**Dental features can be classified into :**  
-defects related to lost tissues and structures (embryonic)  
-consequences of surgical repair (iatrogenic)  
  
Site of the cleft usually in the area of **maxillary lateral incisor** so patients might have:

-missing or ectopic lateral incisor  
-malformed lateral incisor or peg shaped  
-extra supernumerary teeth  
-teeth adjacent to the cleft (premolars and incisors) are always inclined toward the cleft  
- problems in teeth eruption especially the canines because if there is no bone,teeth will not erupt.That's why we need to repair to ensure that we have enough bone for the teeth to erupt.  
-increased hypodontia and microdontia  
Sometimes it is difficult to know if the teeth are congenitally missing or they are removed by the plastic surgeon and sometimes it can be a combination .  
-malalignment of teeth  
-impacted teeth  
-crossbites which is very common  
Interferences of facial growth is secondary to surgical repair.As early surgical repair will lead to scar tissue (secondary healing).The scar tissue will hold both segments of the defect and this interferes with the normal development of maxilla.  
So the growth of the maxilla as compared to the mandible is retarded and can lead to mid face deficiency.  
So patients with clefts have class III due to retrognathic maxilla but the mandible is normal in shape and size and they have crossbites in both planes (transverse and anterio-posteriorly).

A study was done to compare between control group(normal patients with no clefts) and patient with clefts that are not repaired.These patients were found mainly in far east because they think there that people with clefts have more power so they don't repair them !  
They found NO increase in incidence of class III in non-repaired clefts compared to controls and the development of maxilla is normal too.  
That proves that early surgical repair interferes with the normal development of maxilla and is the cause of class III and crossbites.  
  
**The two features that can't be restored to normal are:**  
Speech and facial appearance.  
Whereas dental features can be restored and even the class III skeletal pattern can be corrected by orthognathic surgery so nothing to worry about.  
 The facial appearance is mainly related to surgery so with advanced plastic surgery,the patient can have a nice esthetic appearance .So the problem mainly is in the speech.  
  
\***Psychological aspect:**many researches have been done on this topic.They found that clefts don’t cause major psychological problems.It may cause anxiety but nothing significant.  
Psychological problems –if exist- are usually related to speech rather than esthetic.  
  
-Usually they have problems in hearing,ear problems,common ear infections (fluid accumulation) and problems in connection between mid ear and throat and that affect speech.  
  
**Management**:  
Ideally if you repair the cleft the sooner,you promote the child to develop normal speech.The problem in clefts is that there is oronasal communication so they can't produce normal sounds,if you close the communication they will be able to speak as long but the problem if you repair early, you interfere with the normal maxillary development !! So there is 2 factors to be considered.  
Ideally if you repair before 1.5 years of age,they will have normal speech.  
If repair is done after 4 years of age usually it is difficult to manage speak and as the patient grows,the more poor the chances are.  
So repair is ideally done before the age of two (at 1.5-2 years of age)>>I am not very sure.  
  
**Neonatal diagnosis**:  
With the development of 3D and 4D imaging, clefts can be diagnosed before delievery.  
Usually these advanced images are taken at 3,5 and 7 months.  
Clefts can be diagnosed at 3 months.  
Lip cleft (accuracy about 70%) is easier to diagnose than cleft palate.

**Ultrasound techniques:**  
-transabdominal  
-transvaginal  
Advantages: psychological support to parents and to prepare them.  
When the child is born with clefts with no previous diagnosis,that leads to panic for the parents and medical workers as well because in our countries there is no protocol how to deal with these situations.(how to feed the baby,when to do the surgery and so on…)  
  
In foreign countries,cleft cases should be registered and transferred to specialists.