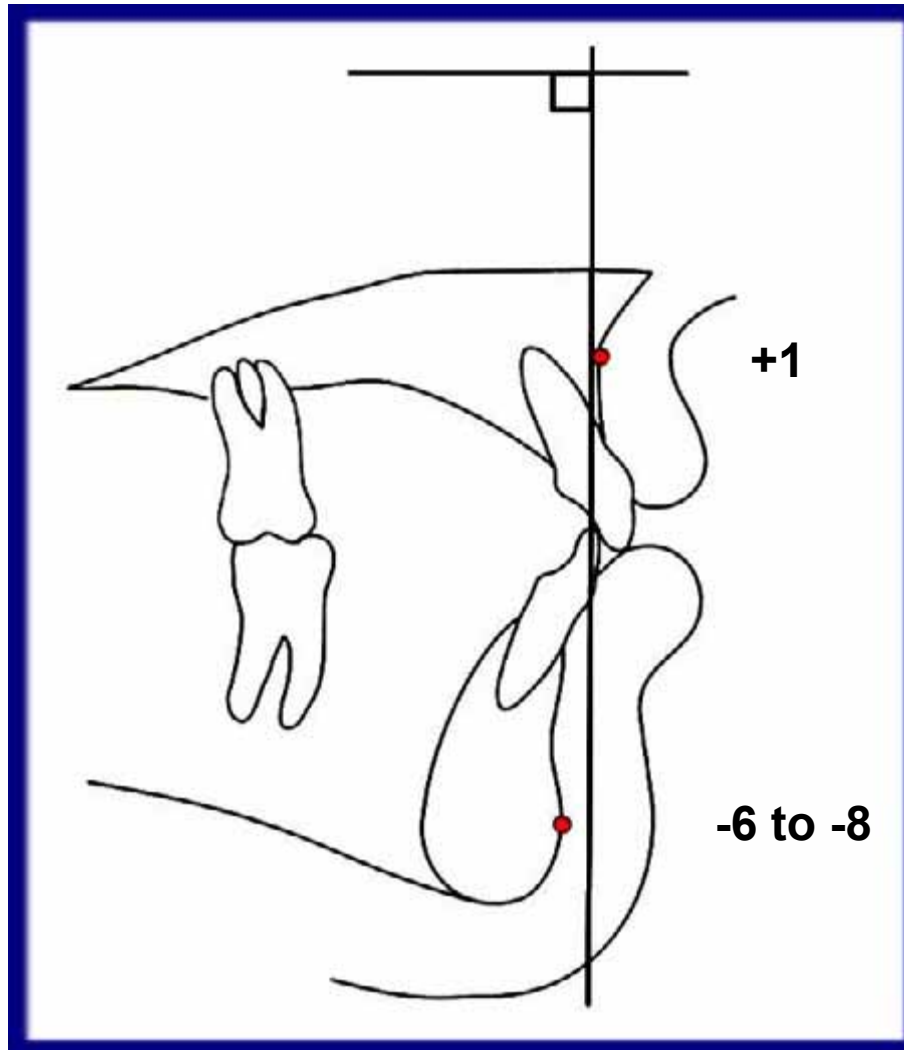
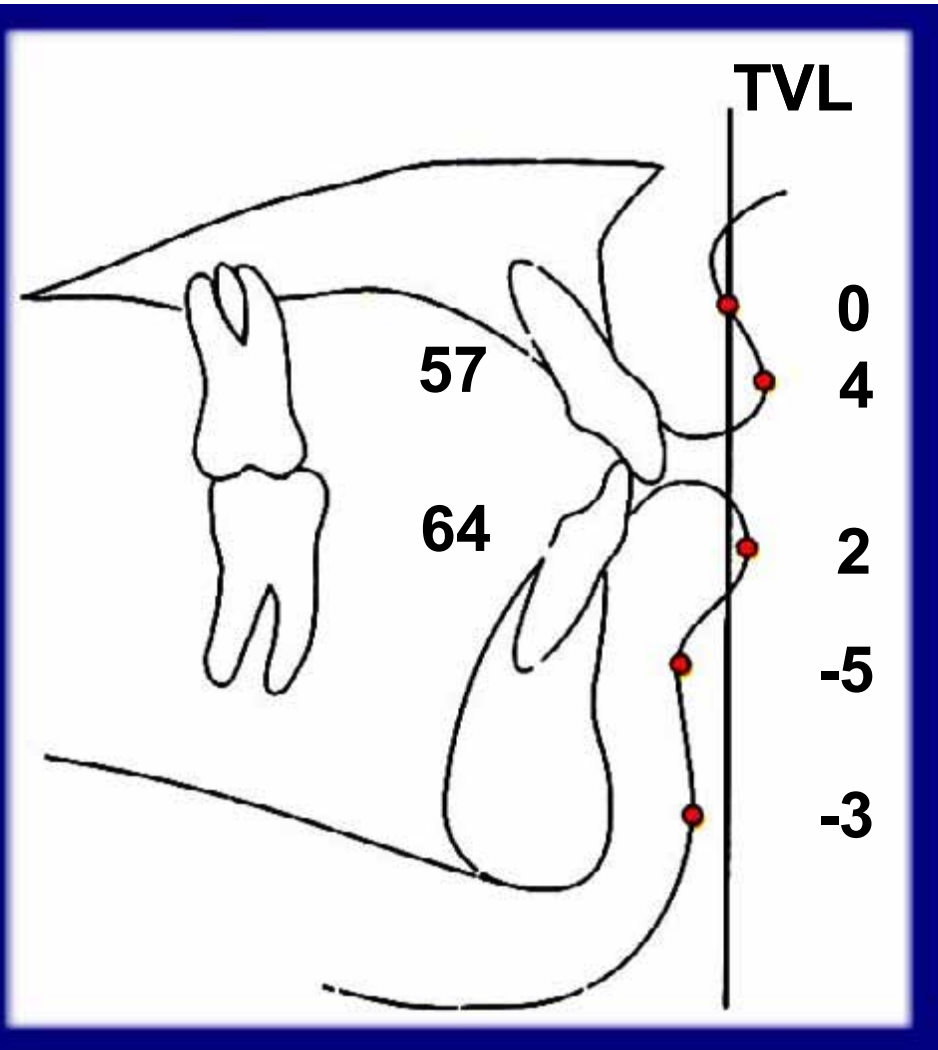
OZBE MEZEG
15.11.2010, Progress, YR

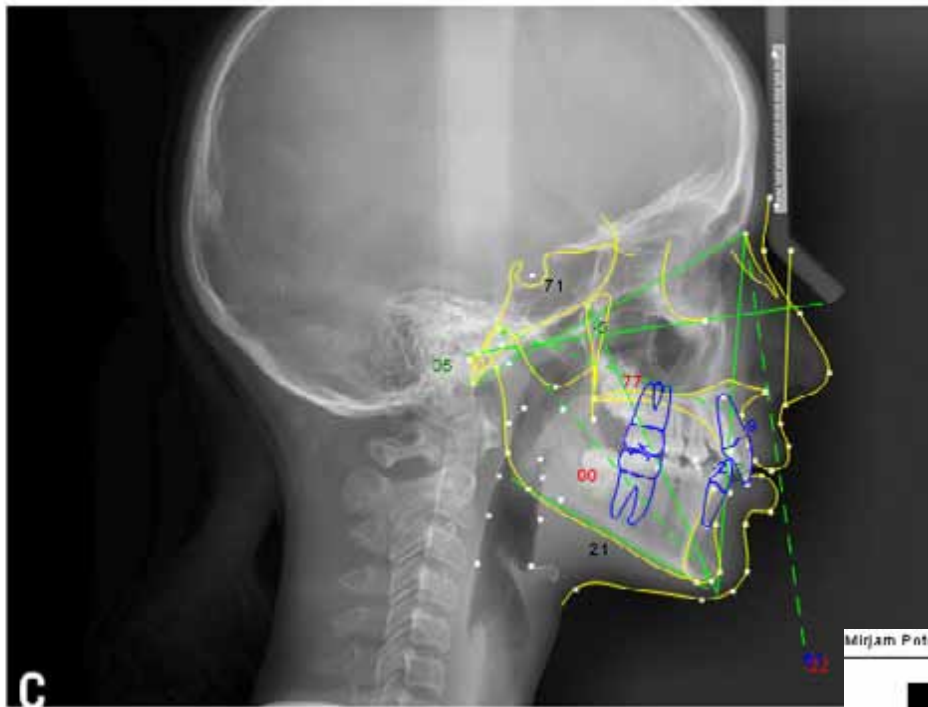


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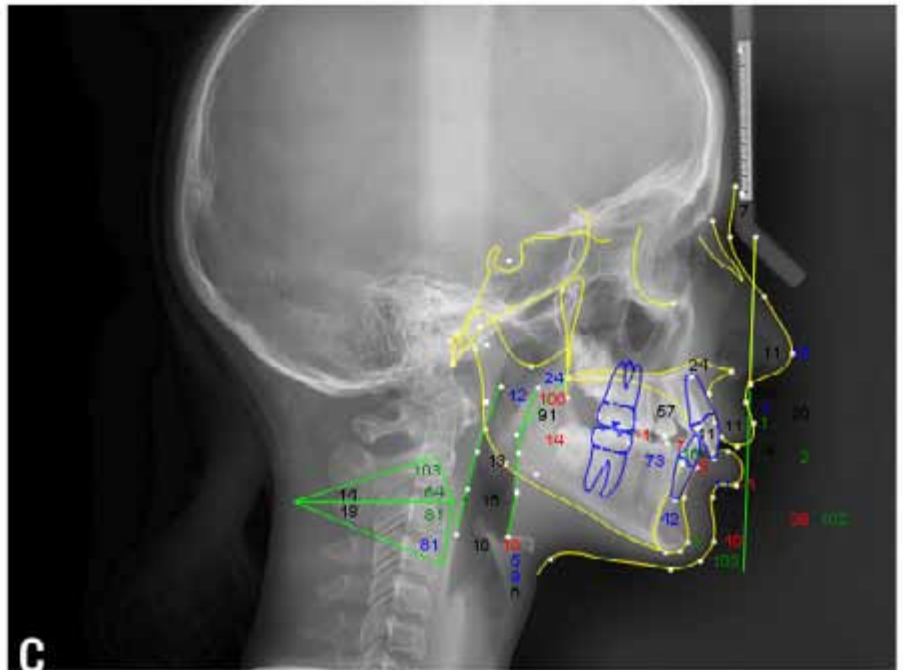






Mirjam Polocnik, Initial 26.9.2012, Printed: 0.10.2012

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Photos produced electronically using the Dolphin DIGITAL Imaging System.





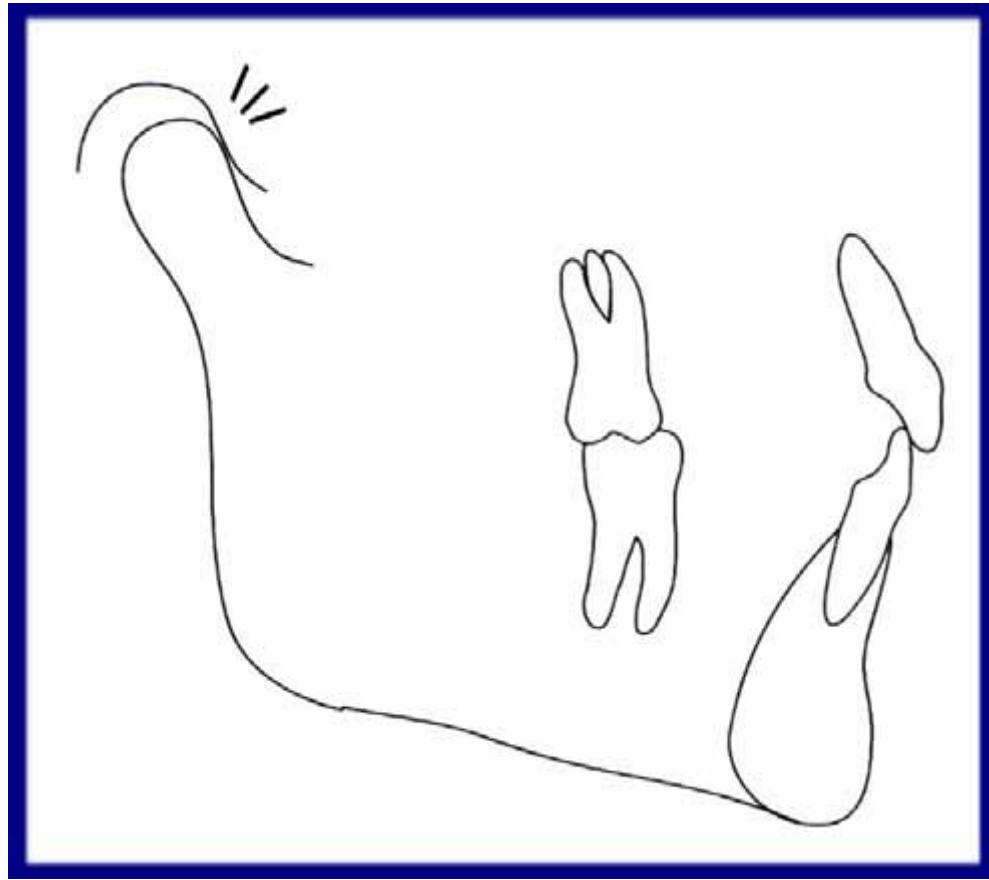


**Seated Condyle
Position
A**



**Postured
Position
B**





If the patient shows an anterior skid, with a corresponding anterior condyle position, it is beneficial to continue with headgear or Class II mechanics to allow the condyles to seat in the fossae.



