[Author]Plastic surgery and Husuke outpatient clinic

STARTING LIFE

WITH A CLEFT LIP AND PALATE

Introduction

Congratulations on your new family member!

The HUS Cleft Palate and Craniofacial Center (Husuke) is a national center of expertise that focuses on treating cases of cleft lip and palate, defective fusions of the cranial sutures (craniosynostoses), and associated syndromes in patients from all over Finland.

The internationally acclaimed Husuke began operating already in 1948 at the Red Cross' Plastic Surgery Hospital. Today, it is part of the Plastic Surgery Outpatient Clinic and Cleft Palate and Craniofacial Center in the Musculoskeletal and Plastic Surgery division of HUS. Children's surgeries are performed at New Children's Hospital.

This Starting life with a cleft lip and palate guide contains information about your child's cleft lip and palate and its treatment. The guide also contains contact information for the Cleft Palate and Craniofacial Center (Husuke).

The purpose of this guide is to provide information on the child's cleft and support the family in a new life situation. The guide is a good tool for families at the early stages of a child's life and offers practical tips for a smooth everyday life.

We hope this guide provides the opportunity to read important early-stage information about clefts at your own pace and to enjoy your baby.

Husuke

Contents

The impact of cleft lip and palate on the family and the child's development

Learning that a newborn baby has a cleft lip and/or cleft palate can be a shock to the family. Adapting to the child's illness and the life change it involves takes time. In the early stage, parents may experience a variety of emotions, such as confusion, grief, anger or concern. Other people's attitudes towards the baby's appearance may be concerning and increase a parent's desire to protect their child. Parents may also feel unnecessary guilt about a child's illness. It is important to give yourself time to adapt to the new reality and its requirements

The most important thing for the baby is to establish and develop a good interactive relationship with their parent. The foundation for a safe attachment relationship is the parent's curiosity about the baby and observation of their needs. Responding to the baby's messages and sounds by providing care, chatting, playing, singing and reciting rhymes builds a common language between the parent and baby.

Development of a child with cleft lip and palate

Children who have a cleft mainly learn and develop in the same way as other children of the same age. However, they have a somewhat higher possibility of experiencing learning difficulties, especially in the linguistic area.
Differences observed in early childhood development often level out as the child grows.

In most cases, a cleft does not significantly interfere with psychosocial development. No differences in psychological development have been observed between children of daycare age who have a cleft lip and palate and healthy children of the same age. In primary school, caution related to social relationships, nervousness and dissatisfaction with appearance are somewhat more common than in other children of the same age. Supporting the child's speech development and interaction skills is important in terms of preventing challenges. Encouragement from parents and setting an example help a child develop positive self-esteem, play skills and social courage. The cleft and its treatment gradually become part of the child's wider self-image.

Supporting the child during examinations and procedures

A child with a cleft lip and/or palate needs treatment provided by many different professionals during their growth. It's important to maintain the child's sense of security during hospital visits and procedures. You can help your child in many ways during hospital visits.

It's a good idea to talk to a child in advance about the reason for going to the hospital or outpatient clinic in an age-appropriate way. A small child observes their parent to assess the safety of events from their own perspective. A parent's calm attitude and sense of security are reassuring to the child in treatment situations. A child can react to treatment procedures by, for example, crying, but the support, comfort and proximity of a parent help them manage even the difficult situations. The procedures may also seem difficult for a parent, so focusing on exhaling slowly or calming thoughts can help in a stressful situation.

A visit with an older child requires more detailed preparation. The child should know why the procedures are being done and how the visit will progress from one step to another. It's important to answer a child's questions honestly. Play and drawing are good ways to prepare for procedures. During the procedure, the parent's proximity, verbalisation of emotions, calm speech, a soft toy to provide a sense of safety, and focusing attention on something pleasant may make the situation easier. After the visit, you can reward your child with a treat or by spending some pleasant time together. It's important to talk about difficult situations and the feelings experienced during them with the child afterwards so that they aren't afraid of future treatments. You can ask a professional for support if necessary.

Parents and children can receive psychological support at different stages of a child's development. A psychologist from the Pediatric General Hospital Psychiatric working group consults and cooperates with Husuke. If necessary, we can also help organize support with your local service network.

