

@. Family history.

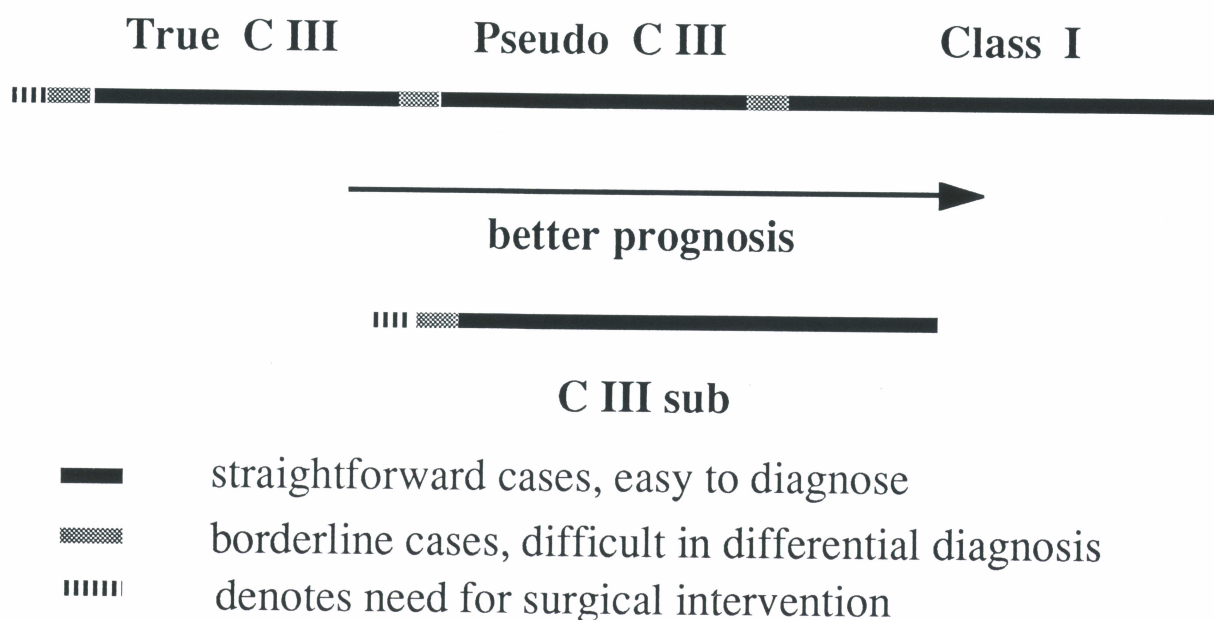
- * The famous Hapsburg royal family had thirty three true C III members out of a total of forty family members. Most orthodontists believe there is a strong hereditary influence on the occurrence of true C III malocclusions.
- * Pseudo C III, just like Class I crowding can result from heredity also.
- * Don't rely on family history too much. **Make differential diagnosis on individual patient is more reliable than on family history.**

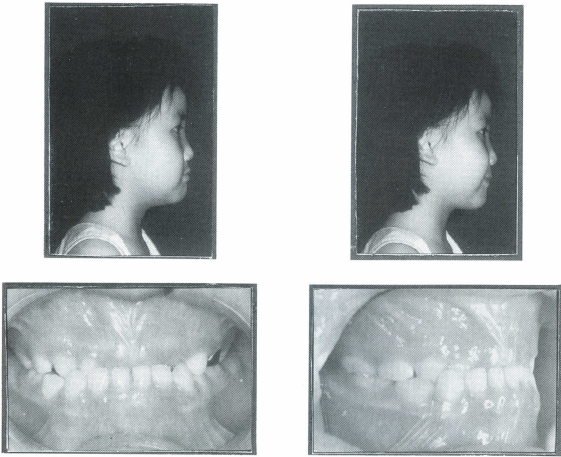
@ ANB difference. (FS of 3 circles diagnostic system)

- * ANB difference at CO is a poor diagnostic indicator for treatment of anterior crossbite.
- * ANB difference at CR is a more reliable cephalometric evaluation for treatment of anterior crossbite.