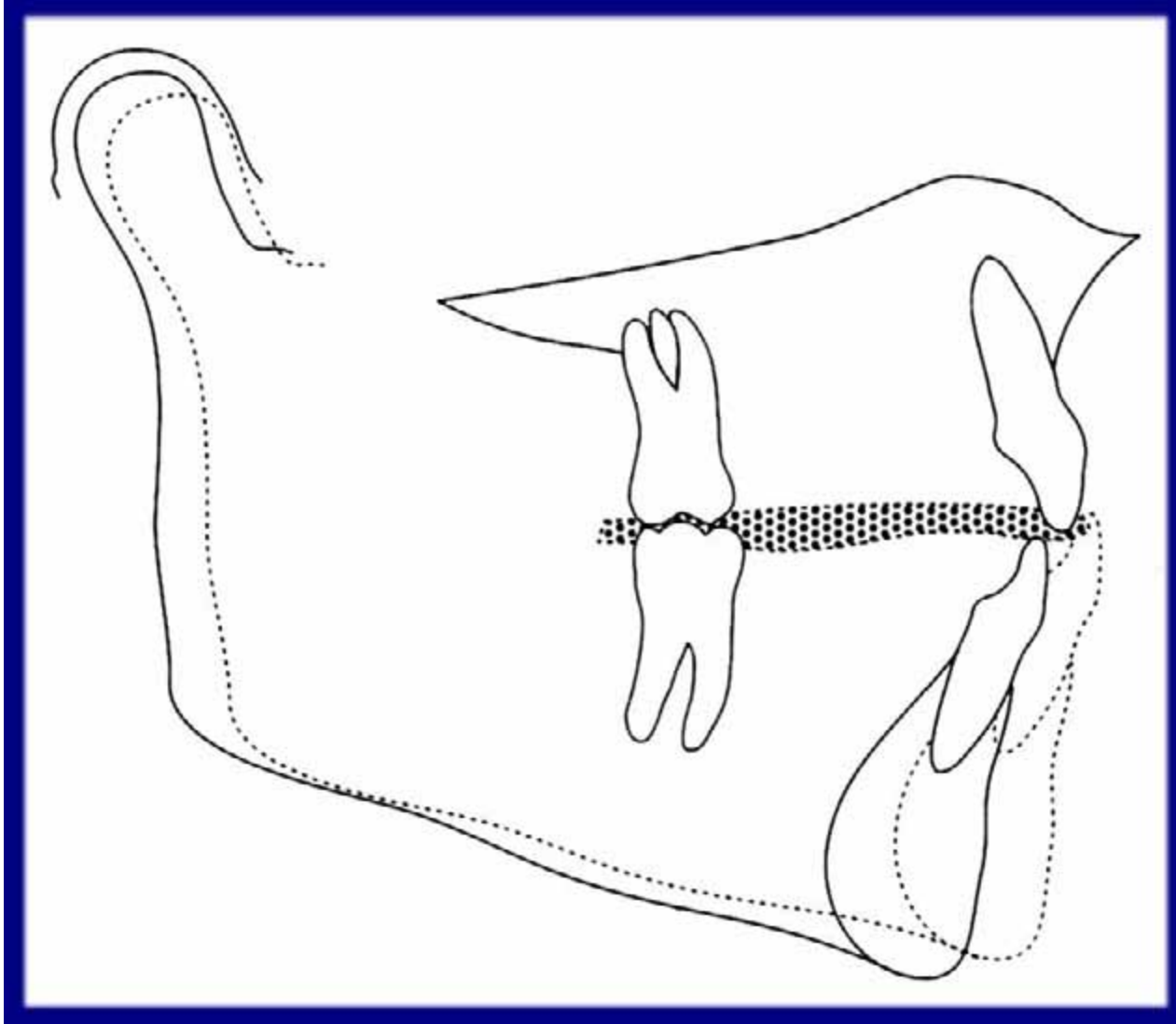


**Seated Condyle
Position
A**



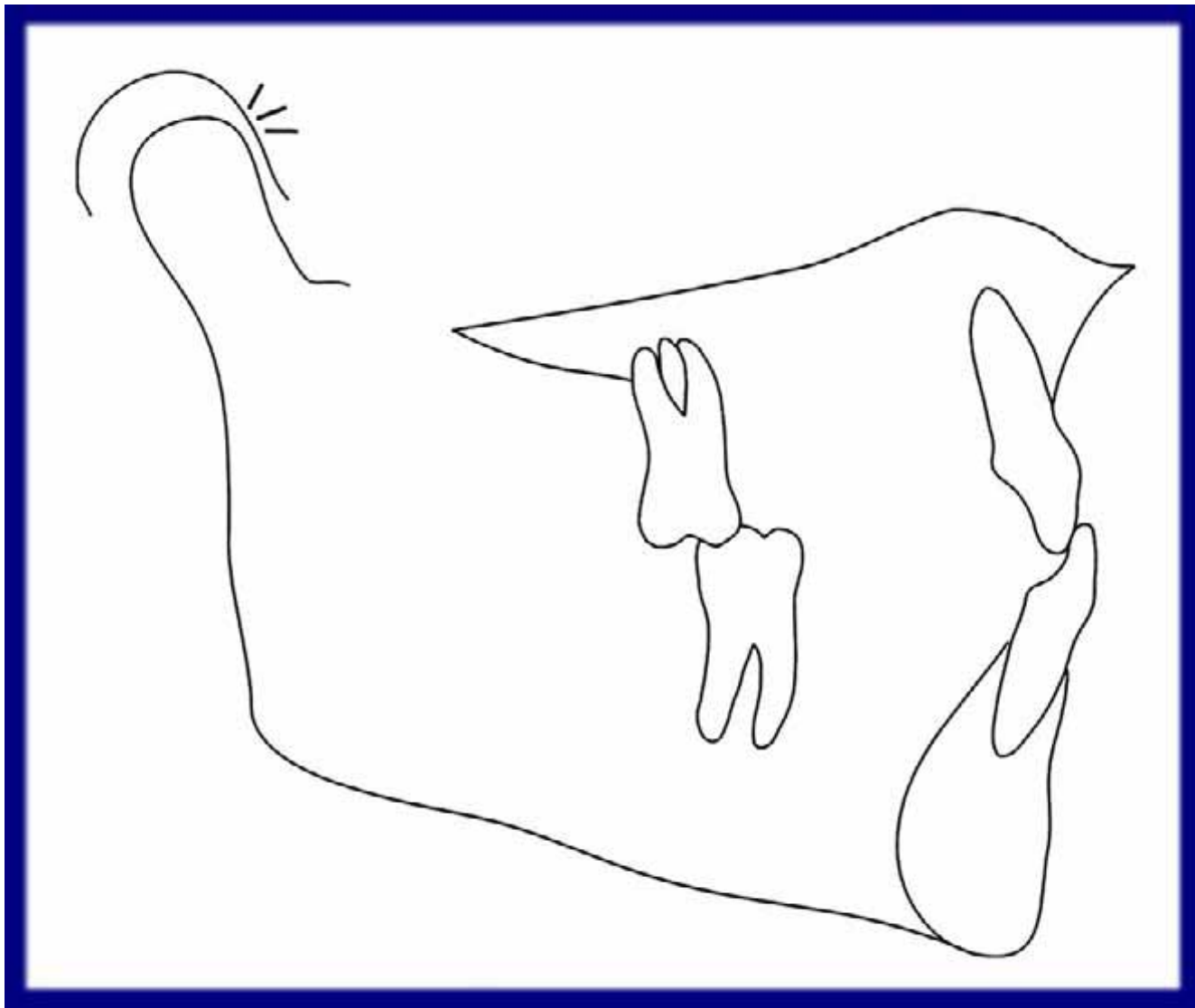
**Postured
Position
B**





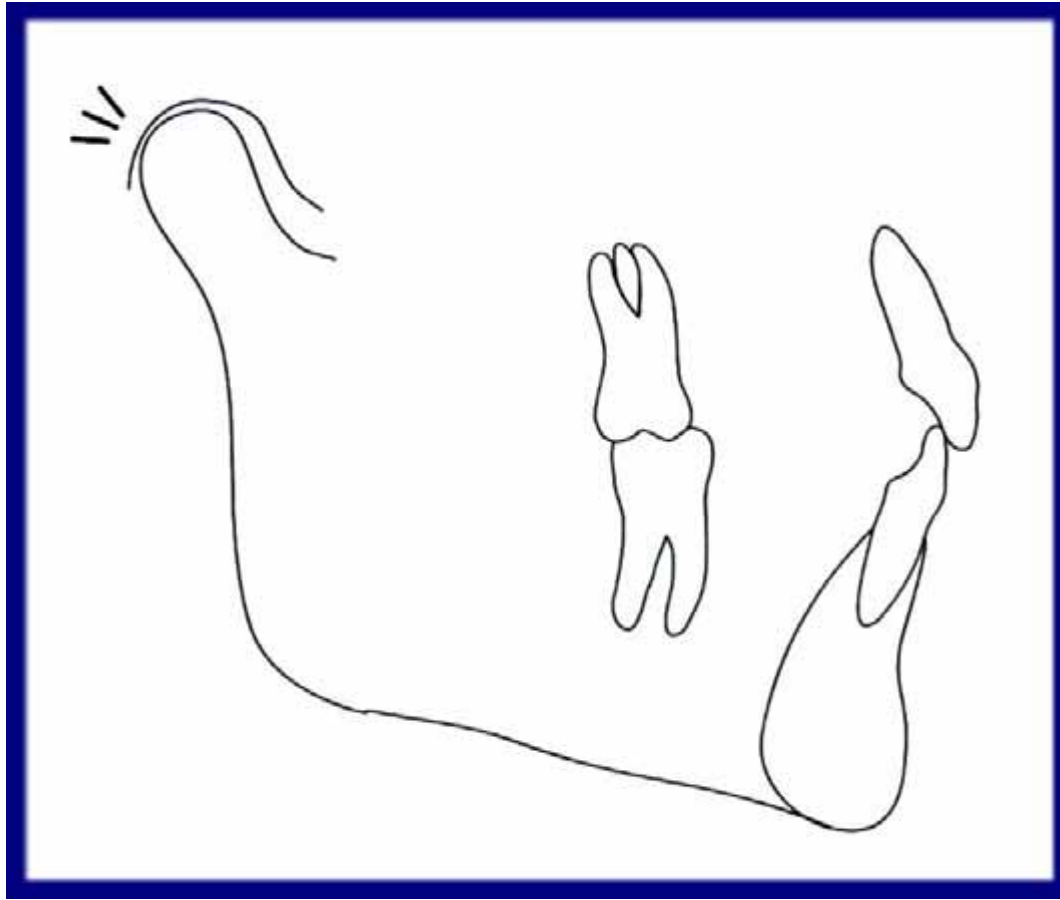
A waxbite is required to accurately record the A/P position of the mandible, with condyles centered. In this way, accurate treatment planning will be possible, based on records taken with the mandible at the CR position.





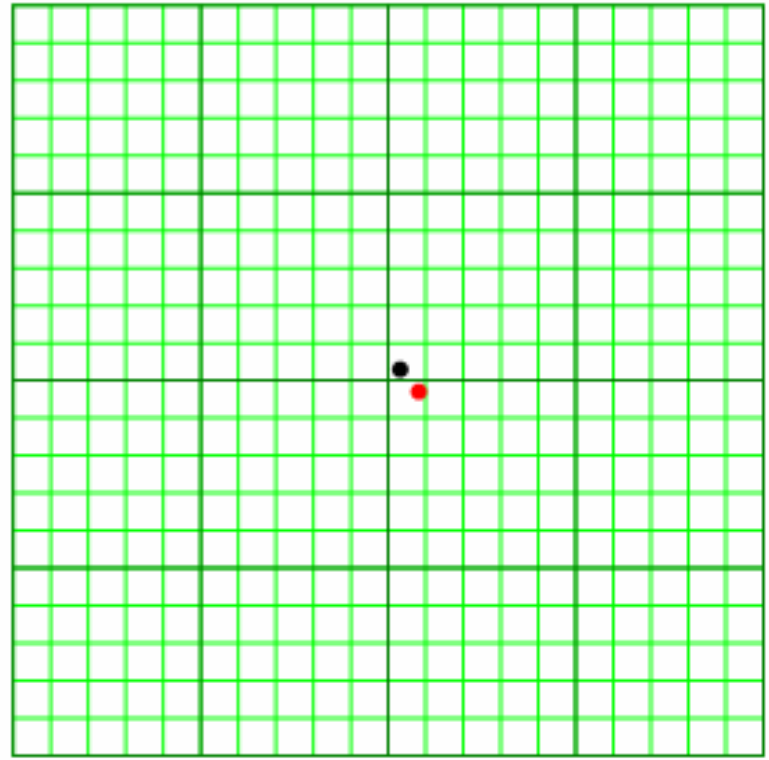
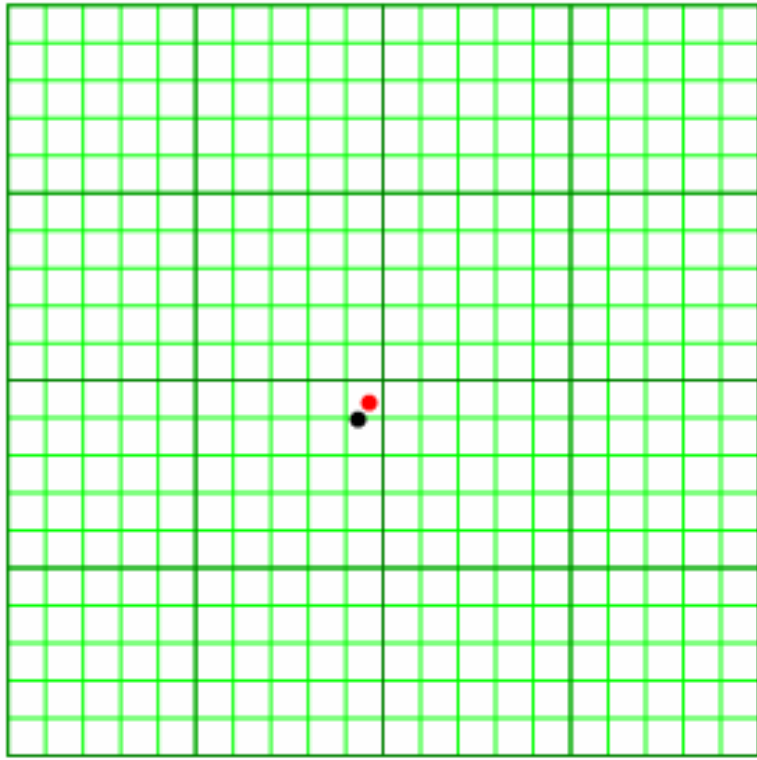
Mandibular displacements are frequently found in Class III malocclusions. They need to be identified and accurately recorded.





If the patient shows a significantly posterior condylar position, further treatment should be provided, to achieve a more centered position





Distal (x): Vertical (z):

Distal (x): Vertical (z):

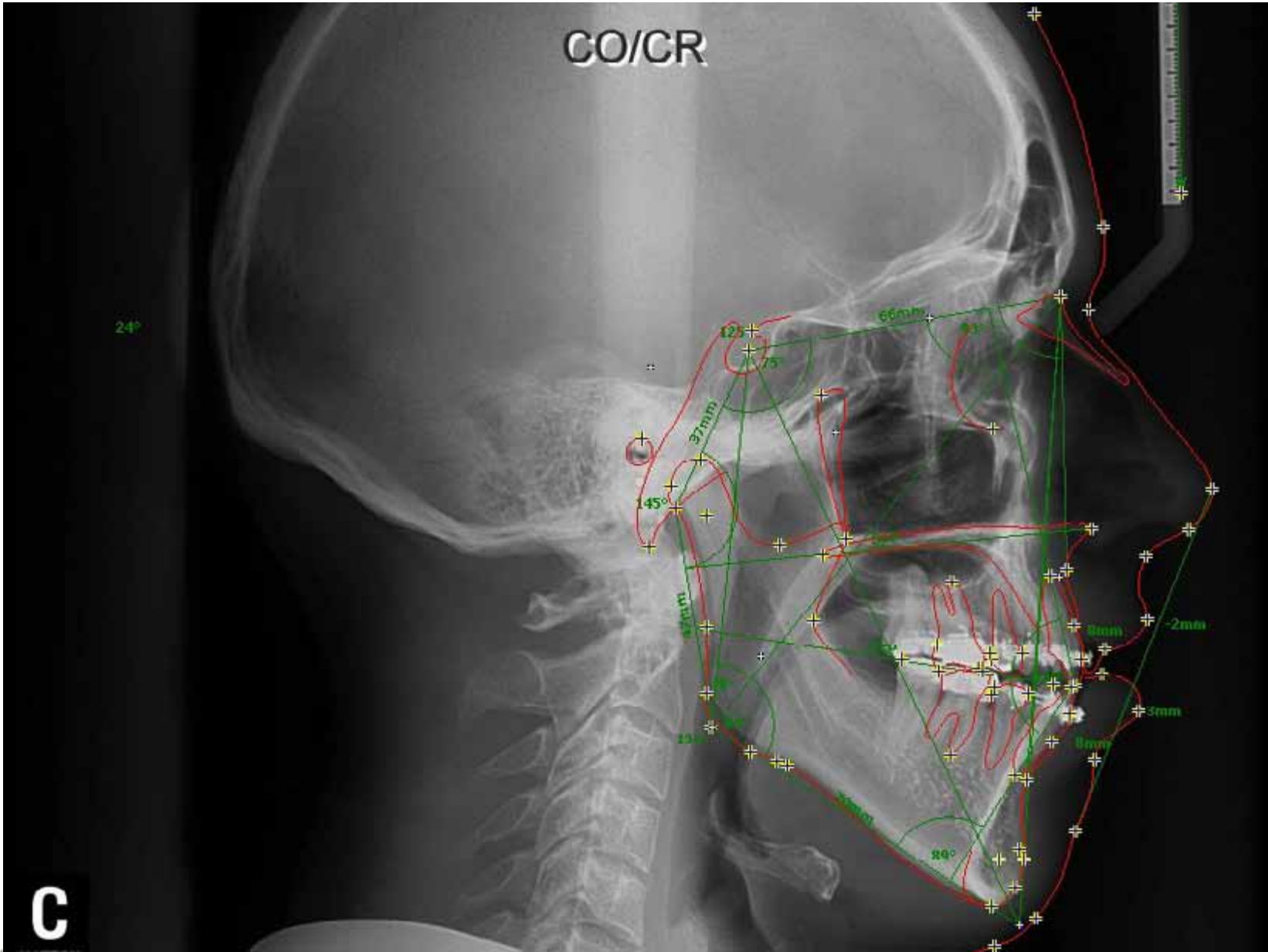
Black is CO and Red is CR

Average: Distal (x): 0.1

Črna je CO
Rdeča je CR

Povprečje: Distalno (x): 0.1
Navpično (y): -0,1







Mounted models may be used to re-evaluate mandibular position and check functional movements as the finishing stage commences.