Kati Havo, Specialist Psychologist in Development and Education, Psychotherapist
New Children's Hospital

Clefts and heredity

Cleft lips and palates occur at the beginning of fetal development, during the first three months of pregnancy. The onset mechanism is multifactorial in most cases, meaning that it is simultaneously influenced by several predisposing genetic factors and several external factors that usually remain a mystery.

The factors affecting the development of clefts are still largely unknown, but we do know that genetic factors play an important role in this process. Thus, an important risk factor for clefts is their occurrence in the immediate family. The role and impact of environmental factors and so-called external factors in the development of clefts are poorly known. However, estimates suggest that the pregnant mother's lifestyle or nutrition has very little impact on preventing clefts. A folic acid deficiency in nutrition has been suspected of increasing the risk for clefts, but studies have produced contradictory results and no convincing evidence has been obtained.

Flu or an infectious disease in the mother has not been found to increase the risk of cleft either.

Most medications do not contribute to the development of a cleft. Anti-epileptic medications include some products that can increase the risk of clefts. However, safe epilepsy medications are available for pregnant women.

Multifactorial inheritance

The majority of clefts are inherited in a multifactorial manner, which means that both genetic factors and so-called external factors play a role in the development of clefts. The risk of cleft recurrence is determined according to the probability of recurrence based on experience from large sets of patient data.

If a child with a cleft palate has been born into the family, the risk of the next children having a cleft is 2%. In the case of cleft lip and palate, the risk is 4%. If a child has a cleft, their risk of having children with clefts is 3–4% in the future.

The same type of cleft is usually inherited within a family. However, the degree of severity can vary. Siblings who do not have a cleft have no increased risk for having children with a cleft.

Syndromes associated with clefts

Clefts resulting from multifactorial inheritance are not usually associated with other congenital structural anomalies or they occur as isolated additional symptoms. On the other hand, syndromes associated with clefts usually involve several other structural anomalies and findings in addition to the cleft. In this case, a geneticist should evaluate the situation in order to determine the precise diagnosis and assess the risk of recurrence.

Syndromes associated with clefts may be caused by an error in a single genetic factor, and heredity patterns and the risks of recurrence can vary depending on the precise syndrome diagnosis.

Although hundreds of syndromes associated with clefts have been identified, most of them are very rare. In some syndromes, the clinical picture may be very serious. On the other hand, in addition to a cleft, Van der Woude syndrome only involves missing teeth and small pits in the lower lip, which are additional salivary glands.
Van der Woude syndrome accounts for 2% of all clefts. According to some estimates, syndromes associated with a cleft account for 20-30% of all clefts.

Genetic counselling in Finland

Each Finnish university hospital in Helsinki, Turku, Tampere, Oulu, and Kuopio operates a clinical genetics unit, where a geneticist can assess an individual family's situation and risk of recurrence.

In situations where a possible syndrome associated with a cleft or hereditary cleft is suspected, the attending physicians at Husuke may refer the patient to their own clinical genetics unit.

Sirpa Ala-Mello
Docent, Specialist in Clinical Genetics

The effect of cleft lip and palate on feeding a child

After the birth of the child, eating is one of the fundamental functions in terms of nutrient intake and development of the attachment between a baby and parents. The aim of feeding is to provide sufficient nutrition in the most natural way possible in a safe and secure environment. A baby with a cleft has the same need for sucking and similar reflexes as other newborns. Every parent has the right to receive the support and guidance they need, regardless of whether the mother breastfeeds or the baby receives expressed breast milk or formula in another way.

The functional adverse effects on the muscles of the mouth and pharynx vary depending on the structure of the cleft. As a result, the solutions to eating problems are individual.

Feeding

A newborn child tries to obtain their nutrition using the natural eating reflex. The oral cavity of a child with a cleft palate does not normally create a vacuum for suction in the same way as a child whose intact soft palate closes the nasopharynx. The open connection between the nasal and oral cavities means that the child's sucking is often inefficient. If breastfeeding is not possible, it’s still a good idea to keep the baby in contact with the skin. This allows the baby to search for the nipple or touch the breast. Although a cleft palate may prevent sucking / breastfeeding, there’s no need to stop using breast milk. The mother can express or pump breast milk and offer it using, for example, a baby bottle. If the mother wants to pump or express milk, she should start this as early as possible after the baby is born in order to increase the amount of milk. Pumping milk can take a lot of time, and it's important to take the parents’ resources into account when considering the feeding solution. A cleft does not affect swallowing, so parents should remember that not all eating problems are caused by the cleft.

