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Cleft Lip and Cleft Palate



What is the cleft lip?

In these cases, the upper lip is divided and this shows an opening or gap on the outer surface that sometimes extends to the upper gum or to the nose including the upper jaw bones, Cleft lip is the most frequent birth defects in the head and face area.

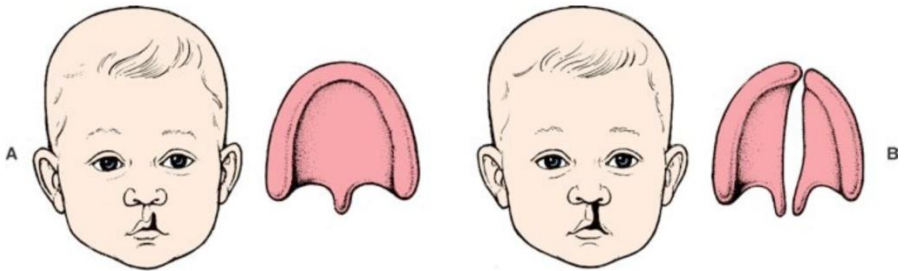
What is the cleft palate?

It means the palate is not completely closed, which separates the oral cavity and the nasal cavity, which may affect both the front bone, or the back muscular part of the roof of the mouth (palate).

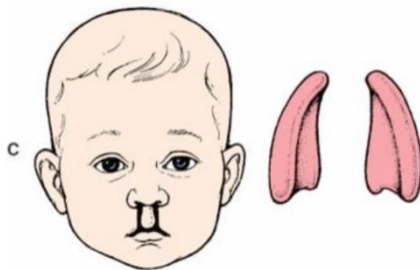


What are the types of cleft lip and palate?

1. **Unilateral cleft lip** (often on the left side): It may be accompanied by cleft palate and sometimes it may be complete to include the nose.

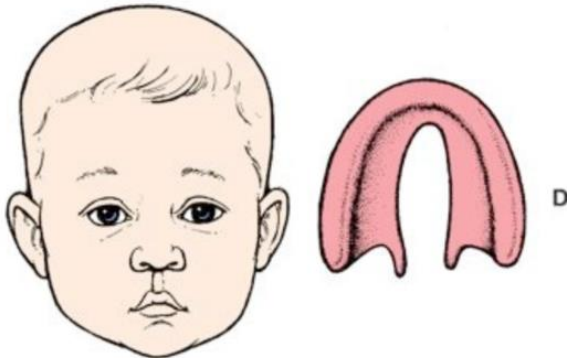


2. **Bilateral cleft lip**: It may be accompanied by cleft palate and sometimes it may be complete to include the nose.



What are the types of cleft lip and palate?

3. Isolated cleft palate: it may include the bone, the muscle or both.



Why do cleft lip and palate occur?

In most cases the causes are still unknown, often due to a range of genetic and environmental causes, the most important of which are:

1. Genetic causes:

The incidence of these defects increases in families where one of their members has been affected before, or in cases of consanguineous marriage.



Why do cleft lip and palate occur?

2. Environmental causes:

Environmental causes include:

- ❖ **Medicines:** When the mother takes certain types of medication during pregnancy, this may have some side effects on the fetus.

For example:

Convulsion control drugs, some heart medications, skin medications containing, cortisone and steroid.

- ❖ **Viral Diseases:** if during the first months of pregnancy, the mother developed some viruses such as rubella, influenza.



Why do cleft lip and palate occur?

2. Environmental causes:

❖ Malnutrition:

Severe deficiency of important nutrients such as vitamins, minerals and essential salts. For example, folic acid is one of the vitamins necessary for the tissues that make the lips to join correctly in the first weeks of pregnancy.



What are the health problems that are associated with cleft lip and palate?