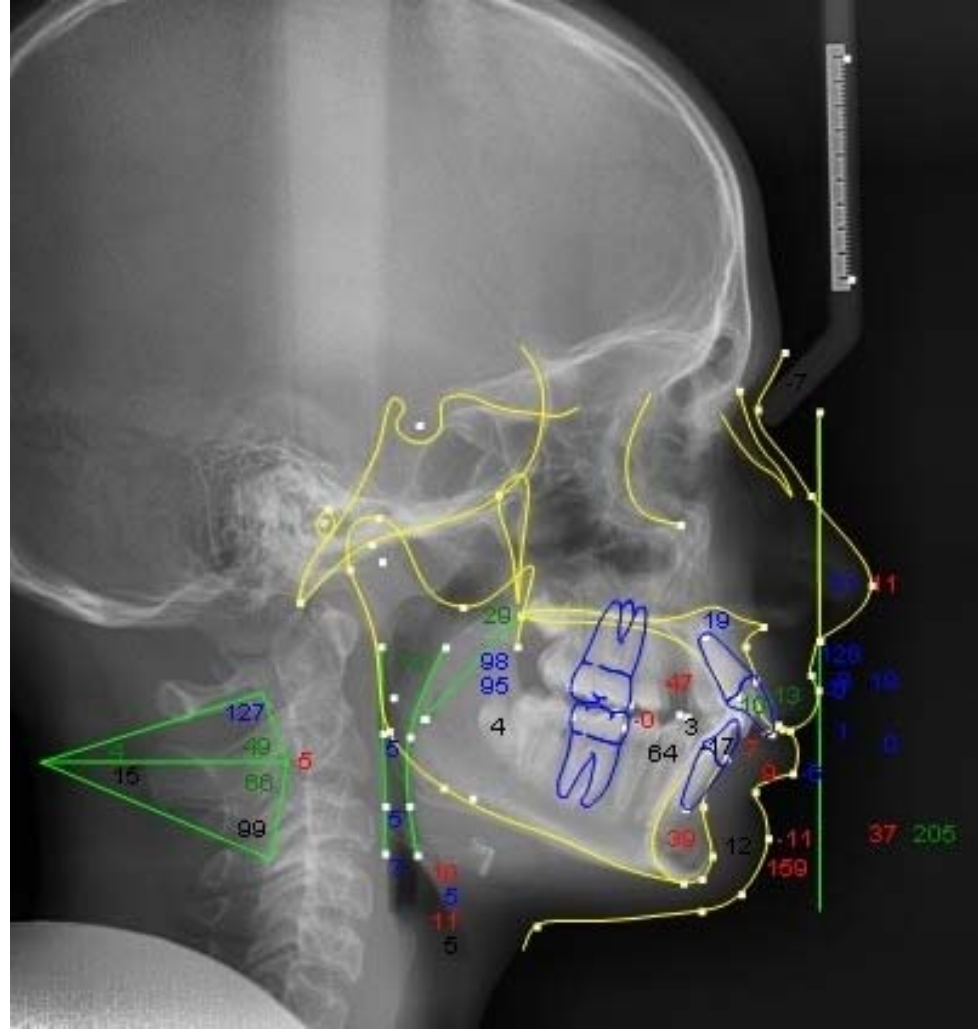


Deep bite
A



Bite Open
B







Open bite
Relaxed lip
A



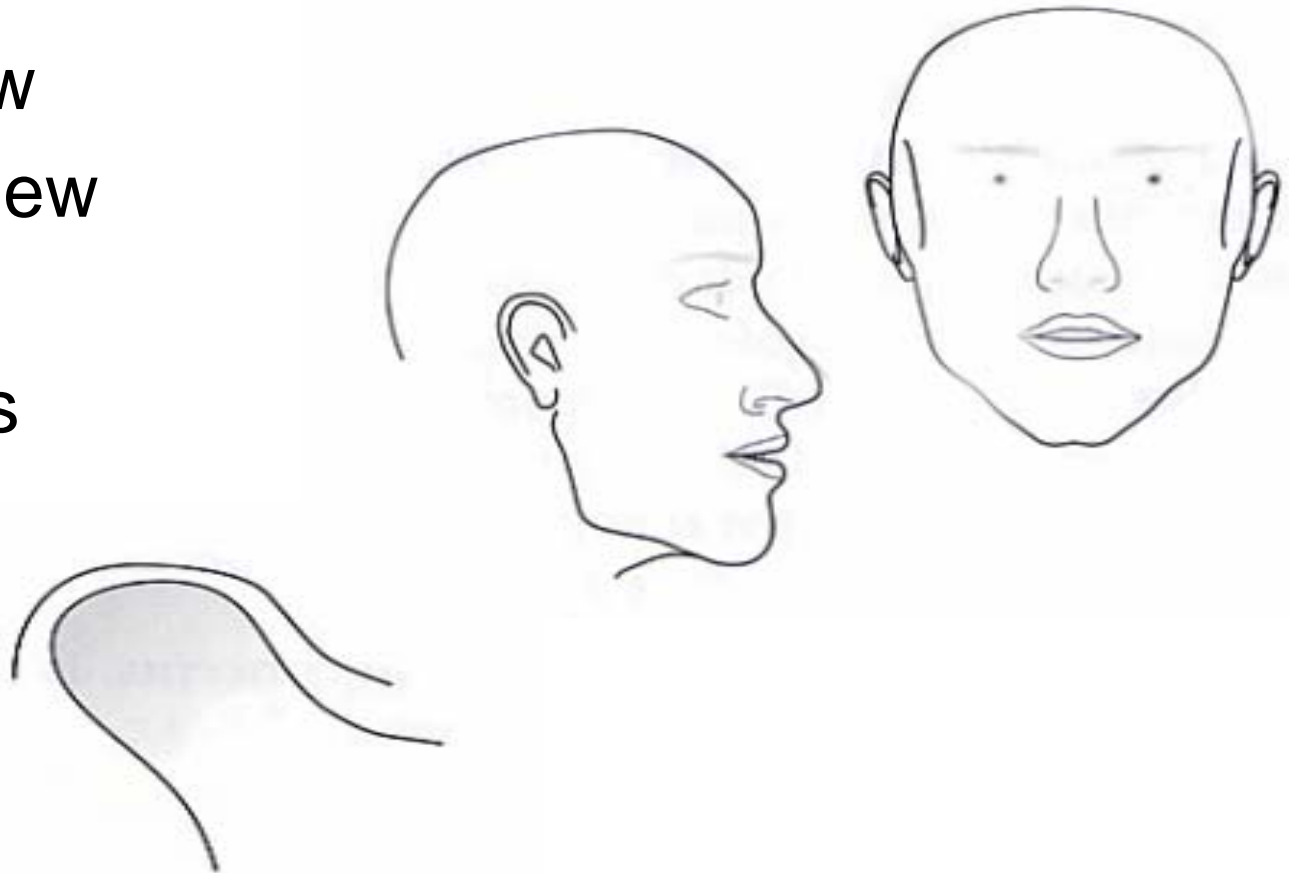
Closed Lip
B

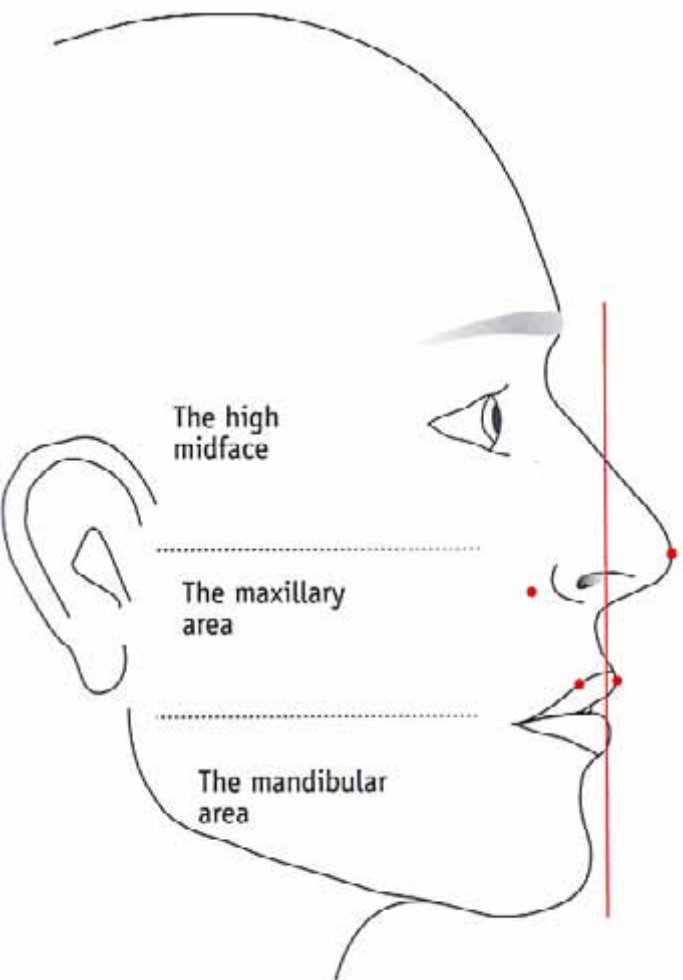




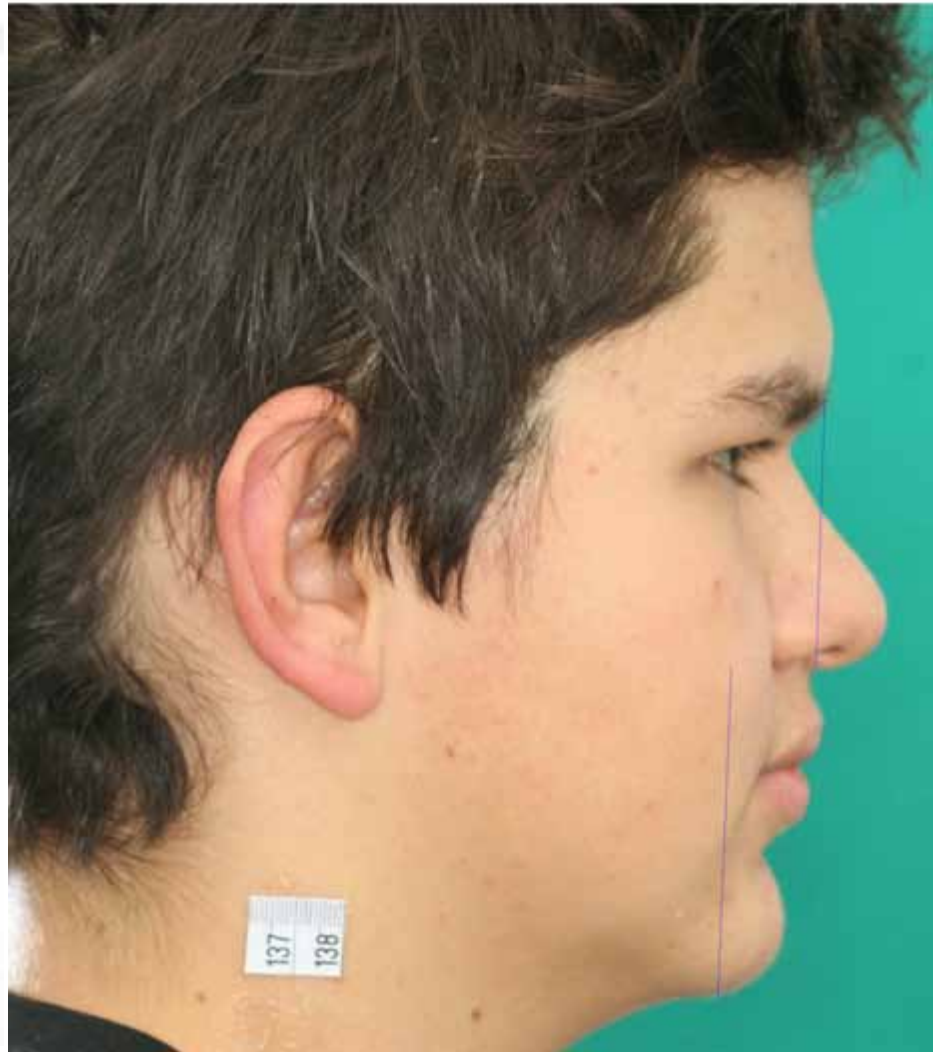
The clinical examination

- Profil view
- Frontal view
- The joints

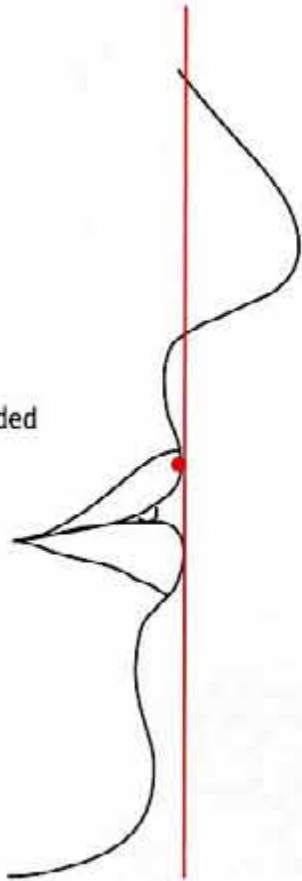




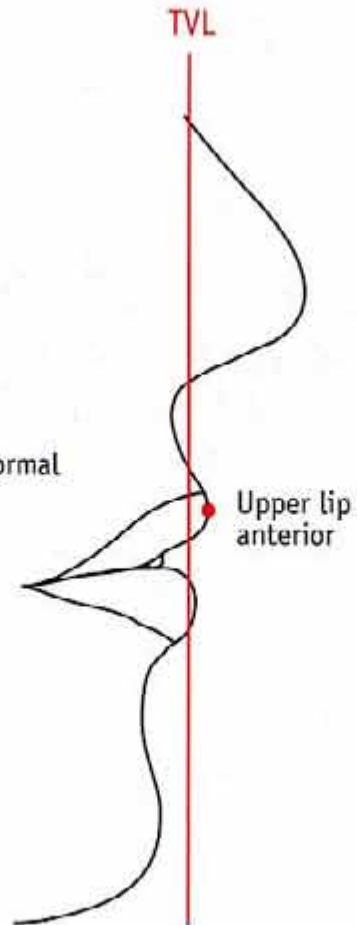
- Nasal tip
- Nasal base
- Upper lip support
- Upper lip anterior



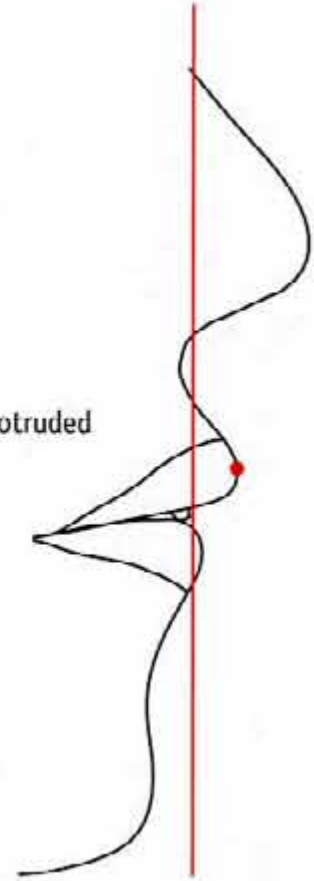
Retruded

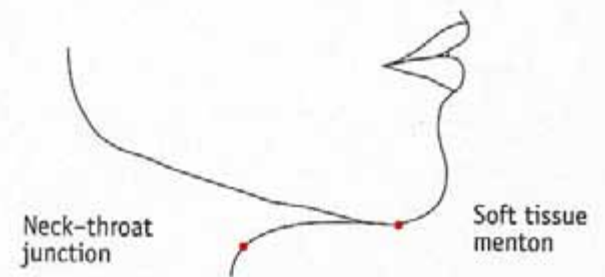
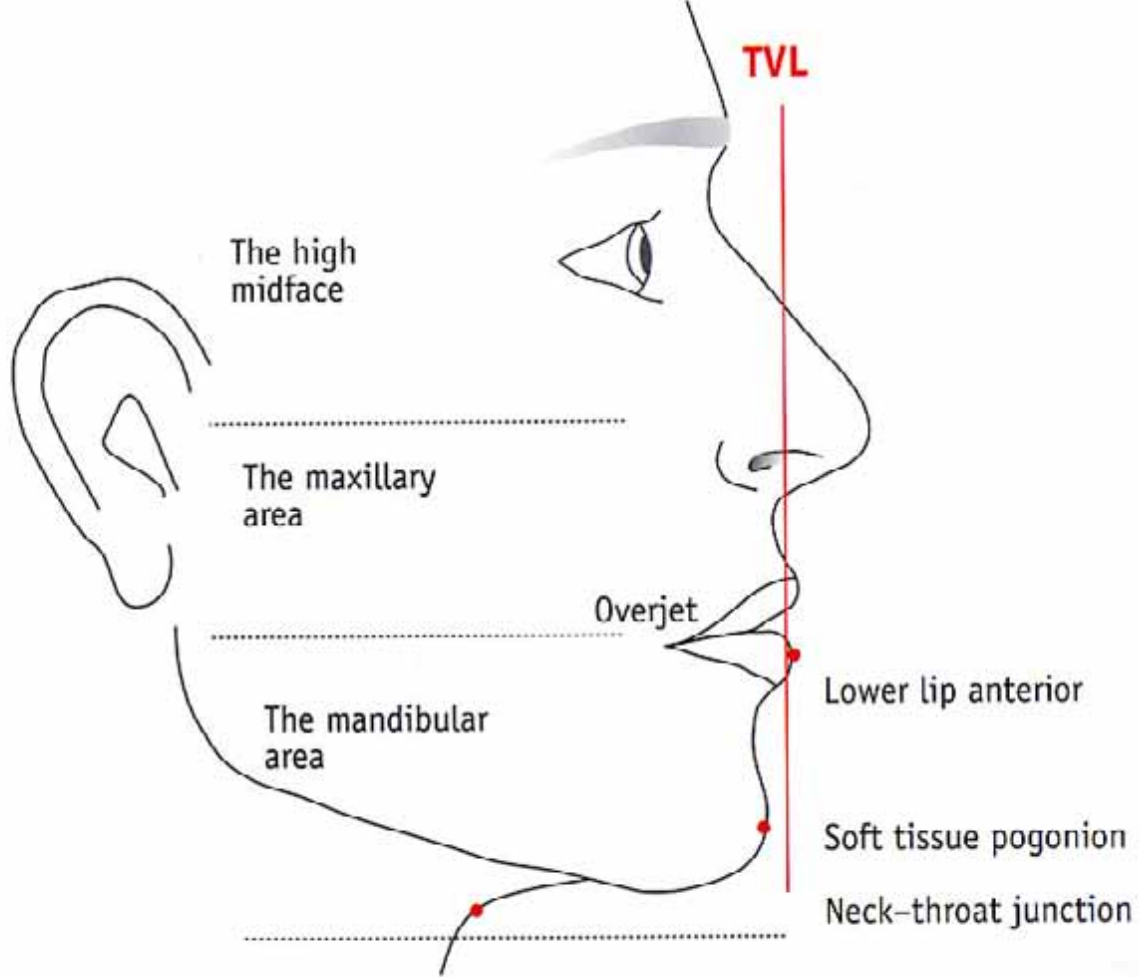


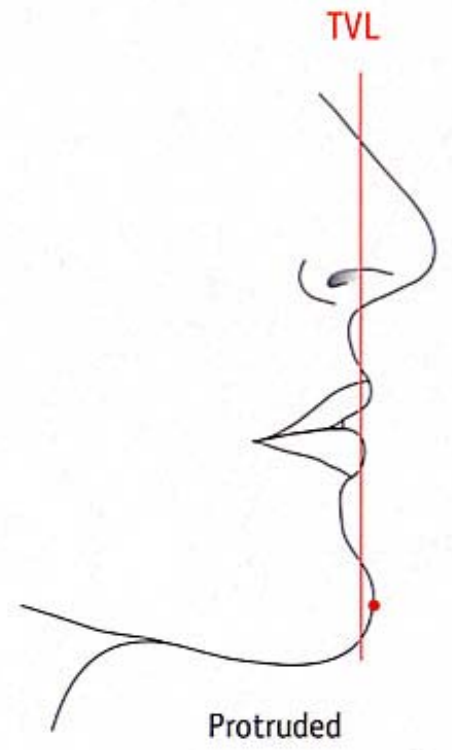
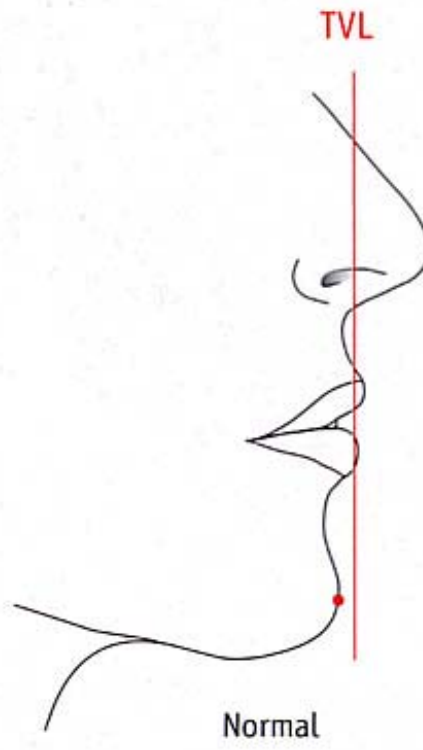
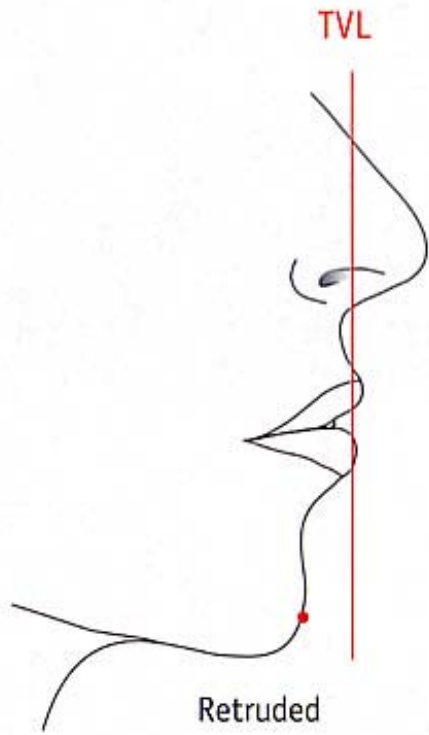
Normal