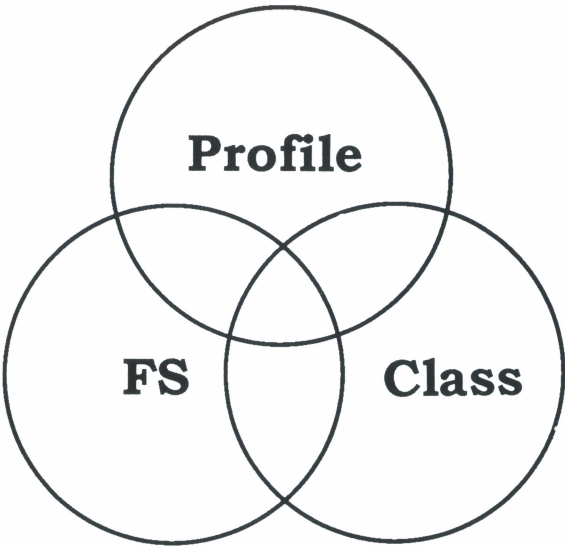
@ Gonial angle.

- * The value of the Gonial angle in pseudo C III is relatively small. If the mandibular plane angle is close to 90 degrees, the chance of being a pseudo C III is higher.

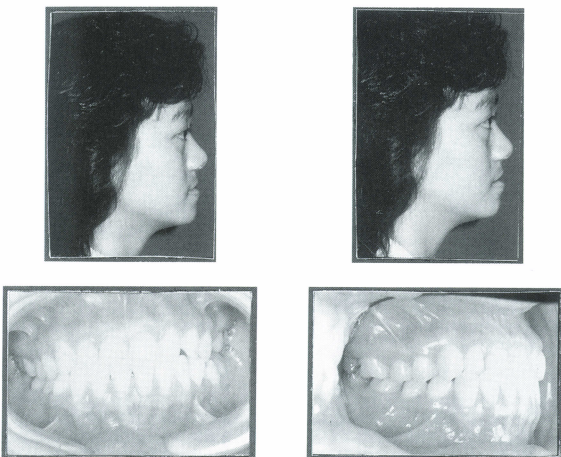
8. Prognosis of anterior crossbite**Prognosis of Anterior Crossbite**



