

18. Surgical orthodontic treatment of anterior crossbite.

A. Indications for surgical orthodontic treatment of anterior crossbite.

Indications for Surgical - ortho Treatment			
Growing patient		Pseudo Class III	True Class III
		Orthodontic - Short treatment time	Orthodontic & orthopedic ? long treatment time.
Post growth.	Not severe	Orthodontic	Compromised orthodontic
	Severe	Surgical - ortho.	Surgical - ortho.

Most adult pseudo C III cases do not require surgical correction. Only those with severe elongation of the lower anteriors should need surgery to reduce the deep bite.

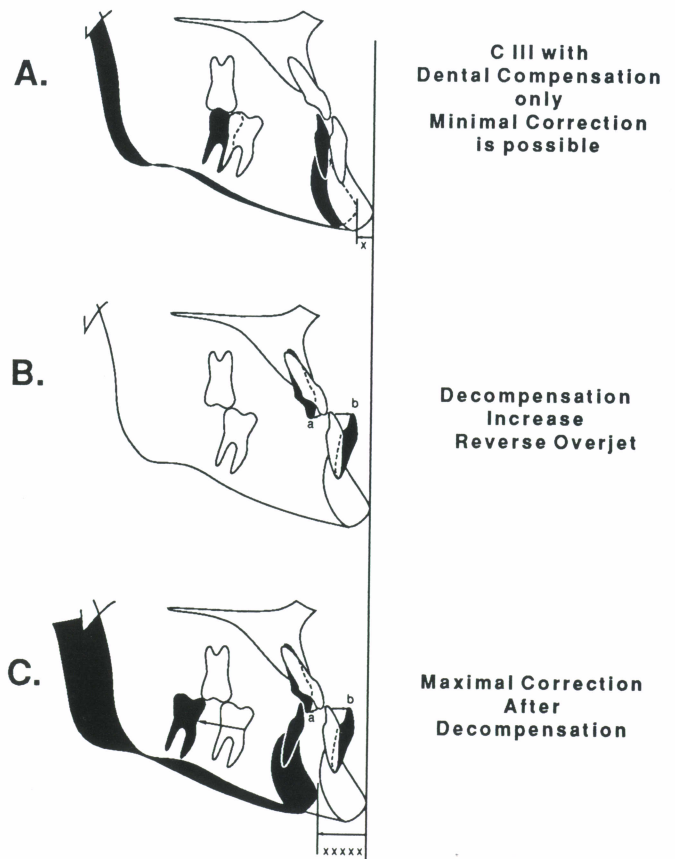
B. Dental compensation and surgical treatment planning.

- A.** Severe C III malocclusion exhibit proclined maxillary anteriors and retroclined mandibular anteriors.

Dental compensation reduces reverse overjet. Surgery planned on the basis of this overjet can achieve only minor amounts of mandibular setback(x); the prognathic profile can be improved only a little.

- B.** Maxillary and mandibular anteriors are decompensated orthodontically. Anteriors are more upright over basal bone and reverse overjet is increased.

- C.** Post-decompensation surgical planning indicates larger mandibular setback(xxxxx) and greater profile improvement.



C. Comparison of results from surgical orthodontic and traditional orthodontic treatment of anterior crossbite.

	Traditional Orthodontics	Surgical - Orthodontics
Dental compensation	Increased	Decreased
Skeletal change	None	Yes
Growth	Post-treatment growth can be a problem.	Treatment occurs after growth
Profile change	Dramatic only due to functional shift.	Dramatic due to skeletal change.

D. Indications for surgical orthodontic treatment of true Class III.

Criteria	Traditional orthodontics	Surgical - orthodontics
ANB difference	small	large
Lower incisors	upright	lingually inclined
Profile at CR	orthognathic	prognathic
Functional shift	yes	no
Mandibular plane angle	low	high
Symmetry	symmetrical	asymmetrical

E. Types of Orthognathic surgery

Orthognathic Surgery		
Method	Maxilla	Mandible
set - back	anterior osteotomy	intraoral oblique ramus osteotomy
advancement	Le Fort I with bone graft	sagittal split ramus osteotomy