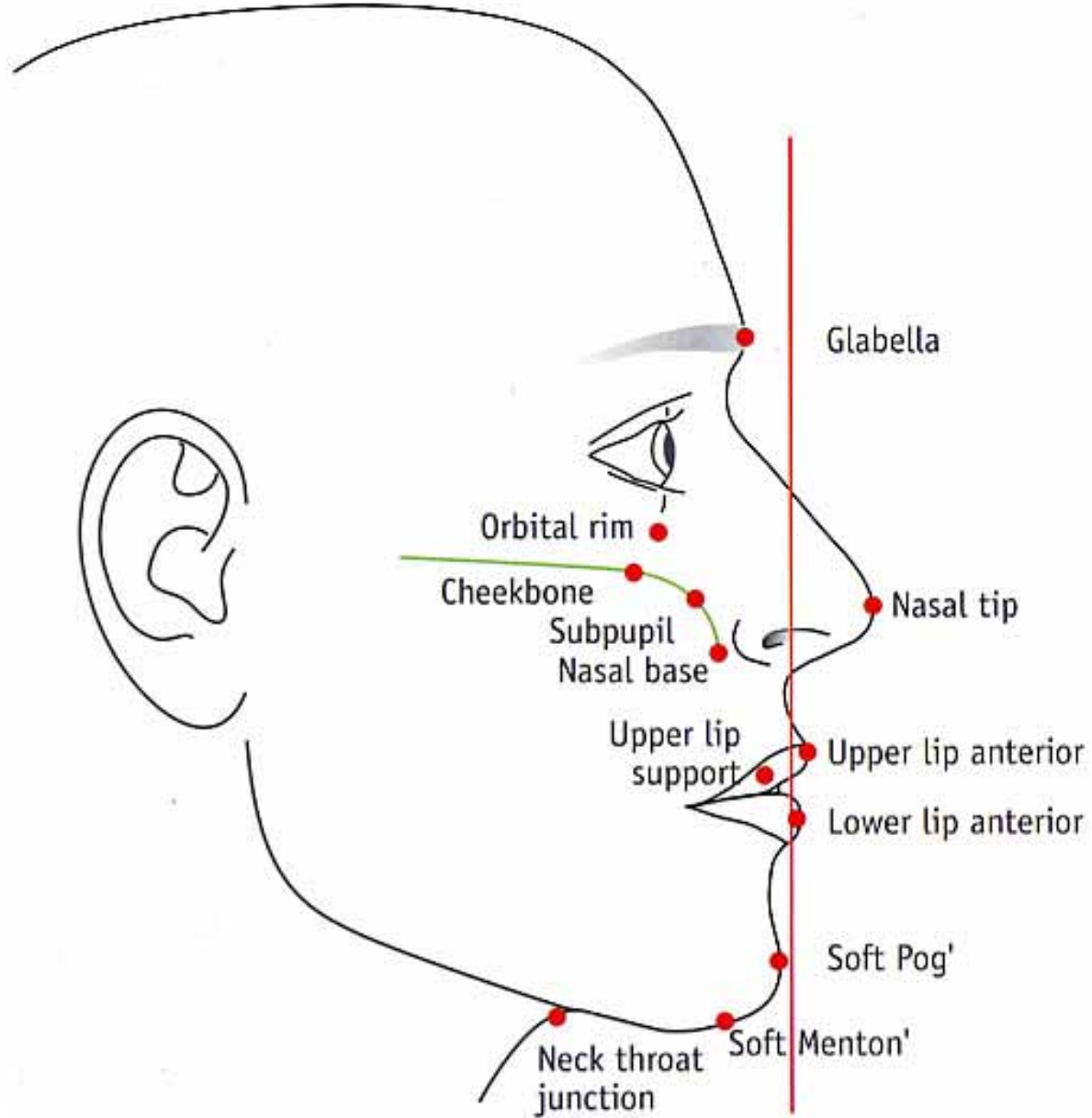


Protruded

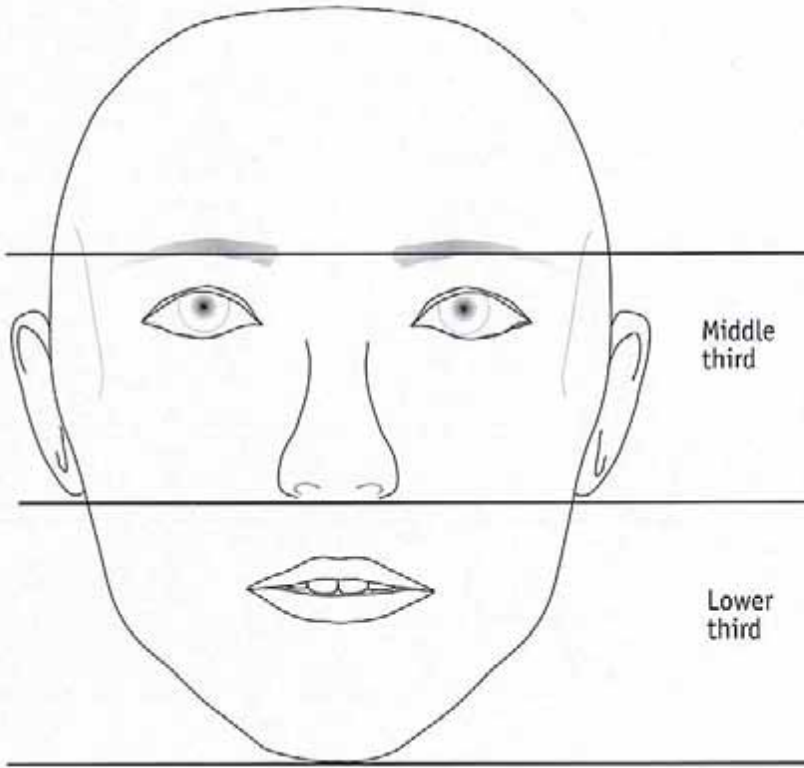








Mid brow



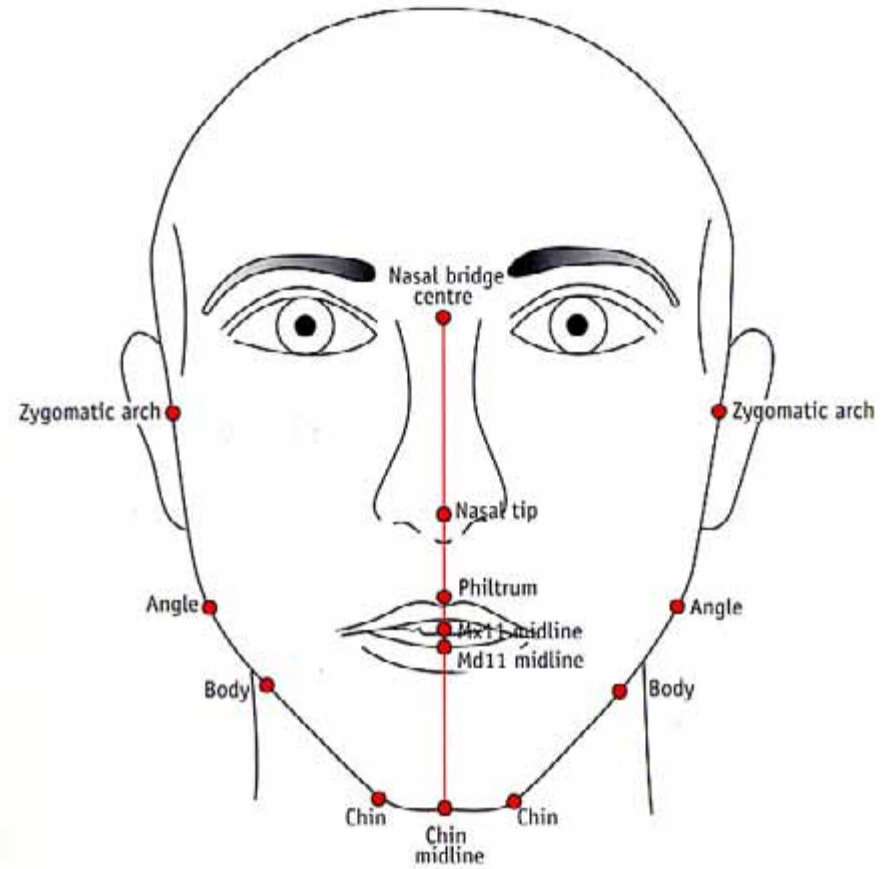
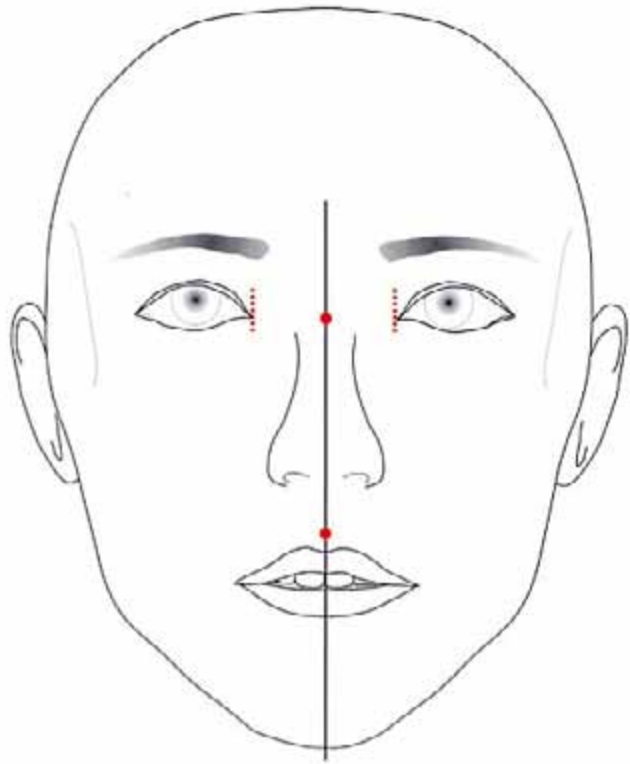
Middle third

Subnasale

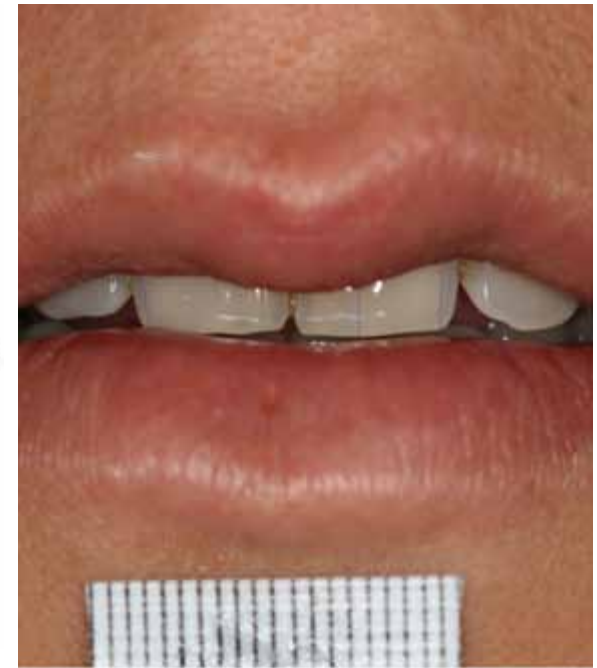
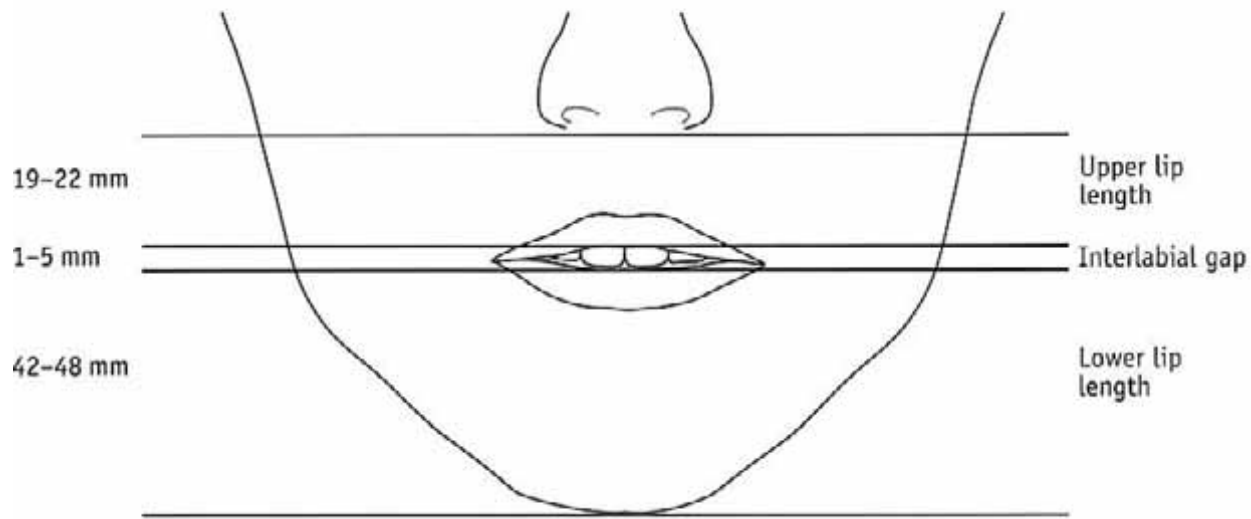
Lower third

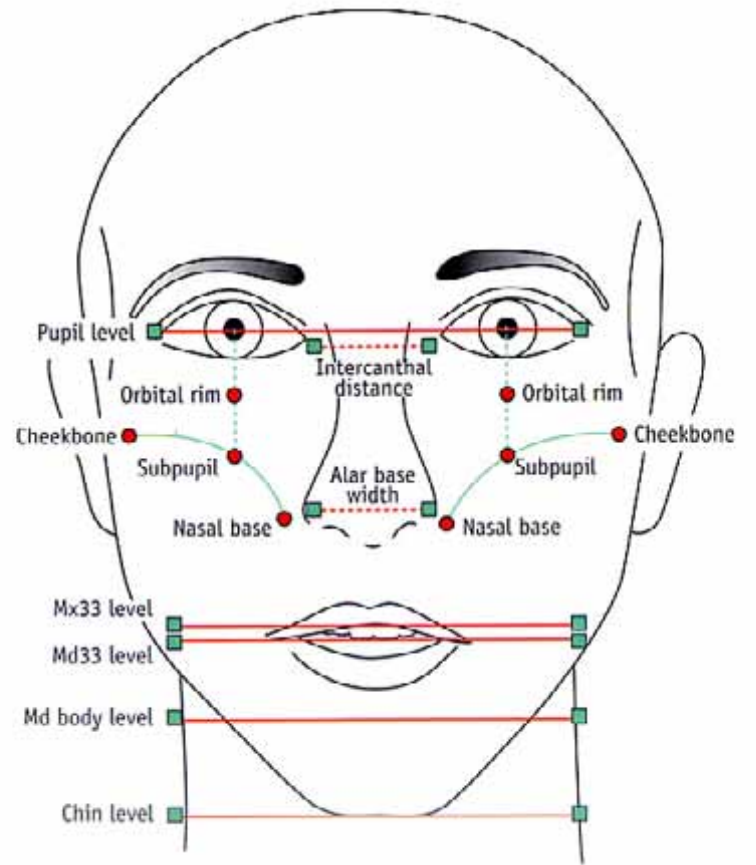
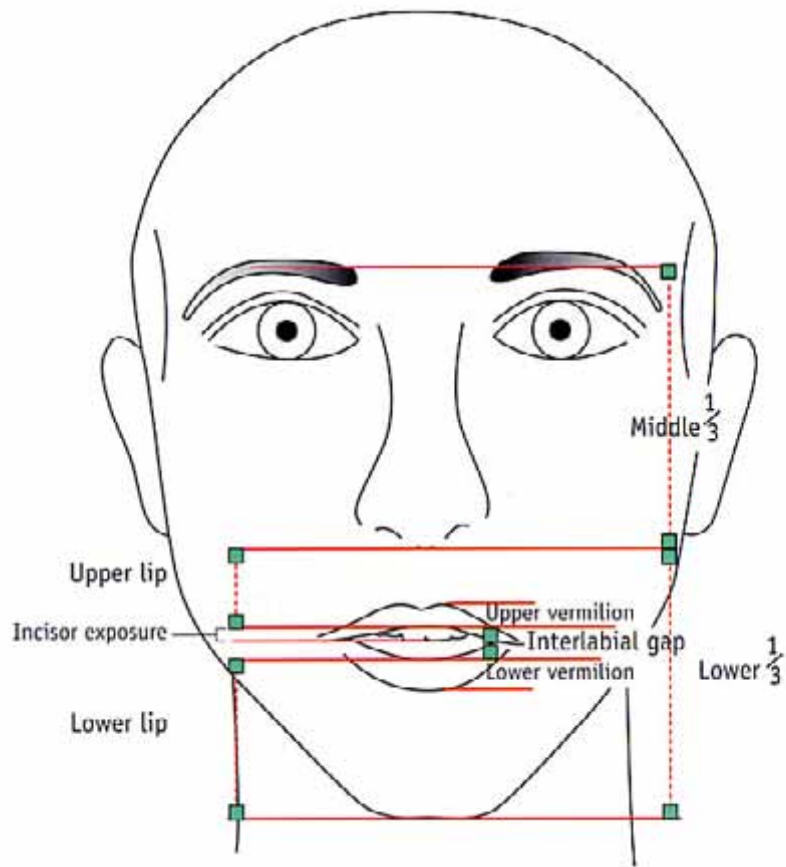
Menton