5y

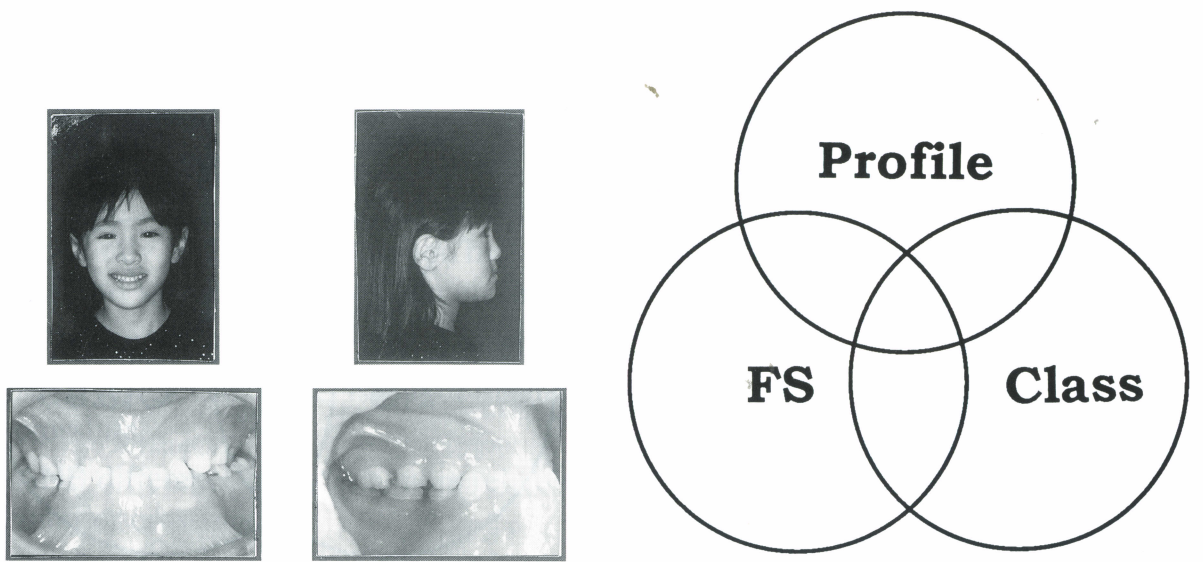


8y5m

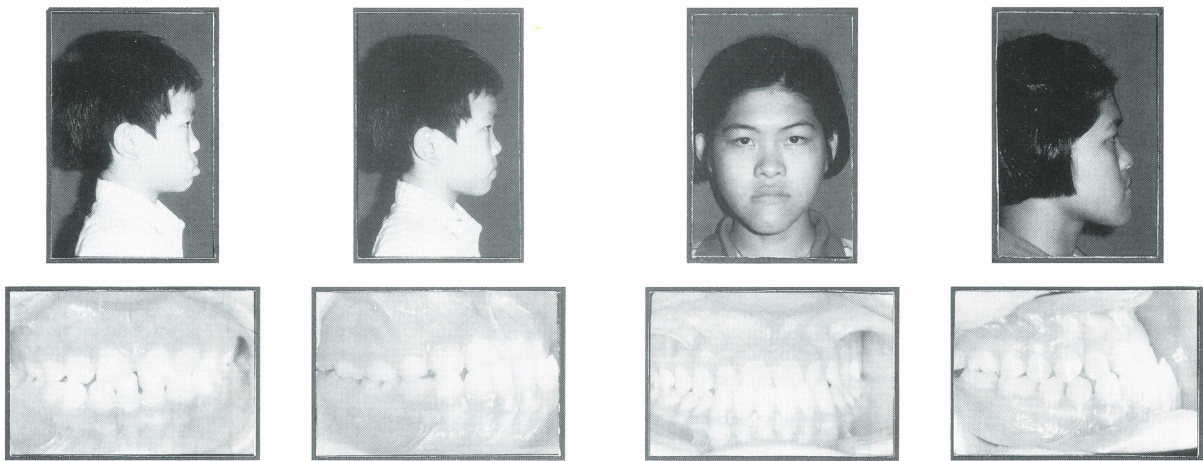


23y

Diagnosis of Pseudo C III



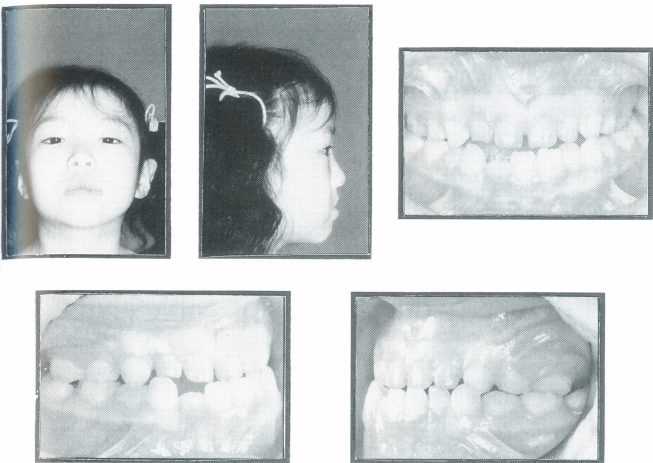
6y1m



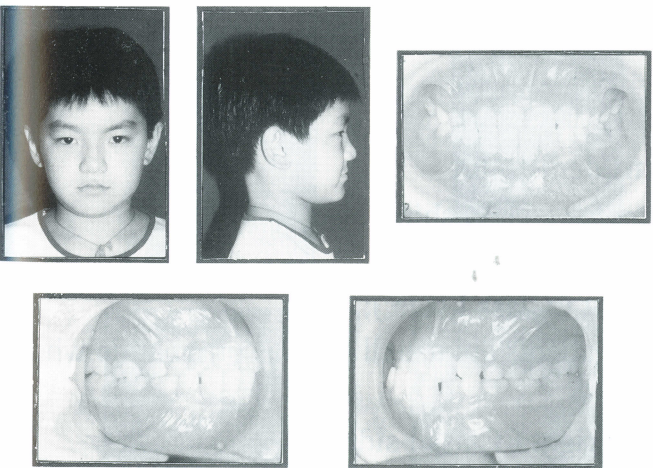
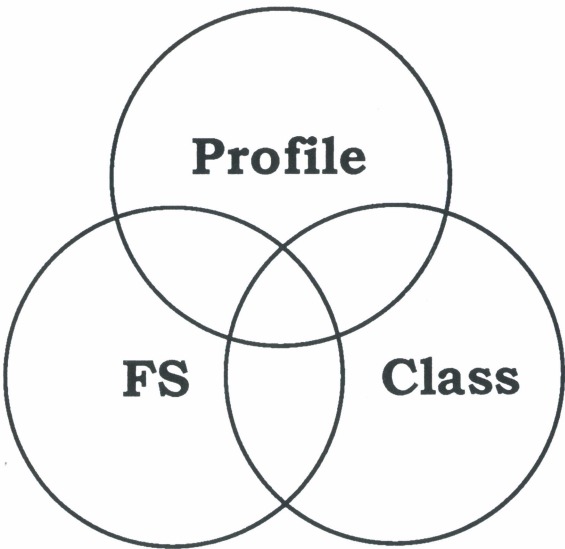
9y10m