Each child has their own rhythm for eating and sleeping. They eat every 2–3 hours and only small amounts at a time during the first days. The child cannot close the open connection between the nasal and oral cavities, so they swallow more air into their stomach. As a result, feeding should last for a maximum of 20–30 minutes, as slow eating is tiring for the child, while eating too fast makes it more difficult to swallow, increases flatulence and spitting up. The child may also spit up through their nose, which is normal for a child with a cleft. It’s important to burp the child both during feeding and when they finish eating. If the child spits up a lot, you can also add a milk thickener to the milk.

Using a thickener may reduce the amount of spitting up. You can ask the child health clinic for more instructions on how to use a milk thickener.

Within a few weeks, the intervals between feeding sessions usually increase to 3–4 hours and the amounts of food eaten increases. The child gradually finds a daily rhythm, meaning that they eat more often during the day and the intervals between eating are longer at night.

The learning phase requires patience on the part of the person who is feeding the child. The correct feeding position has the child in a relatively upright position in the feeder's arms with the back and neck well supported against the feeder's arm. A cushion can be used to support the feeder's arm while sitting.

If breastfeeding is not possible, a suitable teat and bottle can be found by testing different options. The size of the hole in the teat is the most important factor in terms of success. The milk should come out in large droplets quite quickly, but not as a continuous flow. Feeding is often successful using an ordinary anatomical teat with an enlarged hole or an X-shaped slit cut into the tip of the teat with scissors. Direct the teat to the more intact area of the mouth, so the child can use their gums and tongue to regulate milk intake. The feeder can assist by squeezing the bottle or pressing a finger on the base of the teat in synchronisation with the child's suction rhythm. It's important to stop feeding if a child has milk in their mouth and starts coughing or gagging. In this case, lift the child up in your arms so that they are facing away from you and tilted forward. Gently tap the child's upper back. Let the child clear their breathing and only continue feeding when the child's condition has stabilized. If feeding difficulties continue, it may be worth trying speciality teats Pigeon bottle or a Haberman bottle. Once you find the right teat model, it's a good idea to continue using the same one so that the child develops their eating skills using a familiar teat.

Start offering puréed foods in an age-appropriate manner according to the instructions provided by the child health clinic. Purées should be served with milk or water, and diluted if necessary. When using a spoon, direct the puréed food to the intact area of the mouth rather than into the cleft. Some puréed foods may enter the nose and irritate the mucous membranes. An upright position is still a good choice for eating. Many children who have a cleft palate do best with smooth purée-like foods (for example, ready-to-eat puréed foods intended for children aged 5 months). This learning phase may also take longer for some babies, and this requires patience on the part of parents.

The baby can use a pacifier, but it's important to remember that the child must be weaned off the pacifier before their surgery. A pacifier and eating stimulate the motor skills of both the lips, the tongue and mouth.

Tips for starting puréed food

The transition to coarser food is often delayed due to challenges in the early stages of eating. Liquid and smooth purées may be used for longer than normal, and the child becomes accustomed to them. Moving to coarser foods can cause, for example, gagging.

If solid food cannot be offered to a child on a typical schedule and you want the child to become familiar with coarser food, it’s a good idea to maintain oral sensory and motor skills in other ways. All types of positive facial and oral contact and massage increase children's tolerance and make it easier to accept different textures later. The inside of the mouth can be stimulated with a clean finger, glove finger, toothbrush or other stimulation brushes. You can brush and rub the cheeks, palate, gums, surface and sides of the tongue for brief period of about 30 seconds if the child can tolerate the contact. If the contact feels unpleasant, start with very short periods or familiarise the child with contact farther away from the mouth, for example, at the top of the head or on the hands and body. Oral motor skills can be activated by offering the child different types of toys to chew on or, for example, letting the child chew on pieces of food placed in a chewing bag if the handling of coarser food is still poor or it’s important to avoid swallowing pieces of food.

Annika Rastio
Speech Therapist, New Children's Hospital

Surgical treatment of cleft lip and palate and monitoring of the child

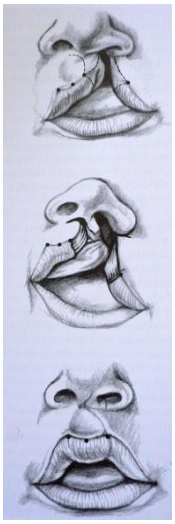
The aim of surgical treatment is to correct an anomaly in closure of the facial structures that occurred during fetal development. A complete cleft lip, alveolus and palate always requires several operations. The treatment is planned individually and in such a way that surgical procedures do not interfere with normal growth of, for example, the nose or upper jaw. A cleft lip is often closed at the age of approximately 4 months and a cleft in the soft palate at the age of approximately 9–10 months. Bone graft surgery to correct the bone structure in the alveolar ridge is performed at the age of approximately 9–12 years.