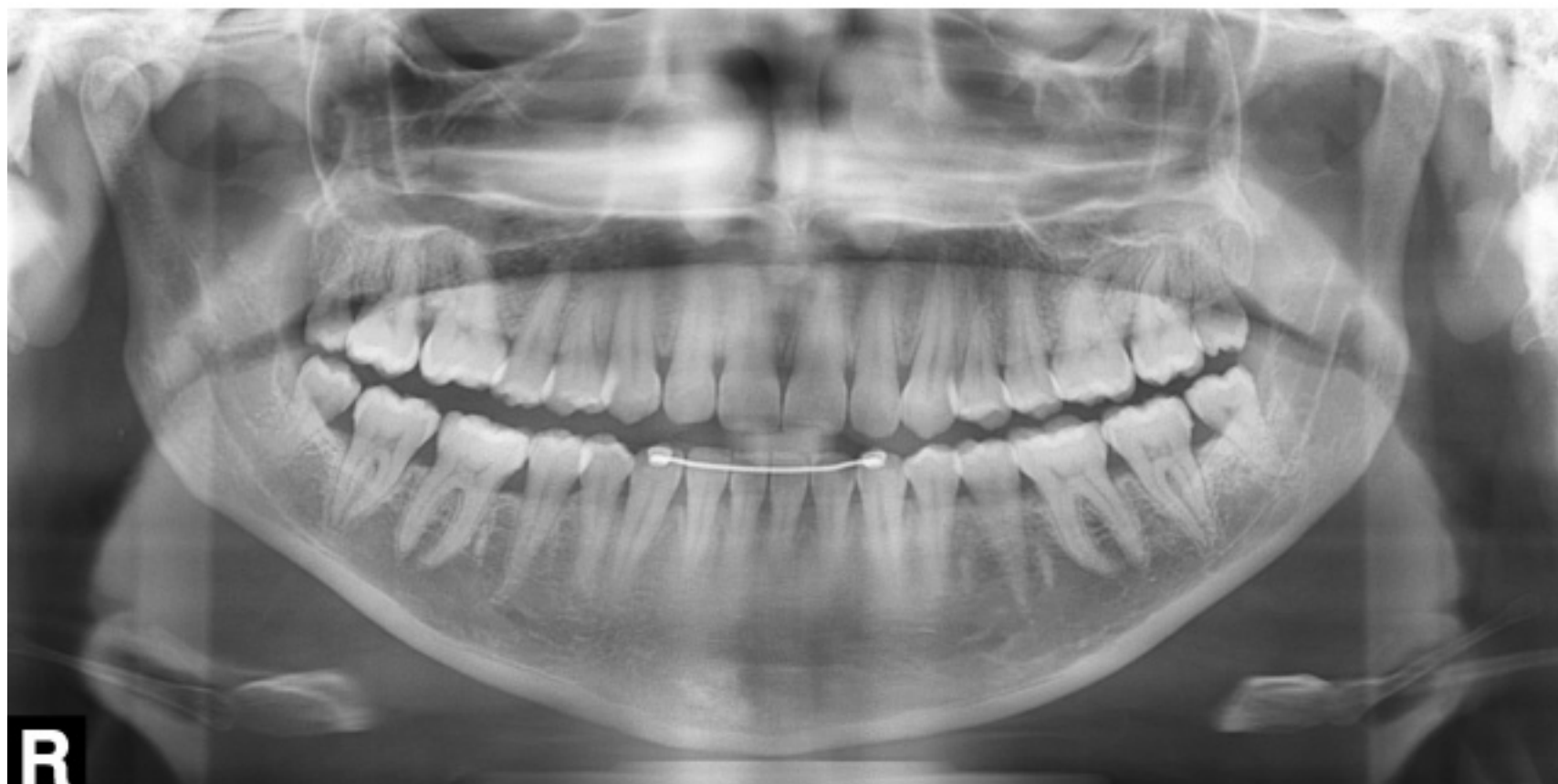






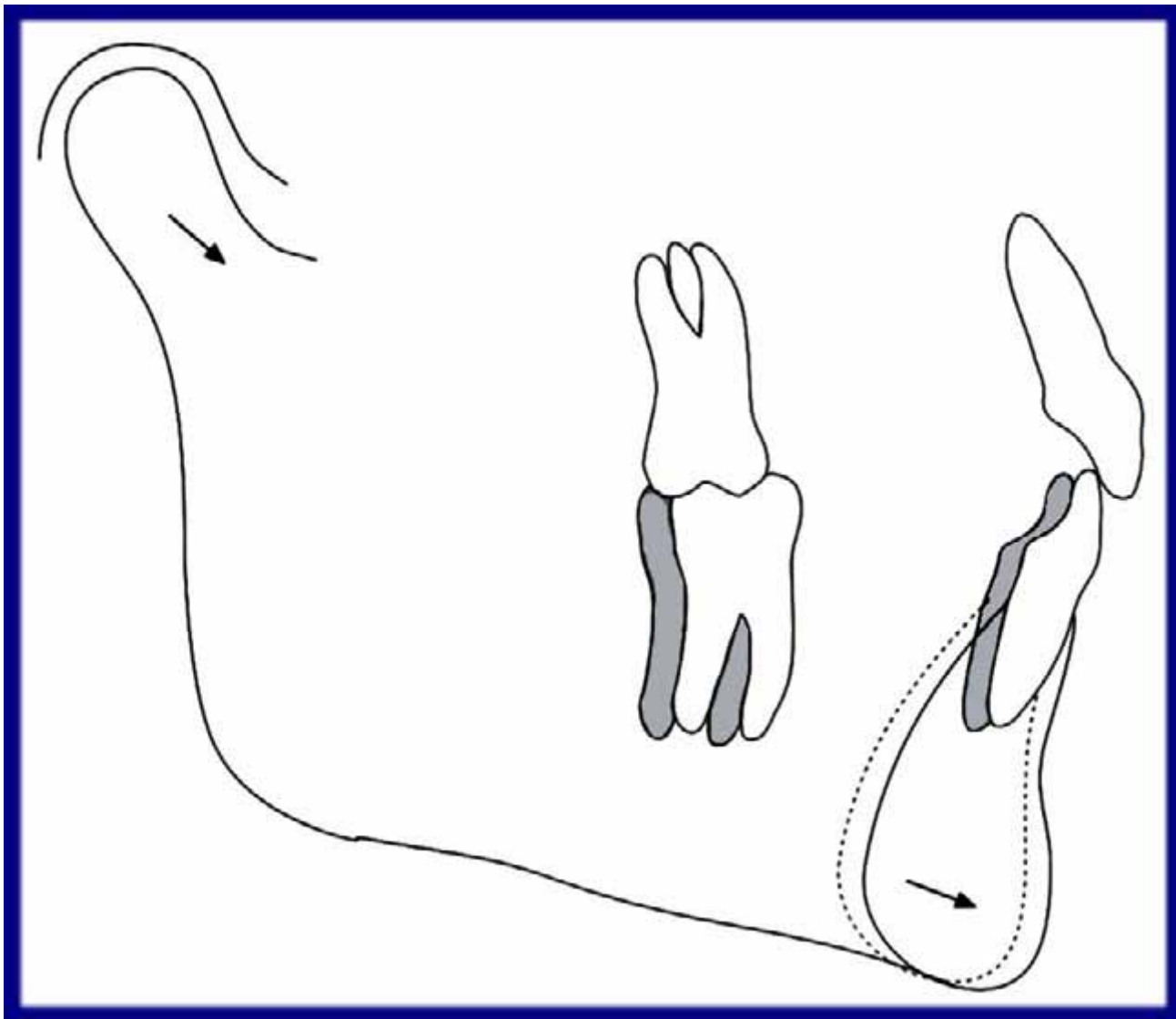






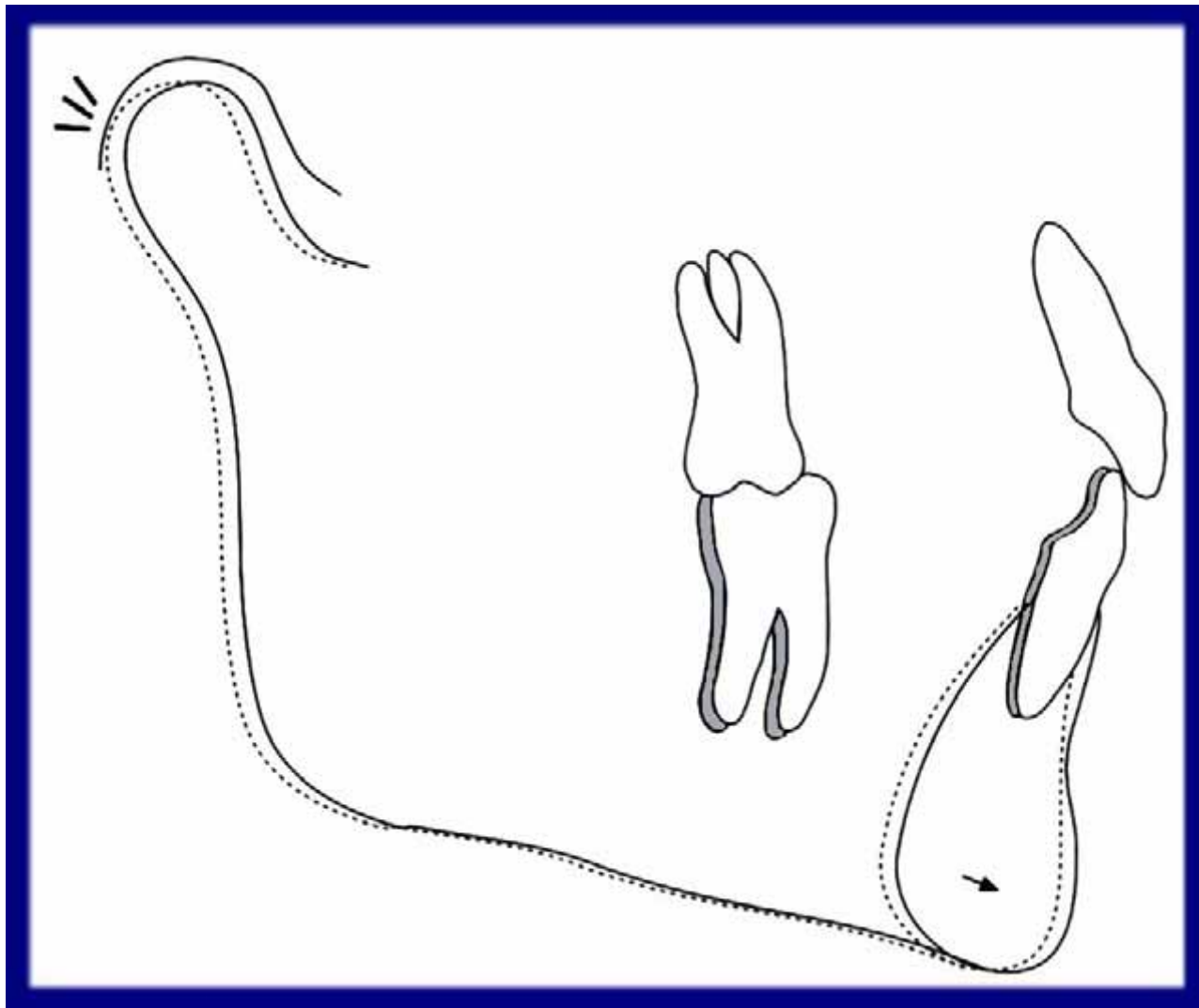
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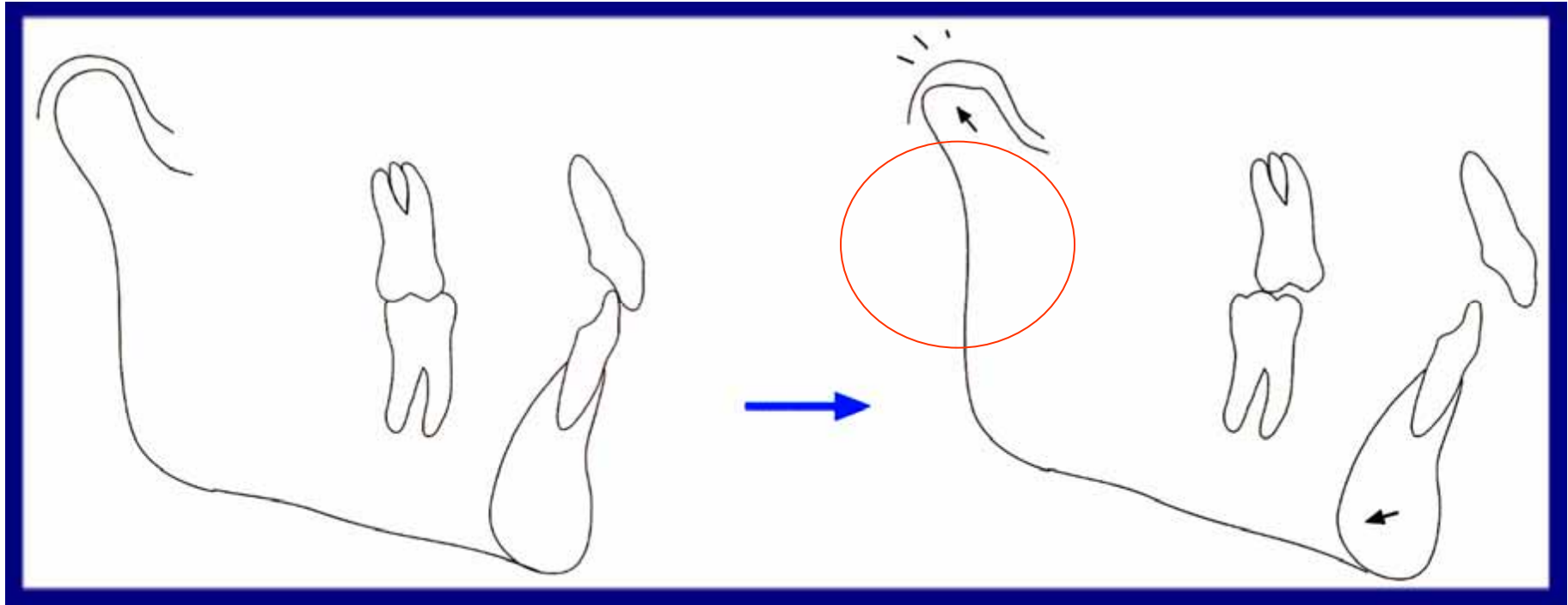
A change in the length of the mandible





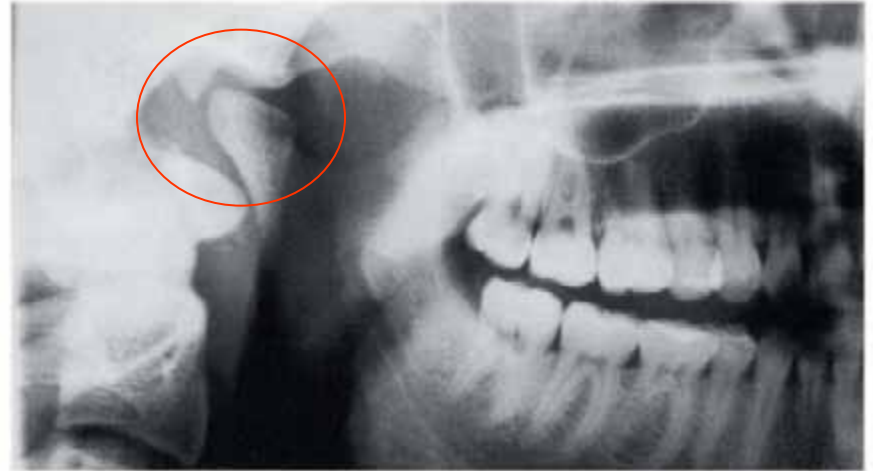
A change in the A/P position of the mandible, due to changes in the position of the condyles in the fossae





Idiopathic condylar resorption is fortunately seldom seen, and is difficult to manage. It can result in unfavorable downward and backward movement of 'B' point during or after orthodontic treatment.



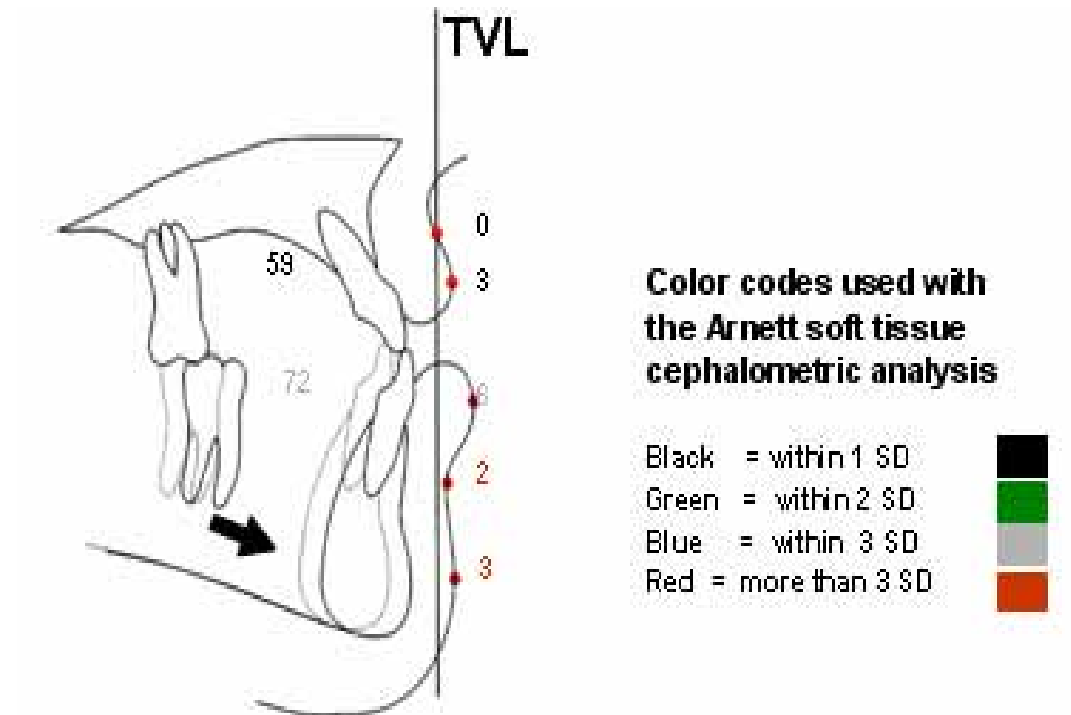


Idiopathic condylar resorption occurs mainly in females. It is not well understood, and fortunately is rare. It can be unilateral. It causes a reduction in the length of the mandible, and this in turn results in an increase in overjet and anterior open bite.