➤ Hearing and middle ear infections (Otitis media):

The muscles of palate (roof of the mouth) help equalize the pressure of the middle ear by connecting the middle ear to the pharyngeal cavity. (In case of cleft palate, the muscles lose their ability to equalize the pressure of the middle ear) resulting in low pressure, fluids buildup, which gradually weakens the sense of hearing and causes repeated infections.

Therefore, it is very helpful to place specific tubes in the child's ears drum to help them drain fluids and pressure equation.



What are the health problems that are associated with cleft lip and palate?

➤ Lactation problems:

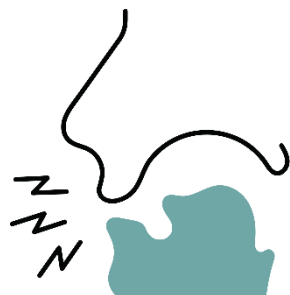
In these cases, it is difficult for the baby to latch on to the nipple properly and to suck sufficiently. Fortunately, there are bottles designed to help the affected baby get liquids from the mouth directly into the stomach.



What are the health problems that are associated with cleft lip and palate?

➤ Speech disorders:

The back muscle of palate helps in closing the nasal cavity off from the mouth when speaking and swallowing, this allows proper pronounsiation from the mouth and prevents refluxing the food and drinks into the nose. If there is a cleft, letters exit through the nose, not the mouth causing muffling of the voice and making it difficult to understand the child's speech (surgical treatments help solve the problem, but do not replace speech therapy).



What are the health problems that are associated with cleft lip and palate?

➤ Dental disorders:

The cleft lip is associated with insufficient formation of the upper jaw and crowding teeth leading to an increase in the proportion of decay and the need for dentures or orthodontist care

Psychiatric disorders:

It involves both the parents and the child. Parents may feel guilty and often try to find a cause or blame, when in fact these defects are caused by several reasons and are often unknown.



What are the health problems that are associated with cleft lip and palate?

➤ Psychiatric disorders:

For a child being different from his or her peers, this may expose him or her to bullying by other children. Here comes the role of parents to enhance the child's self-confidence and the role of the school in raising the awareness of acceptance and non-bullying. Some cases require the intervention of a psychologist.



How to treat cleft lip and palate?

Cleft lip and palate treatment should be in stages. To obtain the best results, treatment must be supervised by a team doctors from several specialties.

➤ Immediately after birth:

An infant with cleft lip and palate should be evaluated by the pediatrician to ensure that there are no other birth defects.

How to treat cleft lip and palate?

➤ Nutritionist:

to teach the mother how to breast feed the child and ensure appropriate weight gain.

Some surgeons prefer to use special devices or tapes that help reduce the size of the cleft to ensure the best possible result.



How to treat cleft lip and palate?

➤ 3 months old:

Cleft lip is treated when the child reaches three months of age, child's weight must be suitable for the surgery. The surgery may be delayed if there is any other defect in the heart or other vital organs.

➤ 9 – 18 months old:

The palate repair procedure is performed with the installation of drainage tubes in the eardrum.

➤ 3 Years old:

Speech therapy begins to train the child to pronounce letters correctly.



How to treat cleft lip and palate?

➤ 5 years old:

Speech and letter exits are assessed by the speech therapist and ENT physician before entering school, in case the child needs additional speech correction.

➤ 7 years old:

Follow up with the dentist and orthodontist to treat tooth decay, if any.

➤ 9 -12 years old:

Some children may need a bone graft to allow the canines to descend, or orthodontics to maintain proper dental alignment.



How to treat cleft lip and palate?

- 15-18 years old:

If non-surgical orthodontics fails to achieve a proper occlusion, the patient may need maxillary advancement surgery, mandibular osteotomy surgery or both.

- 20 years old (upon completion of facial growth):

Rhinoplasty and nasal septum correction as needed.



Sources and references:

Some illustrations used from Canva.com and some provide by Surgery department.

Review and audit:

The content of this booklet has been reviewed by consultants in the Department of plastic Surgery at King Fahd University Hospital.

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Health Awareness Unit

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