The image above is an example of a treatment pathway. An individual treatment pathway is planned for each child.

Huuli-suulakihalkiolapsen hoitopolku	Treatment pathway for cleft lip and palate
Ensikäynti	First visit
Määräaikaistarkastukset kasvun aikana	Regular check-ups during growth
plastiikkakirurgi, korvalääkäri, oikojahammaslääkäri, puheterapeutti	Plastic surgeon, otologist, ophthalmologist, orthodontist, speech therapist
Huulen sulkuleikkaus	Lip closure surgery
Suulaen sulkuleikkaus	Palate closure surgery
Luunsiirtoleikkaus	Bone graft surgery

Tarvittaessa voidaan tehdä: • puheenparannusleikkaus • fistelin sulkuleikkaus • nenän ja/tai huulen korjausleikkaus • purennan korjausleikkaus	If necessary, the following can be performed: • Speech improvement surgery • Fistula closure surgery • Corrective surgery on the nose and/or lip • Surgery to correct bite anomalies

Lip reconstruction



A cleft lip is usually closed at the age of 3—4 months. The hard palate may also be closed during the same operation. In the case of a complete cleft, the alveolar ridges may initially be positioned quite far apart. After lip reconstruction, the alveolar ridges automatically come into better contact. However, a small open connection to the nose may remain between them, and this is closed during bone transplant surgery when the child is about 9–12 years old.

During lip surgery, the surgeon finds the normal soft tissue structures of the lip and nose and uses small sutures to attach them into the correct position. The sutures will dissolve on their own. After surgery, the scar is often a bit hard at first, but it usually becomes softer and nearly unnoticeable over time.

Closing the palate

The purpose of the palate is to separate the mouth, which we use for eating and talking, from the nasal cavity that we use for breathing. A child with a cleft palate is usually unable to create a vacuum in the mouth in a way that makes breastfeeding possible. In this case, the child has to be fed with a bottle. An uncorrected cleft prevents normal speech formation because air can escape through the cleft into the nose, making it impossible to form pressure consonants (P, T, K).

The purpose of palate closure surgery is to close the cleft and simultaneously shape the soft palate so that is as long and mobile as possible. In terms of speech, the most important part of the surgery involves repairing the muscle ring at the back of the palate. A functional muscle ring at the back of the soft palate allows a child to close the air connection to the nose if necessary and produce pressure consonants in their speech.

If the cleft is wide, relaxing incisions are used inside the dental arch in order to close the mucous membrane along the midline (Langenbeck or Bardach incisions).

The palate is closed with dissolving sutures, which will disappear by themselves within a few weeks. A yellow coating may accumulate around the sutures in the early stage. Postoperative wound infections are rare after palate surgery. The child may not use a pacifier or bottle for one month after the surgery to provide sufficient time for full healing. If the child has a clear respiratory tract infection at the time of the procedure, the palate closure operation will be postponed for a few weeks.

Monitoring and later operations

After the operations during infancy, the first follow-up examination is at the age of 3 years. Later follow-up examinations are arranged as necessary. In the early stages of monitoring, the focus is on assessing speech. The child's speech may be unclear at the beginning, certain sounds may be missing, and it may be nasal. However, speech usually normalises in connection with growth and development and possible speech therapy. A small number of children have clear speech anomalies that require another palate operation. These operations are usually quite effective and the child rarely has significant speech anomalies.

In school age, we monitor the growth and bite of a child’s upper jaw. The cleft in the alveolar ridge is usually closed with bone graft surgery at the age of around 9–12 years. Today, we use a bone graft taken through a very small incision made in the iliac ridge (hip). Children usually recover from this procedure very quickly. Bone graft surgery is preceded by orthodontic treatment, which also continues after the bone graft surgery.

Further treatment related to bite anomalies is always determined according to individual needs. Upper jaw growth anomalies and bite problems mean that some children need surgical treatment during their teens. For example, the cleft can also involve deviation of the bone and cartilage in the nose. The position of the nose is always corrected during infant surgery, but in this case the nose structures are left untouched for the time being. If deviation in the nose structures or the shape of the nose bothers the young person later, a separate operation on the nose can be performed after they have stopped growing.