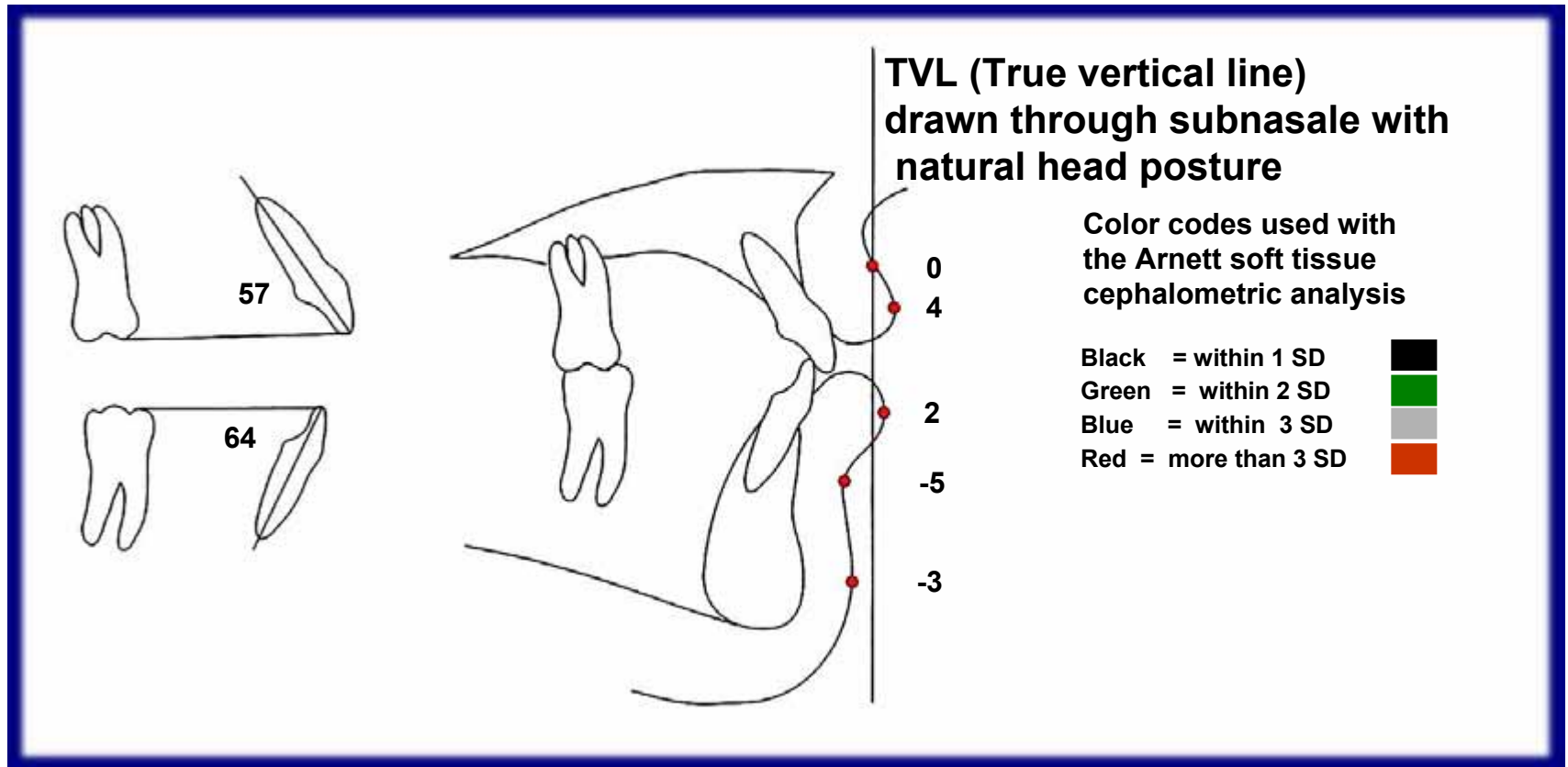


Facial treatment plan

- Soft Tissue Cefalometric Analysis STCA
- Cefalometric Treatment Planing



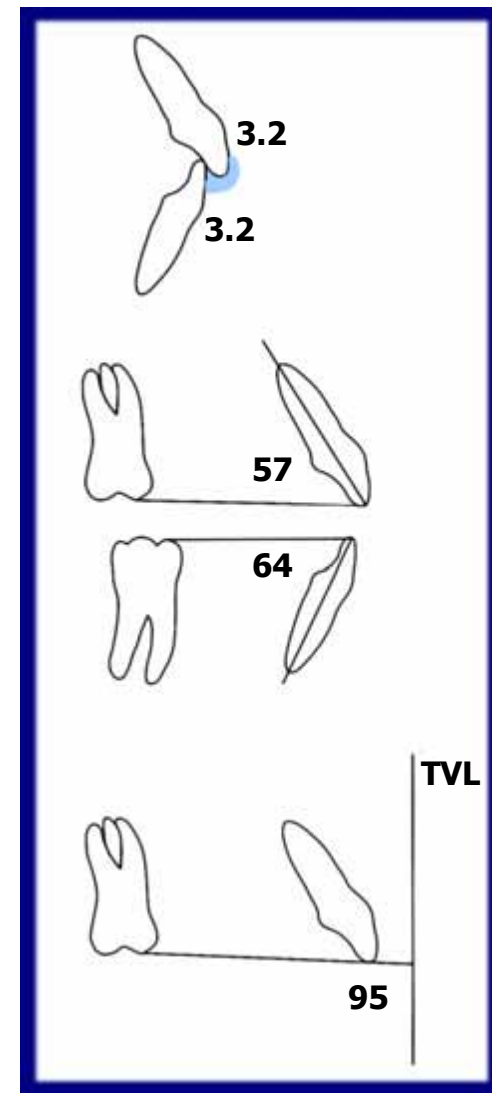
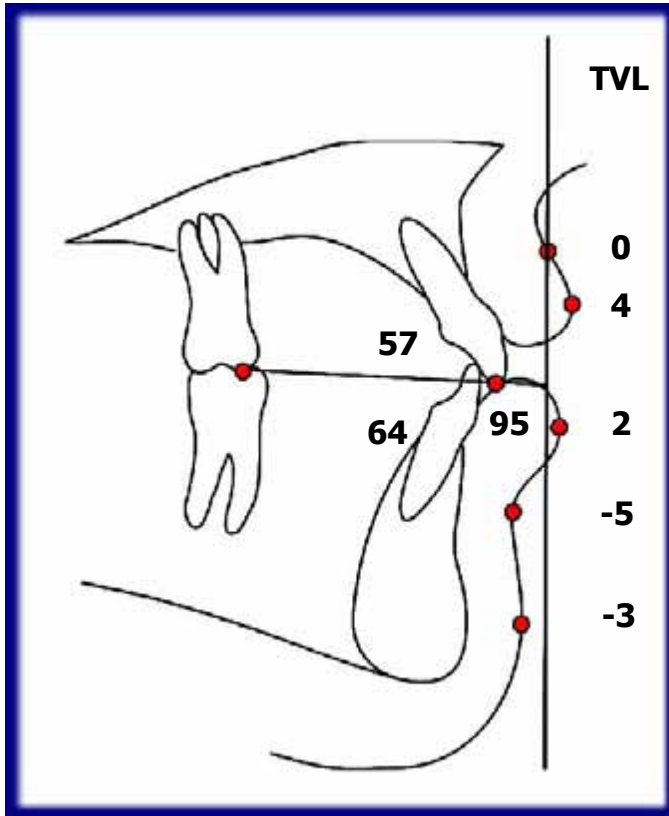




Only seven measurements from the STCA are included here. The upper incisor torque is measured relative to the maxillary occlusal plane and the lower incisor torque is measured relative to the mandibular occlusal plane. In this diagram, the following are projected to the true vertical line (TVL): Soft tissue 'A' point, upper lip anterior, lower lip anterior, soft tissue 'B' point, and soft tissue pogonion. Black numbers are within 1 SD to normal.

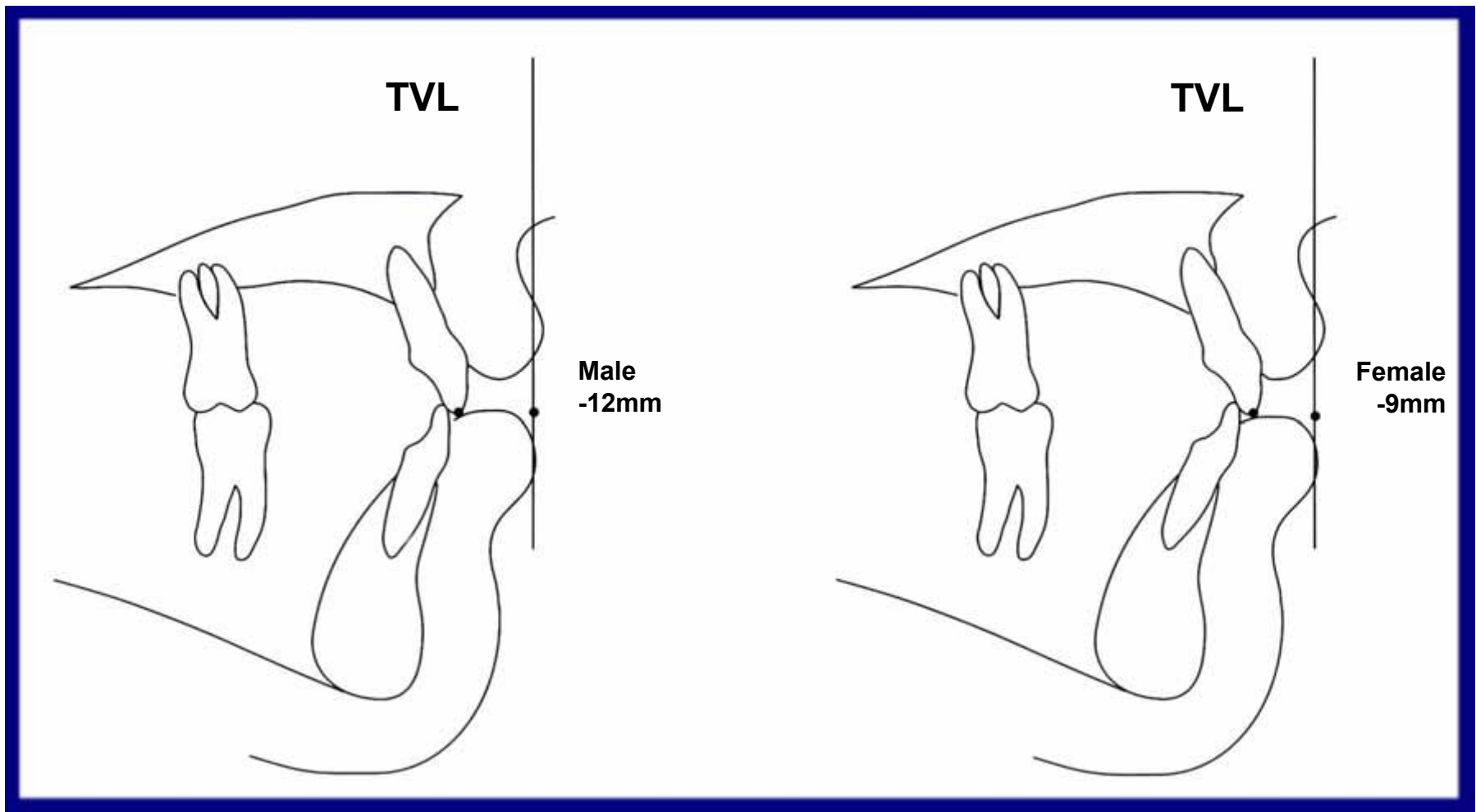


	female	male
• MxOP	95.6 ± 1.8	95.0 ± 1.4
• Mx1 to MxOP	56.8 ± 2.5	57.8 ± 3.0
• Md1 to MdOP	64.3 ± 3.2	64.0 ± 4.0
• overjet	3.2 ± 0.4	3.2 ± 0.6
• overbite	3.2 ± 0.7	3.2 ± 0.7



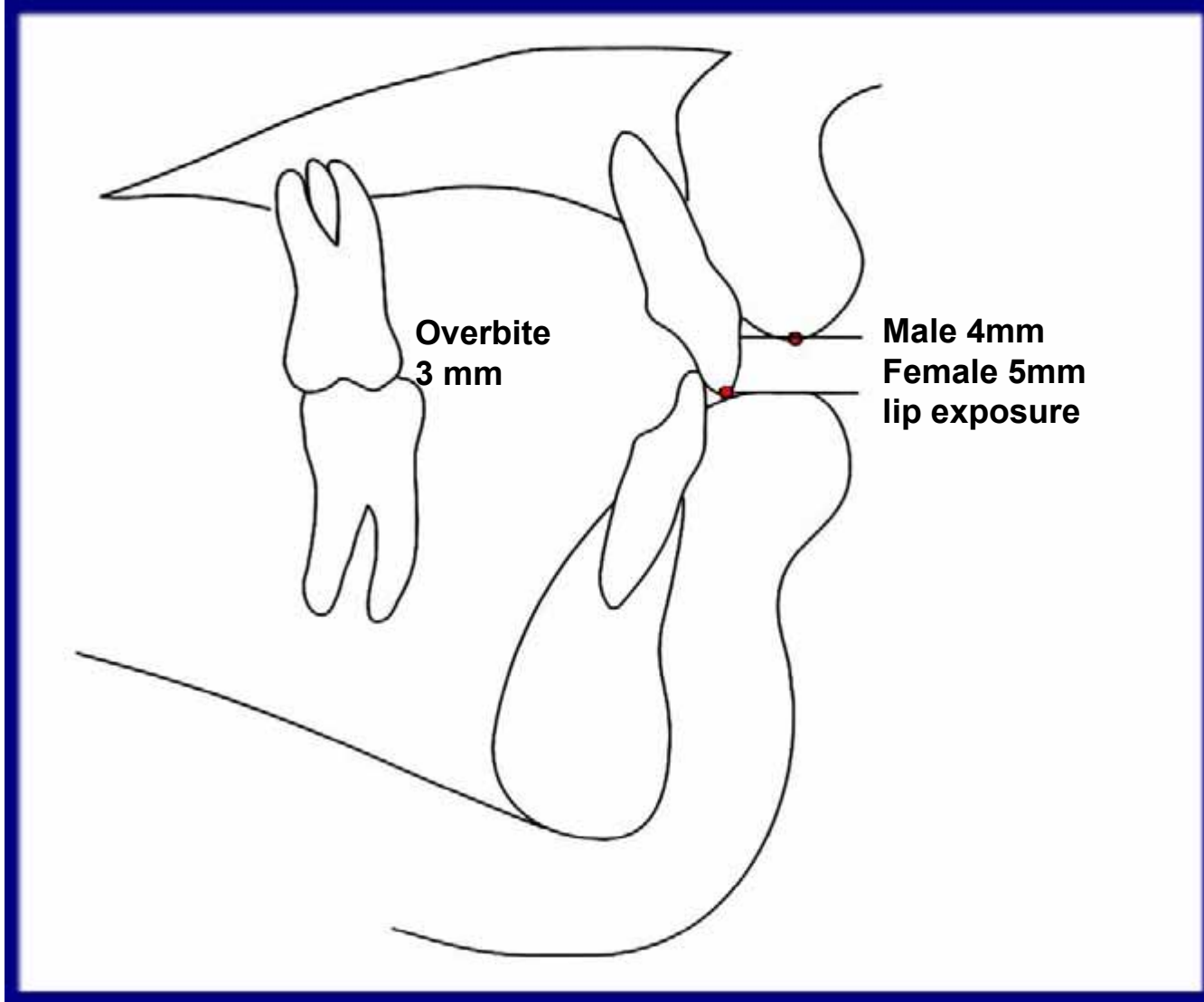
During the final stages of treatment the Arnett analysis may be used to evaluate facial profile and dentoskeletal structures.





The Arnett analysis relates upper incisor position to a true vertical line (TVL) and requires different ideals for males and females.