17y

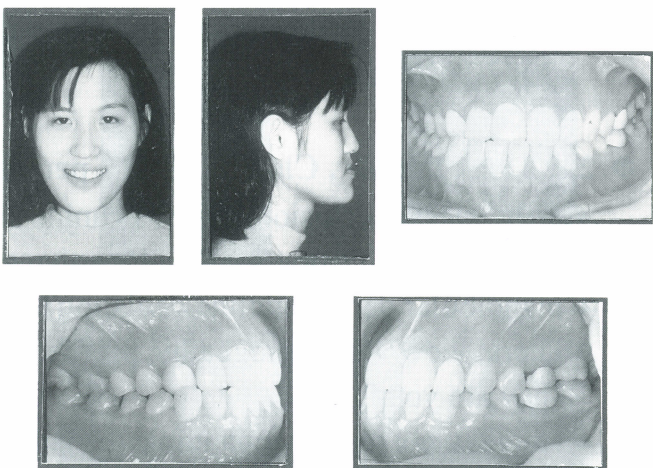
Diagnosis of True C III



6y2m



9y11m



22y11m

Diagnosis of Class III sub

What can we learn from these cases ?

✱ 6y 2m , female , Class III Sub , primary dentition

- ◆ right buccal occlusion; Class III canine with a large mesial step;
- ◆ left buccal occlusion; Class I canine with a flush terminal plane;
- ◆ mandibular dental midline deviation to left (Class I side);
- ◆ lateral view with orthognathic profile (easily neglected during an early diagnosis);
- ◆ frontal view with the mandible deviated to the left (Class I side);
- ◆ look at the occlusion and the frontal photo carefully; early diagnosis is possible and important.

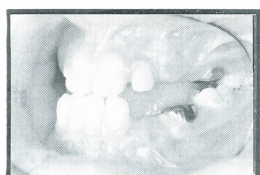
✱ 9y 11m , male , Class III Sub , mixed dentition

- ◆ right buccal occlusion - Class I canine, flush terminal plane;
- ◆ left buccal occlusion - Class III canine, big mesial step;
- ◆ mandibular dental midline deviation to the right (Class I side);
- ◆ lateral view with an orthognathic profile (easily neglected during an early diagnosis);
- ◆ frontal view with the mandible deviated to the right (Class I side);
- ◆ look at the occlusion and frontal photo carefully; it is very important when making an early diagnosis

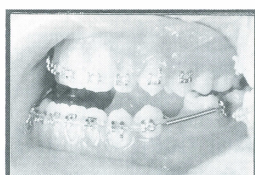
✱ 2?y 11m , female , Class III Sub , permanent dentition

- ◆ right buccal occlusion - Class I canine and molar relationship;
- ◆ left buccal occlusion - Class III canine and molar relationship;
- ◆ mandibular dental midline deviation to the right (Class I side);
- ◆ lateral view with a prognathic profile; (these patients are usually not as prognathic when they are young);
- ◆ frontal view with the mandible deviated to the right (Class I side);

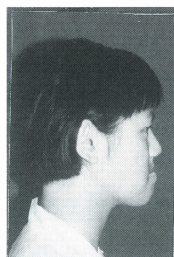
- ✱ Most of the Class III Sub, while they were young, look at their frontal photo and profile, it is easily be neglected the asymmetry, because when they were young the frontal view asymmetry is not obvious and usually with orthognathic profile. If we look at frontal photo very carefully we can identify the asymmetry, especially if we look at the occlusion very carefully, Class III Sub can be very easily diagnose.