During the regular follow-up appointments at Husuke, the child and family will see members of our multi-disciplinary cleft team, which includes an orthodontist, speech therapist, phoniatrician, otologist, cleft nurse and surgeon.

Anne Saarikko
Docent, Specialist in Plastic Surgery

Preparing for surgery at home

Before the first operation, the child must be weaned off their pacifier because they will not be allowed to use a pacifier for one month after the operation.

Before the second operation, the child must be weaned off both the pacifier and feeding bottle. This is necessary because after surgery, the wound in the palate is like two single pieces of tissue paper that are stitched together. In order to give the surgical wound time to heal, it may not be subjected to any mechanical contact or vacuum pressure during the first few weeks after the operation. In addition, functioning of the child's palate changes during surgery and this may cause a strange feeling and tenderness in the mouth. It is challenging for a child to only start learning a new way of consuming milk at this point.

Preparing in advance helps the child feel more comfortable after the operation, because a sudden change in eating habits is an extra burden for your child.

Tips for selecting a sipper cup:

- A short spout.
- No spill-proof valve–prevents formation of a vacuum.
- Consider the child's eating rhythm and select the size of the sipper cup hole: the larger the hole, the faster the flow.
- The spout material may be hard or soft. If the spout is soft, make sure that the opening in the spout is large enough to prevent the child from learning to suck from the spout.
- An option is a sipper cup without any spout.

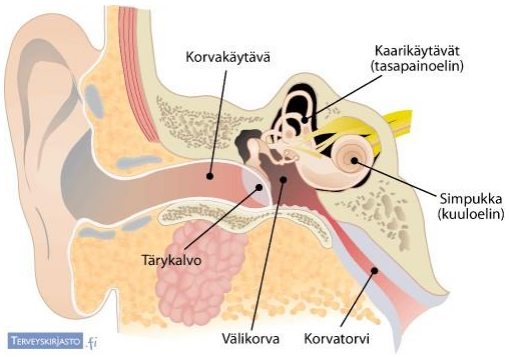
It’s a good idea to bring the child's own sipper cup and a bedtime toy to the hospital so that the child has something familiar to provide security in an otherwise unfamiliar environment.

If it is not possible to wean the child off their feeding bottle and pacifier, the operation will have to be postponed in order to ensure a good surgical outcome.

The effect of cleft palate on middle ear function

The middle ear is an air-filled cavity into which air flows from the nasopharynx via the Eustachian tube (image below). The muscles that open and close the Eustachian tube function poorly in almost all children born with a cleft palate, and in some of those with submucous cleft palate. As a result, the middle ear is not ventilated normally, and its mucous membranes begin to secrete mucus (so-called 'glue ear'). According to current knowledge, this effusion does not harm the ear in any way, but the patient's hearing may be impaired if there is a lot of mucus. Placing a small tube in the eardrum to allow air to enter the middle ear from the ear canal stops the mucus secretion and improves hearing. The tubes are usually inserted in conjunction with palate surgery. Inserting the tubes earlier involves a small risk that the ears will leak mucus until the palate is closed.

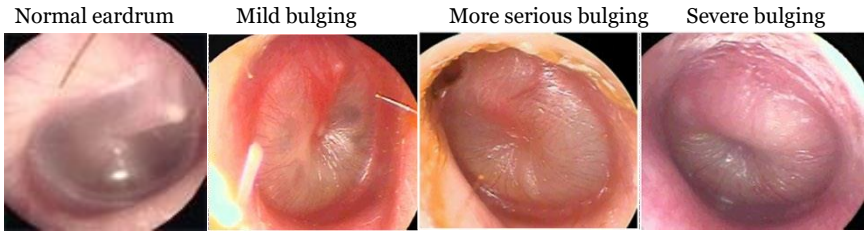
The tubes remain in the eardrum for between 6 months and 2 years and then generally fall out by themselves. Once that has happened, we monitor the situation to see whether mucus begins accumulating or negative pressure develops in the middle ear and requires treatment. New tubes will be inserted if necessary. In most children, middle ear ventilation begins functioning normally by school age.