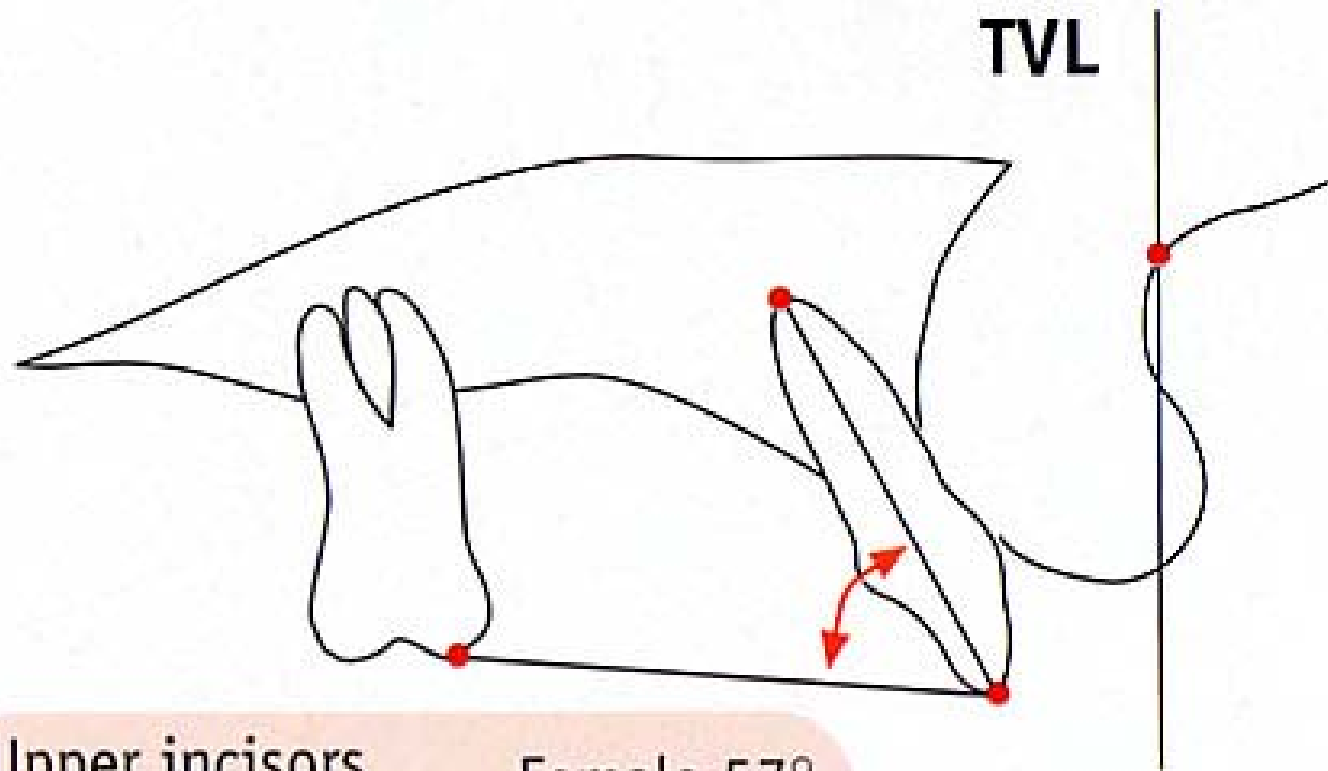




Conventional orthodontic analysis does not provide clear goals for vertical upper incisor position. In contrast, the Arnett analysis quantifies incisor overbite and incisor exposure, with lips at rest.







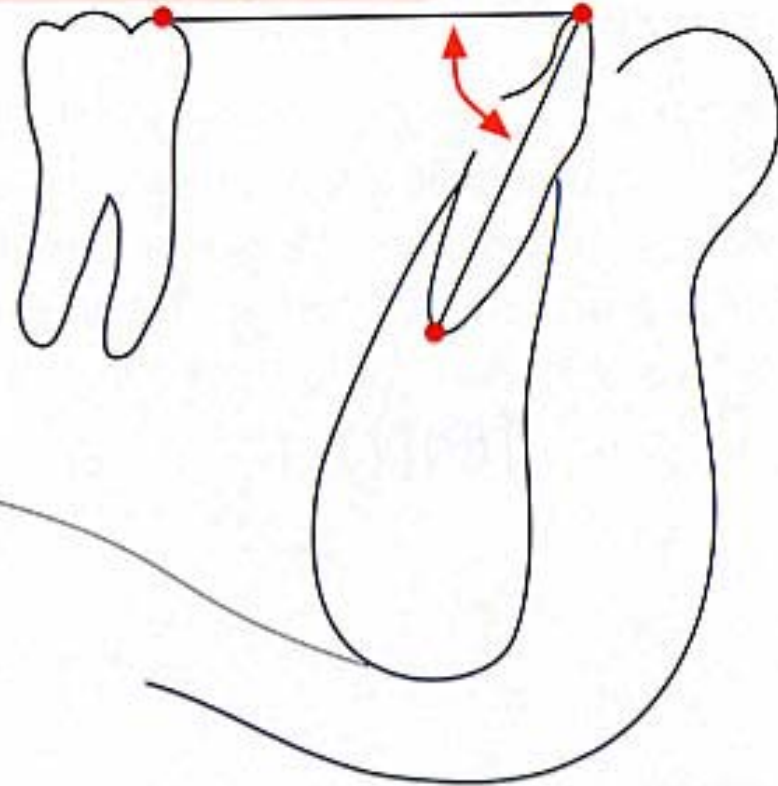
Upper incisors
to maxillary
occlusal plane

Female 57°
Male 58°

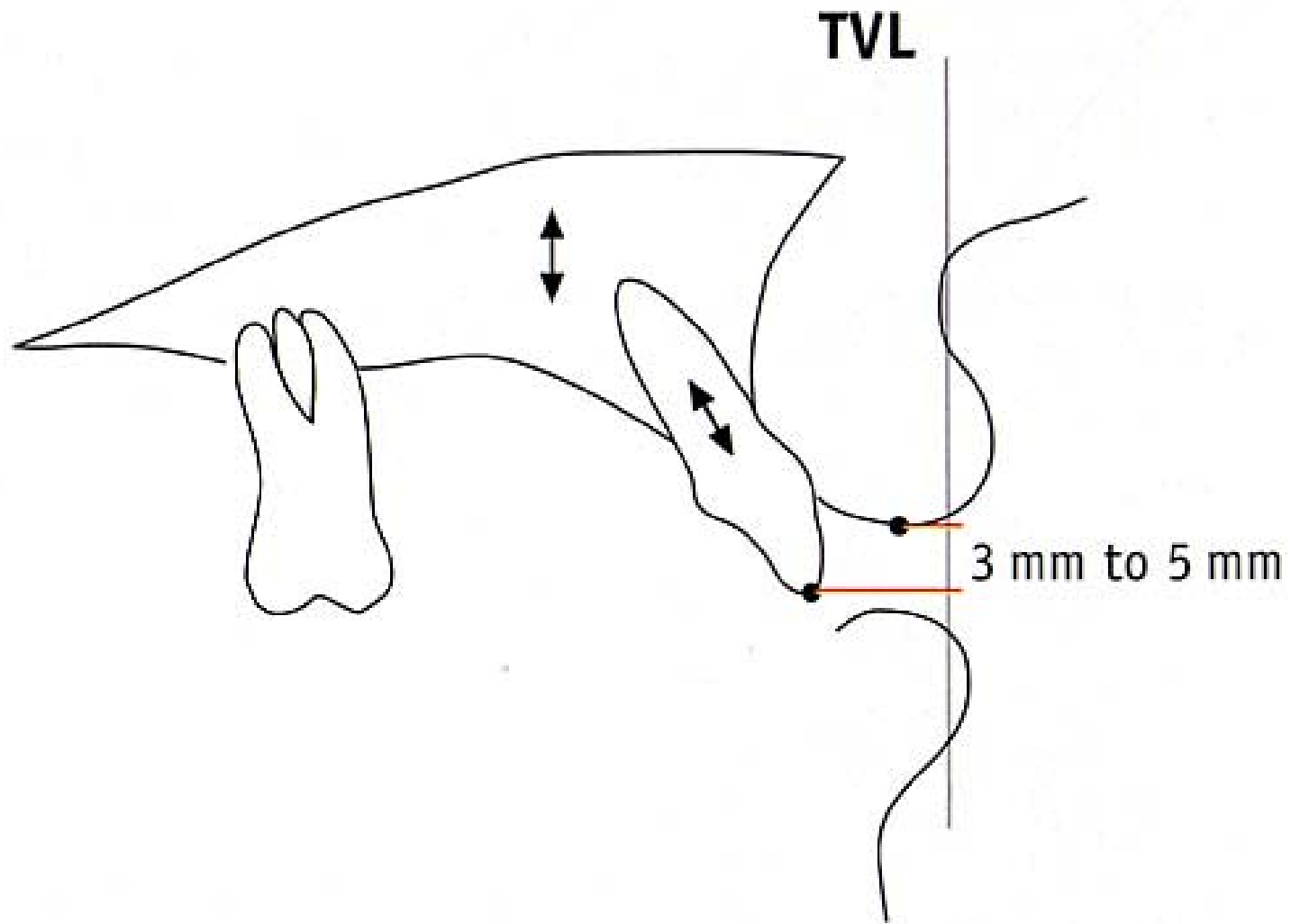


Female and male 64°

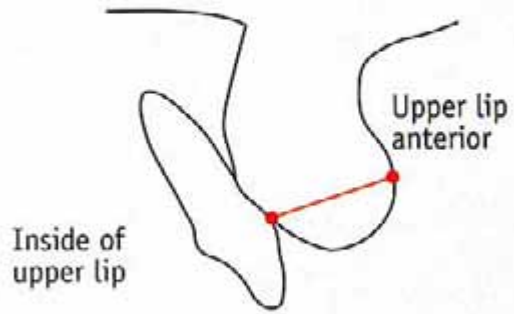
Lower incisors
to mandibular
occlusal plane