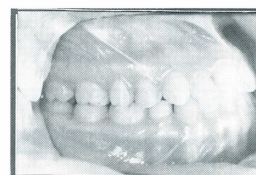
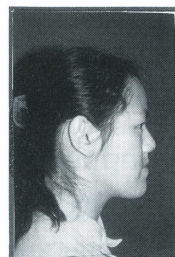
9y8m



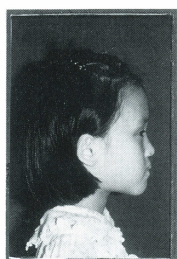
12y5m



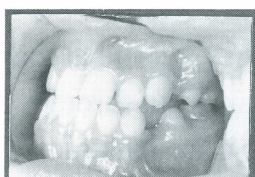
17y6m



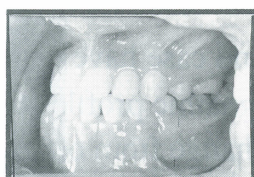
20y2m



9y6m



12y7m



13y8m



15y8m

Bite Depth and Prognosis of CIII

What can we learn from these cases ?

True Class III with deep bite and a better prognosis

True Class III with open bite and a poorer prognosis

✱ **Left upper case , female**

A true C III orthognathic profile with an anterior edge to edge bite at 9y 8m that worsens during treatment and became a severely prognathic profile with an open bite Class III at 12y 5m. This patient now has a poor prognosis.

✱ **Right upper case , female**

A true C III orthognathic profile with an anterior deep bite at 17y 6m. During post - orthodontic treatment, this patient still displays a Class III orthognathic profile.

✱ **Lower case**

◆ **9y 6m , female**

A Class III patient with orthognathic profile, but anterior teeth edge to edge bite.

◆ **12y 7m**

remove 4 first bicuspid to solve the space problem.

◆ **13y 8m**

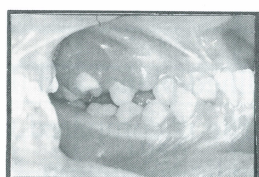
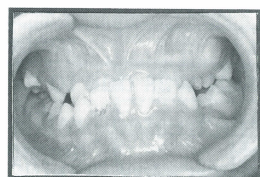
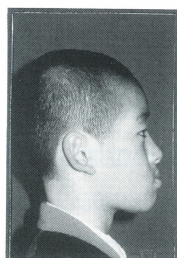
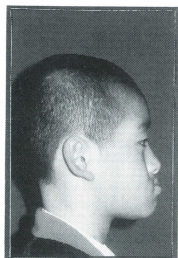
Post orthodontic treatment, there is enough overbite and overjet and with Class I buccal occlusion.

◆ **15y 8m**

Through growth patient became Class III open bite and prognathic profile.

- ✱ Both left upper case and case have edge to edge overbite at the beginning. Even though they were both have orthognathic profile at beginning, but through growth, the bite just kept opening and profile change from orthognathic to prognathic.

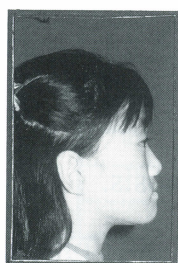
Functional C III



11y

poor CR profile
poor prognosis

good CR profile
good prognosis



9y3m

9y3m

9y9m

Prognosis of Functional C III

What can we learn from these cases ?

✱ **Upper case , male , 11y**

left : very prognathic CO profile, right : moderate prognathic CR profile. Even though the patient has functional shift, but the prognathic CR profile means the prognosis is poor, since orthodontic treatment alone can not change the patient's CR profile.

✱ **Lower case , female , 9y 3m vs. 9y 9m**

- ◆ This treatment was excellent and rather dramatic was it not ? Do you think the result came from orthopedic or orthodontic movement ?
- ◆ Actually, this patient was treated with an inclined plane, and the result was due to dentoalveolar movement only. If the CO profile is compared with the treated profile, this treatment result will be considered an orthopedic correction. Nevertheless, when the CR profile is compared with the treated profile, it doesn't seem dramatic at all. Unfortunately, clinicians frequently display beginning CO profiles and compare them with treated results that exaggerate the difficulty of the case. It is quite misleading.
- ◆ This is an example of the dramatic change one can achieve with " pseudo-orthopedics " that takes advantage of the original CR-CO positional difference.
- ◆ CR profile cannot be changed by orthodontic treatment alone. Although this treatment seems dramatic when compared with the original CO, the changes from CR is not significant.
- ◆ Functional C III with an orthognathic CR profile that has a good prognosis.

✱ **Functional Class III is not pseudo Class III, its prognosis depends on patient's original CR profile.**