Korvakäytävä	Ear canal
Kaarikäytävät (tasapainoelin)	Semicircular canals (balance organ)
Simpukka	Cochlea (hearing organ)
Tärykalvo	Eardrum
Välikorva	Middle ear
Korvatorvi	Eustachian tube

Glue ear or acute suppurative infection of the middle ear?

Children with a tendency to 'glue ear' are at risk of being prescribed unnecessary antibiotics for common viral infections that pass by themselves. 'Glue ear' can easily be misinterpreted as acute suppurative otitis media, or a middle ear infection with pus. It's a good idea to tell doctors who are examining the child that the child was born with a cleft palate and it is very likely that the middle ears contain mucus if the tubes are not ventilated. Both types of mucus interfere with movement of the eardrum. In cases of acute otitis media, the bacteria produce gas and cause bulging in the eardrum. This is not the case with glue ear. If the child has flu symptoms, mucus in the middle ear and also doughnut-like bulging in the eardrum (images below), the probability of acute otitis media is much higher than if there is no bulging in the eardrum. When examining a child with an upper respiratory tract infection, bulging is an important criterion when assessing whether there is also a middle ear infection that requires antibiotic treatment.



Images of "doughnut eardrum" (Haberman et al. NEJM 2011)

The effect of cleft lip and palate on speech

During the first months of life, the development of sounds made by babies is similar regardless of whether the baby has a cleft palate. At the age of approximately 6–8 months, babies usually start producing babbling sounds that contain consonants.

A cleft palate makes the babbling less varied, because an open palate usually prevents a child from creating the intraoral pressure needed to produce the pressure consonants K, P and T. As a result, only the M, N and/or V consonants are typically used. After palate correction operation, many babies also learn to produce pressure consonants. A cleft palate is normally closed at the age of 9–11 months.

Some children develop special features in their speech due to the cleft background. Typical features include nasal speech, buzzing or hissing of air flow through the nose during speech, and difficulty producing sharp pressure consonants. In addition, children with a cleft lip, alveolus and palate may have more anomalies in sounds produced using the alveolar ridge (R, S, L, D). Linguistic problems and learning difficulties are slightly more common among children with a cleft background.

Speech assessments at Husuke

A speech therapist works in collaboration with a plastic surgeon, an orthodontist, phoniatrician and medical staff. The speech therapist assesses the effect of the cleft on the child's speech development.

The child will see a speech therapist for the first time during the 3-year examination. The family can also contact the Husuke speech therapist by phone or arrange an appointment before the child turns three. After that, the speech therapist will see the child at regular examinations every 2–3 years. Speech assessments may also be performed between the regular examinations if closer monitoring is considered necessary.

The child will be referred to speech therapy if needed. This is usually organised by the child's home municipality, for example, at their own health center. Speech therapy is planned on an individual basis. The starting age, duration and frequency of the therapy are determined separately for each child. Approximately one in five children need surgery to correct speech at some point. In most children, any problems related to speech production have eased by school age.

Interaction with your baby

A child learns language by interacting with their parents and other people in their immediate surroundings. The baby needs closeness and enjoys facial contact with their parents.
Pay close attention to the initiatives made by your baby (sounds, babbling, crying, movements) and respond to them with speech, expressions and by mimicking the baby's sounds.

Tell the baby what you're doing: “Let's change your diaper now.” “Daddy’s going to pick you up.” “Let's go and eat.”

Play, sing, read and recite rhymes.

Spend unhurried time with your baby.

Suvi Alaluusua, Speech Therapist
Elina Hölttä, Speech Therapist

The effect of cleft lip and palate on teeth and bite

Baby teeth appear at the age of 6 months–3 years, but on average the development of permanent teeth is 6 months late. An exception is the tooth at the cleft site (tooth number two), which may appear very late in both the baby and permanent teeth. The size and shape of the cleft area and the teeth adjacent to it also vary. Extra teeth at the cleft site are not usually removed until this is necessary due to the arrival of permanent teeth.

Orthodontics

Nearly all children who have had a cleft lip and palate need orthodontic treatment. Orthodontic treatment is performed at Husuke or in the home municipality according to instructions from Husuke. The x-rays required for orthodontic treatment are also taken at Husuke. Copies of these will be sent to the home municipality.

In cases of cleft lip and palate, orthodontic therapy starts at the age of 8–9 because orthodontic treatment is associated with bone graft surgery. Cross-bite in the upper dental arch and any significant anomalies in the upper incisors are usually corrected prior to the bone graft operation. Bone graft surgery is performed during orthodontic treatment of the upper dental arch at the age of 9–10 years.