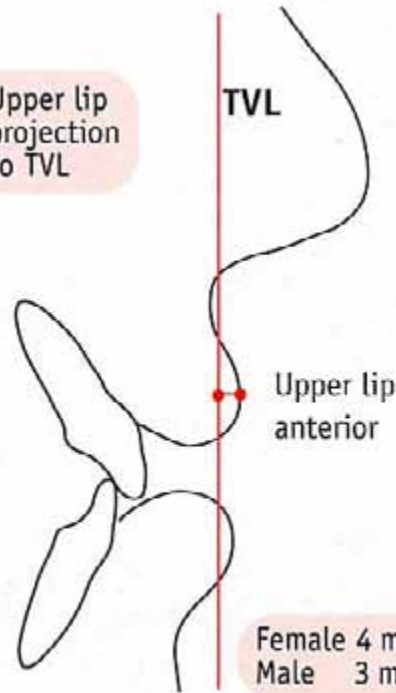


Upper lip thickness



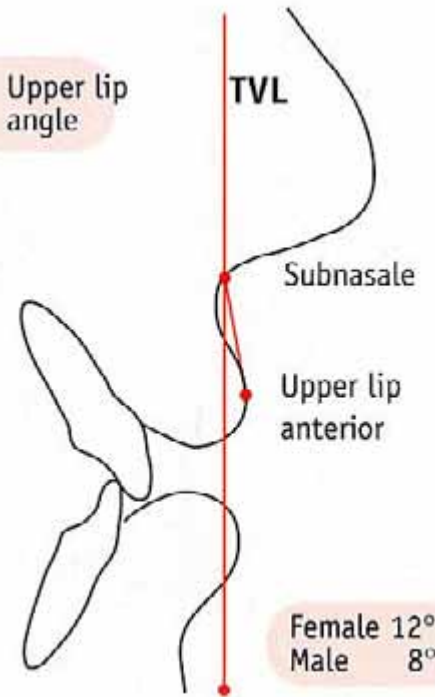
Female 13 mm
Male 15 mm

Upper lip projection to TVL



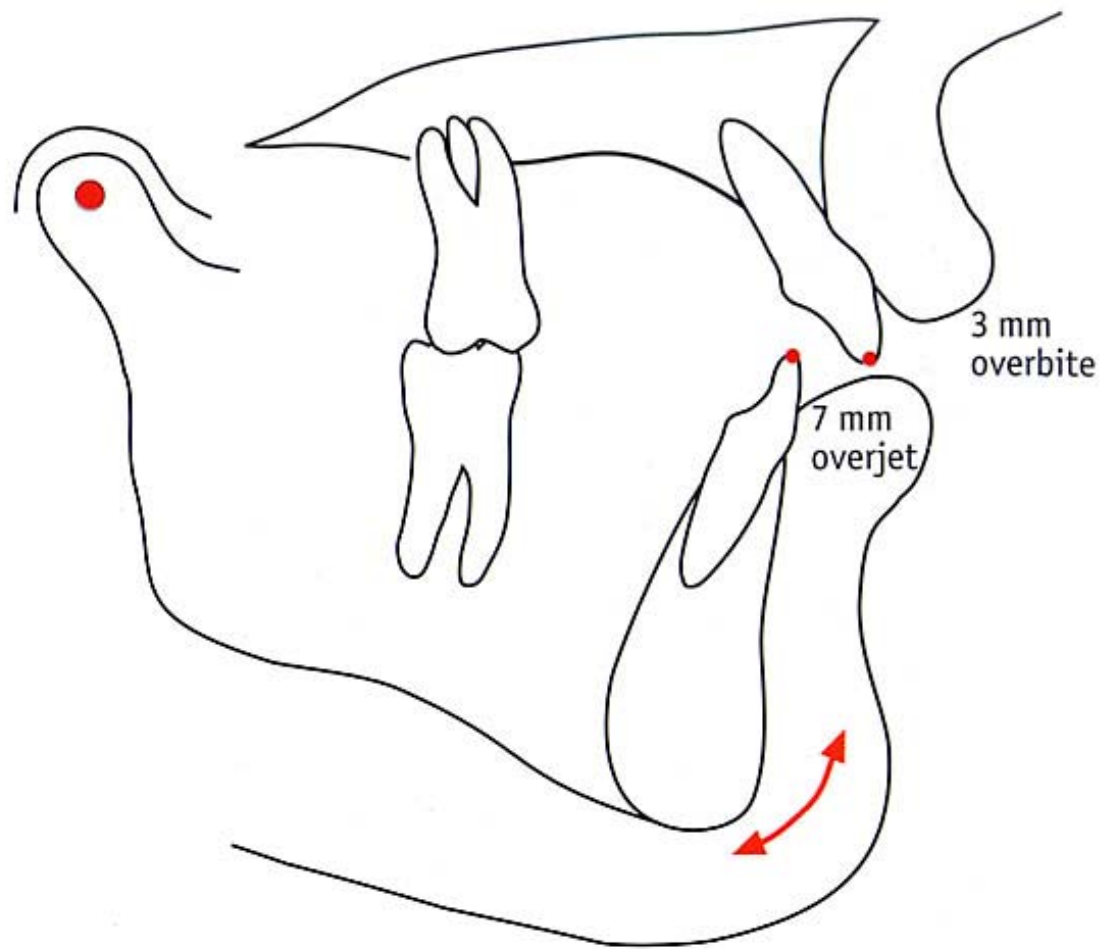
Female 4 mm
Male 3 mm

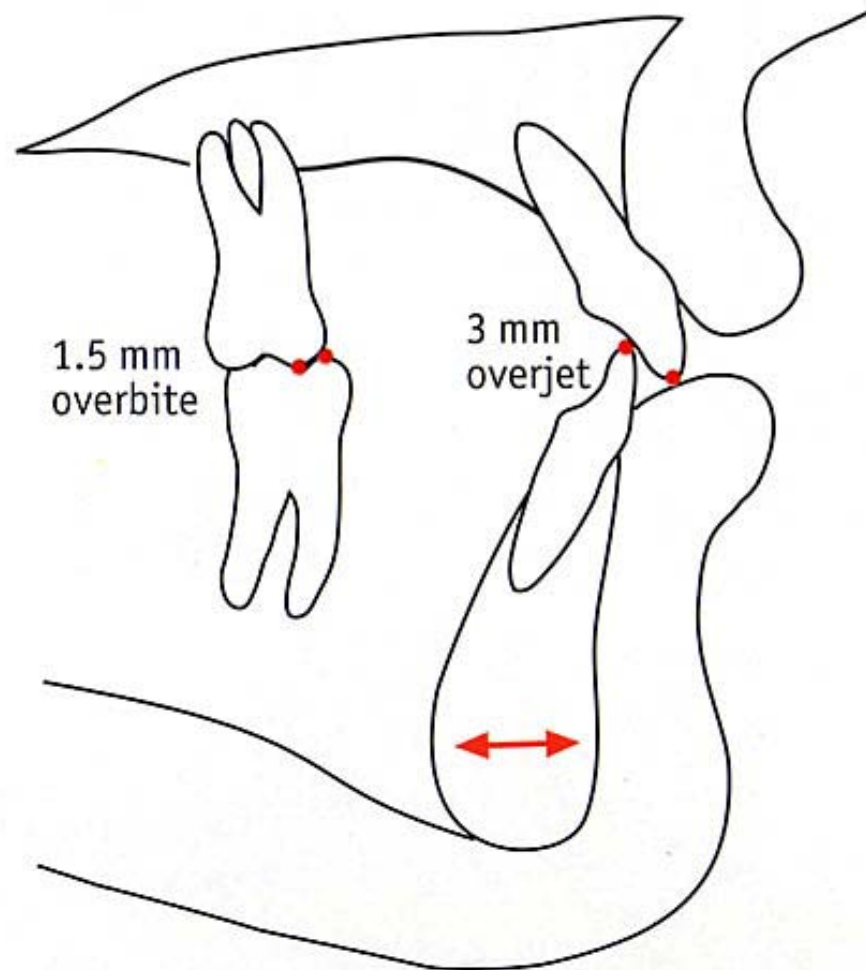
Upper lip angle



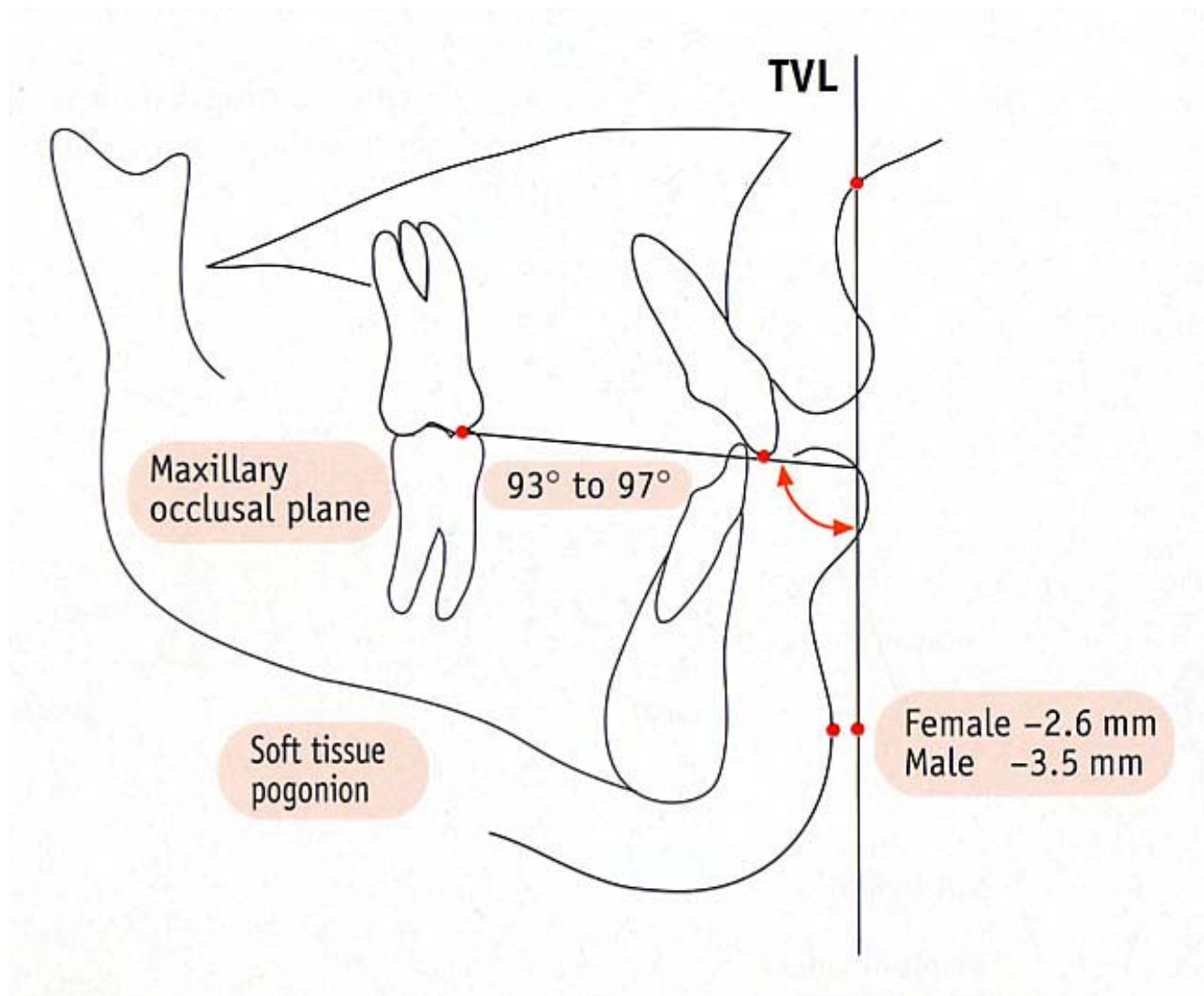
Female 12°
Male 8°

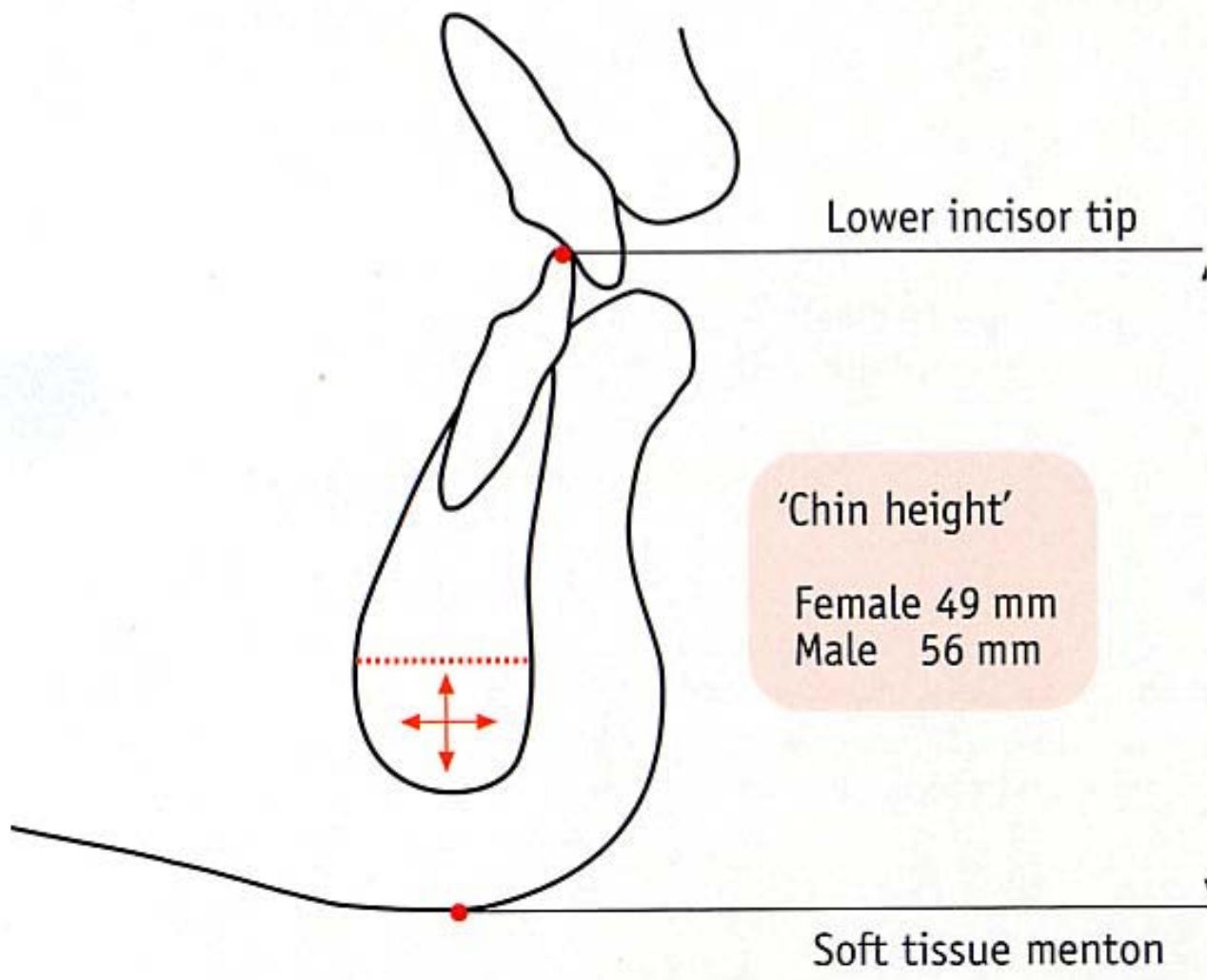








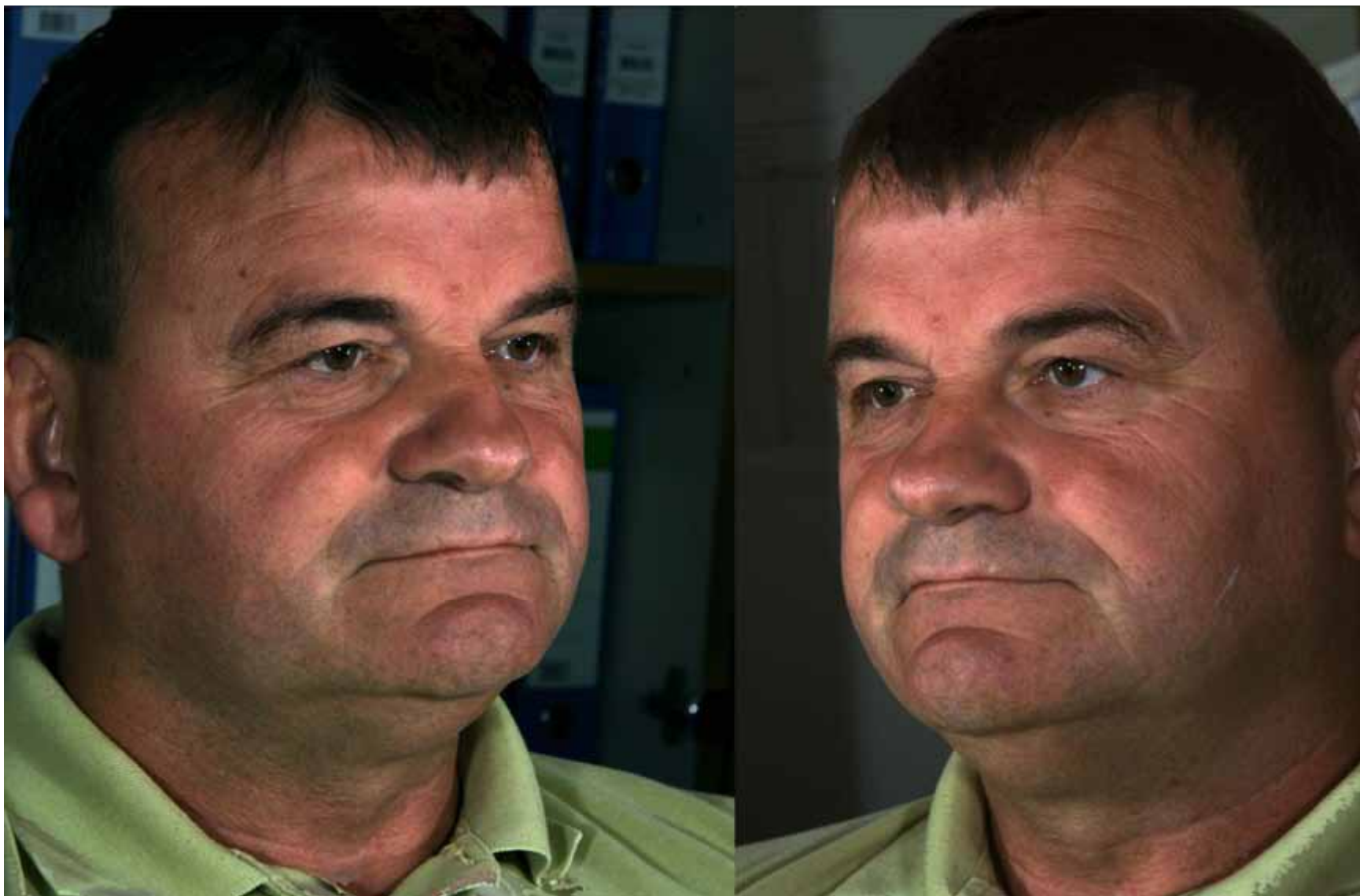




3D Diagnosing

- Patient with disturbance of breathing

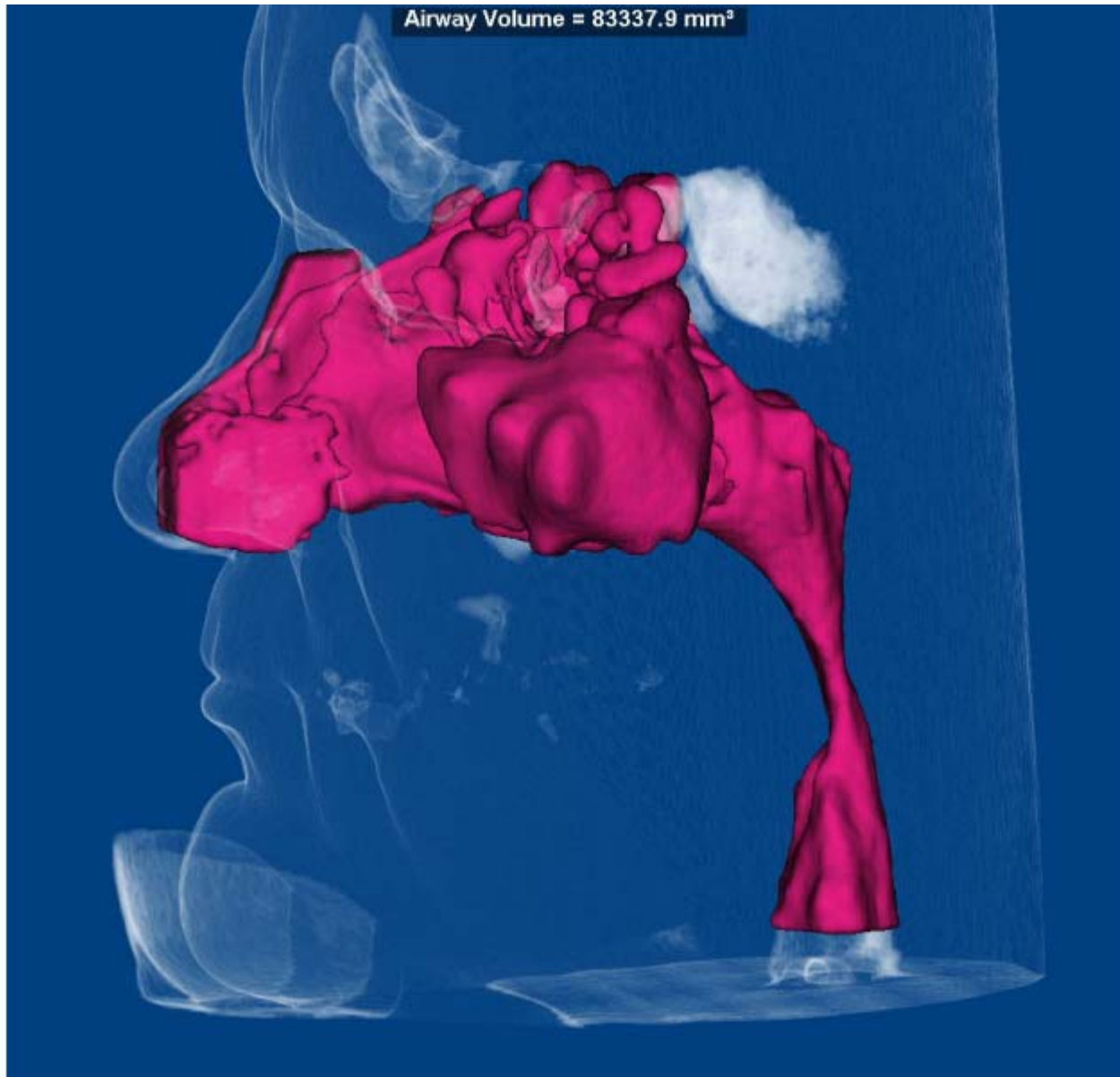








Uroš Mezeg dr. dent. med

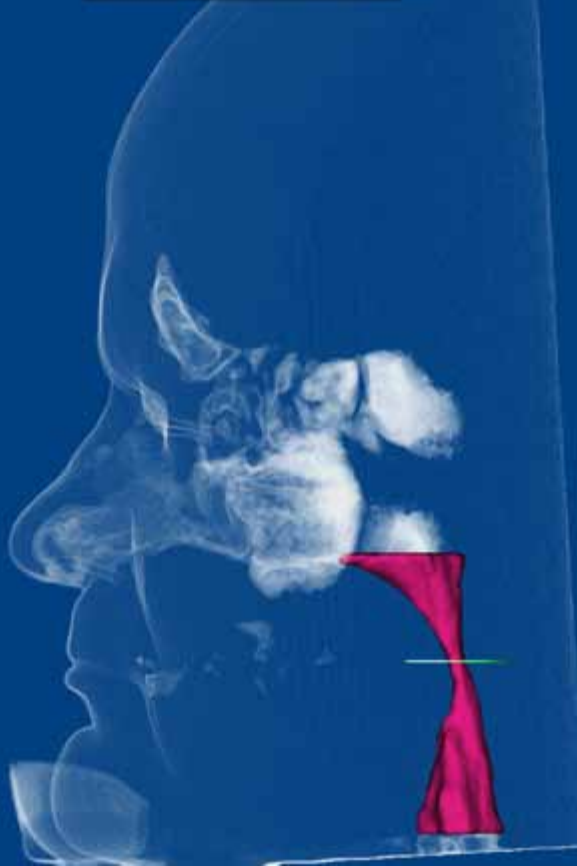




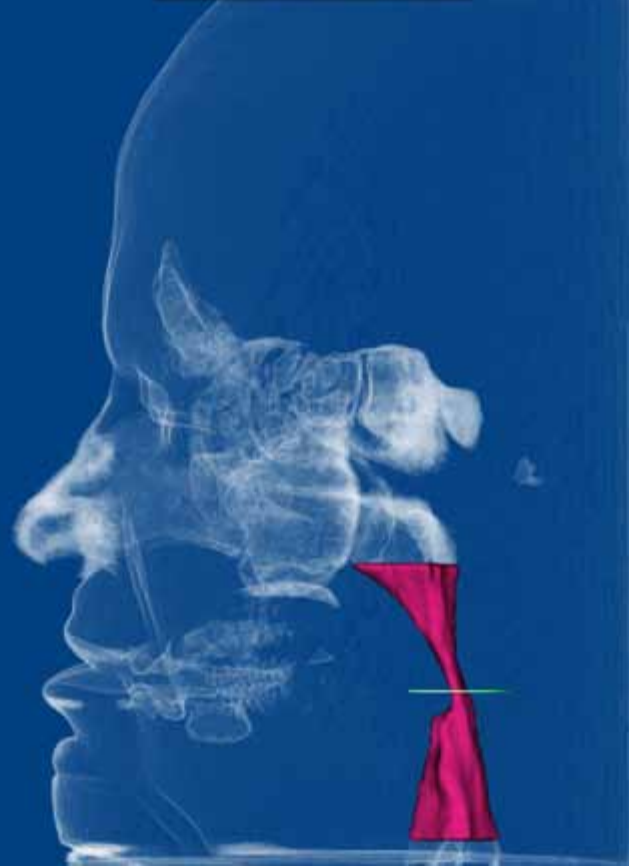




Airway Volume = 12039.2 mm³
Minimum Axial Area = 32.6 mm²



Airway Volume = 11241.3 mm³
Minimum Axial Area = 27.8 mm²



Hvala za pozornost!



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VIRI

- FACIAL AND DENTAL PLANNING FOR ORTHODONTISTS AND ORAL SURGEONS; G. William Arnett, Richard P. McLaughlin
- SYSTEMIZED ORTHODONTIC TREATMENT MECHANICS; Richard P. McLaughlin, John C. Bennett, Hugo J. Trevisi;
- G. W. Arnett:
 - PROGRESSIVE MANDIBULAR RETRUSION part I and II
 - FACIAL KEYS part I and II
 - STCA DIAGNOSIS AND TREATMENT
 - A REDEFINITION OF BSO ADVANCMENT RELAPSE
 - COMPARISON OF SKELETAL AND DENTAL NORMAL JOINTS
 - COMPARISON OF SKELETAL AND DENTAL MORPHOLOGY BILATERAL DJD
 - COMPARISON OF SKELETAL AND DENTAL UNILATERAL DISK DISPLACE
 - FACIAL ANALYSIS



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