What is Cleft Lip and Palate?

Some Basic Points About Cleft Lip and Palate

➤ Cleft Lip and Cleft Palate are correctable birth defects
➤ The condition affects approximately 1 in every 700 babies in Ireland.
➤ It is the most common birth defect of the head and neck region.
➤ It occurs in the early weeks of pregnancy. During this time the face is being formed - the top and the two sides develop at the same time and grow towards each other, finally fusing in the centre. For some reason in a child with a cleft lip and/or palate this final closing does not fuse properly and an opening remains.
➤ The cause or causes for this failure to close are as yet not understood although much research has been and is being undertaken.
➤ In some cases there is a hereditary factor but cleft lip and/or palate can suddenly appear in a family with no known history of the defect. When this happens it may not appear again for several generations.
➤ Teeth. The greatest of care should be taken of all children's teeth, but this is especially important in the case of a child with a cleft lip and/or palate. The first teeth and later the permanent teeth are very important for the success of future dental work - neglected teeth make the task of the Orthodontist more difficult.
➤ Hearing. The child with a cleft palate may experience some hearing impairment and particular attention needs to be paid in the first 2-3 years of life. Treatment if required may involve the use of grommets. Reduced or impaired hearing can hinder the early development of good speech.
➤ Speech and Language. Speech difficulties are associated with cleft palate, and close attention needs to be paid to a child's speech development. Most problems can, however, be resolved with speech and language therapy.
➤ While supplementary advice and information is useful, the experts forming part of the multi-disciplinary cleft team responsible for your child's care are the people best placed to inform and advise on your child's future treatment.

Titles in the Series:
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7. Dental Health and Treatment
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10. Handout for Teachers and Carers

Contact Details:
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Acknowledgement:
The Association would like to thank the members of the cleft treatment teams and other health professionals for their valuable contributions.
See www.cleft.ie for the full acknowledgement and list of contributors.

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The Cleft multi-disciplinary team includes
➤ Cleft co-ordinator
➤ Plastic surgeon
➤ Speech Language therapist
➤ ENT (Ear Nose Throat) surgeon
➤ Orthodontist
➤ Maxillofacial surgeon (specialises in upper jaw & face)

And may also include the services of
➤ Paediatric dentist
➤ Social worker
➤ Geneticist
➤ Psychologist
➤ Dental Hygienist
➤ Prosthodontist (aesthetic dentistry)

The cleft co-ordinator is the first member of the cleft team that a parent is likely to meet. The cleft co-ordinator manages the delivery of the treatment plan, bringing together all of the above specialists, acting as a contact point for patients & parents and managing clinical records.

Details of treatment centres and cleft co-ordinator contact details are available on www.cleft.ie.
What is Cleft Lip and Palate?

A cleft lip (CL) is a separation in the upper lip. A cleft palate (CP) is an opening in the roof of the mouth. Clefts result from incomplete development of the lip and /or palate in the early weeks of pregnancy. During this time the face is being formed - the top and the two sides develop at the same time and grow towards each other, finally fusing in the middle. The lip and primary palate develop at 4 to 6 weeks, while the secondary palate develops at approximately nine weeks.

In the instance of a cleft forming, the final closing does not fuse properly and an opening remains. The cause or causes for this failure to close are as yet not understood, although research has been and continues to be undertaken. Genetics and environmental factors are both considered instrumental in causing clefts, but nothing is definite at this time.

Types of Clefts

A cleft lip or cleft palate can be either unilateral (one-side only) (Fig.2) or bilateral (both sides) (Fig.3). A cleft can be either complete or incomplete. A complete cleft palate involves both the primary and secondary palate, while an incomplete cleft involves the secondary palate only. Fig 2 and Fig 3 show complete clefts of the lip, gum, hard and soft palate.

A child may be born with either a cleft lip or cleft palate in both.

Combined cleft lip and palate (CLP) represents approximately 50% of the incidence of cleft lip and palate, cleft palate alone 30%, and cleft lip alone 20%.

Submucous Cleft

A submucous cleft of the soft palate is where the surface layers of the soft palate (mucous membrane) are complete, the underlying muscle is incomplete. A submucous cleft of the hard palate is where the bony element is incomplete.

In its most minor form only the uvula is cleft, but even this leads to an abnormality in the muscles in the palate and, if the speech is affected, a repair will be required.

Normal speech production is the primary goal of any surgical repair of a submucous cleft.

What can be done?

Cleft lip and cleft palate are correctable birth defects. Treatment of cleft begins within months of birth with corrective surgery, and can continue in one form or another until the person reaches their late teens / early twenties when the face is fully grown.

Every cleft is unique. A treatment plan is devised for each child by the multi-disciplinary cleft team. Parents and the child (as they get older) have full input into the treatment plan. An outline of items that might be included in the treatment plan follow. Remember though, each child and each plan is unique.

Initial surgery begins for lip repair at about 3 or 4 months and surgery for palate repair starts between 6 and 12 months.

Depending on the type of cleft, orthodontic treatment may be required. It begins with maxillary expansion (using braces) at around 9 to 10 years and may be followed by bone grafting when the teeth are in the best position. Bone grafting is a procedure where the gap in the gum is filled with bone matter taken from the child’s hip.

In later teenage years final surgeries may include rhinoplasty (nose shaping), final lip revision and orthognathic surgery (jaw re-alignment). These surgeries take place in full consultation with the maturing child.

Babies with unrepaired clefts may have feeding problems. There are special bottles available and help is on hand from maternity staff, the cleft co-ordinator and speech language therapists.

Speech difficulties can arise because of a cleft palate and may necessitate the need for speech and language therapy. The cleft team assess the needs of the child and local practitioners’ provide the therapy.

Hearing of a child with cleft palate needs to be monitored. Treatment if required may involve the use of grommets.