Orthodontic treatment usually continues when the second set of permanent teeth are coming in (at the age of 10–12). If permanent teeth are missing, the openings caused by them can be closed with orthodontic treatment or prosthetics. Cleft lip and palate can also be associated with a growth anomaly in the upper jaw, which is repaired surgically by moving the upper jaw forward. Orthodontic treatment is also required in connection with surgical correction.

The dentists and dental hygienists at Husuke are happy to answer any questions you might have related to dental care and orthodontic treatment.

Arja Heliövaara,
Docent, Senior Dentist

Cleaning and basic care of the teeth

Children who have a cleft need to take good care of their teeth and mouth from an early age. Tooth brushing should start as soon as the first baby teeth appear in the mouth, so that the child can learn good oral health practices right away. A parent should brush their child's teeth in the morning and evening using fluoride toothpaste. For children under 3 years of age, a thin layer of children's fluoride toothpaste (1000–1100 ppm) is sufficient during both brushing sessions. A good toothbrush for your baby is soft and has a small head. As your child grows, it's a good idea to familiarise them with using an electric toothbrush. Cleaning the cleft site may be more difficult because of misaligned teeth. An oral health professional will help with this if necessary, and provide instructions on selecting and using suitable devices.

Evidence shows that children who have a cleft have more cavities in their teeth. Missing teeth, extra teeth and problems with enamel development are also more common. In addition to thorough tooth brushing, cavities are prevented by means of a regular meal rhythm without snacking between meals, avoiding excessive sugar intake and choosing water as a drink to quench thirst. Another goal is to protect the child from caries bacteria transmitted through the saliva, which among other things, means avoiding eating with the same spoon.

Husuke is responsible for orthodontic treatment related to clefts, but basic dental care, such as dental examinations, preventive dental care and cavity filling, is provided by health centers in your home municipality. A pediatric dentist at New Children's Hospital will also assess the oral health situation and, if necessary, provide the local health center with treatment recommendations. It's important to ensure that the child attends regular examinations at their own health center. Due to the increased risk of cavities, we recommend more frequent examinations and preventive dental care appointments. Good oral health promotes cleft treatment and reduces the risks of complications.

The pediatric dental team,
New Children's Hospital

Medical photography

The photos required when diagnosing a disease–during diagnosis as well as when monitoring and documenting treatment, the surgical outcome and healing–are called clinical photos. These are added to the medical report as an appendix.

In plastic surgery, clinical photos supplement x-ray and laboratory examinations in accordance with good care practice. Staff at the HUS Clinical Photography Unit are responsible for photography that is directly related to patient care. The photos are patient data that is equivalent to x-ray images and are subject to the same confidentiality and communication regulations as other patient data.

A photo of the patient taken by a doctor or other medical staff member in a treatment situation is also patient data equivalent to x-ray images and is subject to the same confidentiality and communication regulations as other patient data.

As a family, you have the right to prohibit clinical photography of your child. Prohibiting clinical photography will not affect subsequent treatment in any way. Please inform the doctor treating your child about your decision to prohibit photography and a note of this will be added to their patient document.

Maisa portal

Maisa is a portal for social welfare and health care customers. It can be used either in a browser or as a mobile phone application that can be downloaded from an app store.

Maisa also allows you to act on behalf of another person if you have permission from that person. Logging in requires strong identification, i.e. online banking credentials or a mobile certificate.

You can find the Maisa portal at www.maisa.fi and from app stores.

Maisa includes the following services:

1. Appointment booking and cancellation.
2. A preliminary information form may be associated with your appointment. Please fill it in carefully. You can also add information about any allergies and medication. A professional will go through these with you at the appointment.
3. You can also cancel appointments in Maisa. However, we hope that you will cancel an appointment by 12 noon on the previous day at the latest by calling or sending a message via Maisa instead of using the cancellation function in Maisa. We will try to reschedule your appointment as soon as possible, but unfortunately the appointment may be delayed for quite a while in some cases.
4. Communicating with a professional.
   You can send a message to a unit where you have an appointment. The message function is intended for non-urgent matters. We will reply within three working days. The message function can be found in the 'Contact Us' menu in Maisa.
5. View test results.
6. Monitor your health information.

For more information, see the "Frequently Asked Questions" section at Maisa.fi

Contact information

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