

## Dental care of a child with cleft Lip and Palate

### *How does cleft lip/palate affect the teeth?*

A cleft of the lip, gum (alveolus), and/or palate in the front of the mouth can produce a variety of dental problems. These may involve the number, size, shape, and position of both the baby teeth and the permanent teeth. The teeth most commonly affected by the clefting process are those in the area of the cleft, primarily the lateral incisors. Clefts occur between the cuspid (eye tooth) and the lateral incisor. In some cases the lateral incisor may be entirely absent. In other cases there may be a "twinning" (twin = two) of the lateral incisor so that one is present on each side of the cleft. In some cases the incisor, or other teeth, present may be poorly formed with an abnormally shaped crown and/or root. Teeth in the area of the cleft may also be displaced, resulting in their eruption into abnormal positions. Occasionally the central incisors on the cleft side may present with some of the same problems as the lateral incisor.

### *What does this mean for future dental care?*

A child with a cleft lip/palate requires the same regular preventive and restorative care as the child without a cleft. However, since children with clefts may have special problems related to missing, malformed, or malpositioned teeth, they require early evaluation by a dentist who is familiar with the needs of the child with a cleft.

### *Early Dental Care*

With proper care, children born with a cleft lip and/or palate can have healthy teeth. This requires proper cleaning, good nutrition, and fluoride treatment. Appropriate cleaning with a small, soft-bristled toothbrush should begin as soon as teeth erupt. Oral hygiene instructions and preventative counselling can be provided by a paediatric dentist or a general dentist. Many dentists recommend that the first dental visit be scheduled at about one year of age or even earlier if there are special dental problems. The early evaluation is usually provided through the Cleft Palate Team. Routine dental care with a local dentist begins at about three years of age. The treatment recommended depends upon many factors. Some children require only preventative care while others will need fillings or removal of a tooth. Of particular importance is the substance taken in the feeding bottle. Any liquid contains a sugar will cause damage to the teeth especially when taken at bedtime. It is recommended that bottle feeding stops at 14-16 month old baby.

### *Orthodontic Care*

The first orthodontic evaluation may be scheduled at the age 6-8 years old. The purpose of this visit is to assess facial growth, particularly the growth of the jaws. And make plans for the child's short and long-term dental needs. For example, if a child's upper teeth do not fit together (occlude) properly with the lower teeth, the orthodontist may suggest an early period of treatment to correct the relationship of the upper jaw to the lower jaw. At age 10-12 years old just before the eruption of the cuspid (eye tooth) the second phase of orthodontics will start by preparing the dental arches for bone grafting to close the cleft using expansion appliance. The final orthodontic stage will be done 3-6 months after performing the bone graft to complete alignment of the teeth.

### *Coordinated Dental-Surgical Care*

Coordination of treatment between the surgeon and dental specialist is important since several procedures may be completed during the same anaesthesia. Restorations or dental extractions can be scheduled at the same time as other surgery.

Coordination between the surgeon and the orthodontist becomes most important in the

management of the bony defect in the upper jaw. Reconstruction of the cleft defect can be accomplished with a bone graft performed by the surgeon. The orthodontist may place an appliance on the teeth of the upper jaw to prepare for the bone graft. A retainer is usually placed after the bone graft until full braces are applied.

When the child approaches adolescence the orthodontist and the surgeon again coordinate their efforts if the teeth do not meet properly because the jaws are in abnormal positions. If the tooth relations cannot be made normal by orthodontics alone, a combined approach of both orthodontics and surgical repositioning of the jaws is necessary. Such surgery is usually performed after the pubertal growth spurt is completed.

### ***Prosthodontic Care***

The prosthodontist is a dental specialist who makes artificial teeth and dental appliances to improve the appearance of individuals with cleft and to meet their functional requirements for eating and speaking. The prosthodontist may make a dental bridge to replace missing teeth. Oral appliances called "speech bulbs" or "palatal lifts" may help close the nose from the mouth so that speech will sound more normal. The prosthodontist must also coordinate treatment with the surgeon and/or the orthodontist to assure the best possible result. When a speech bulb or palatal lift is developed, the prosthodontist usually coordinates treatment with the speech pathologist. For the child or adult who wears one of these appliances, the care of the teeth holding the appliance is of particular importance.

### ***How can I get the best care for my child?***

Children with cleft lip and/or palate require the coordinated services of a number of specialists. For this reason many parents seek care for their child at a cleft palate or craniofacial treatment center. At such a center evaluation, treatment planning, and care are provided by an experienced, multidisciplinary team composed of representatives from a variety of dental, medical, and other health care specialties. Even if you do not have such a center locally, the care your child will receive in such a center may be well worth the inconvenience of traveling to another city.

## **Glossary of Terms**

**Anesthesia** - drugs provided during a surgical or dental operation that put the child to sleep.

**Bony Defect** - area of missing bone, usually affecting the roof of the mouth in children with cleft palate.

**Dental Extraction** - dental procedures performed to remove damaged, malformed, or malpositioned teeth.

**Dental Restoration** - dental procedures performed to repair or correct damaged, malformed, or missing teeth.

**Multidisciplinary Team** - a group of professionals who work together to help plan and carry out treatment for patients with cleft lip, cleft palate, and related disorders. The group usually includes surgeons, dental specialists, speech pathologist, and others who meet regularly to evaluate and discuss the patients under their care.

**Oral Hygiene** - care of the teeth and gums which is performed at home on a daily basis. This is performed first by the child's parent or guardian while the child is small and eventually by the child under continued supervision of the parent or guardian.

**Orthodontic Care** - dental visits designed to move the teeth into better alignment with one another to improve chewing, oral hygiene, and appearance.

**Preventative Dental care** - regular dental visits during which teeth are check for cavities and cleaned.

**Pubertal Growth Spurt** - a period of rapid growth that normally occurs some time between ages 10 and 16 years of age. The actual timing and length of this period of growth varies.

**Restorative Dental Care** - dental visits designed to correct dental problems.

**Compiled by Dr E Ghabrial, Prof. J Terblanche & Dr A vd Merwe UP Craniofacial deformities& facial cleft team November 2000**