

Pediatric dentistry

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Definition

Pediatric Dentistry is an age specific specialty that provides both primary and comprehensive and therapeutic oral health care for infants and children through adolescence including those with special health care needs.

The Importance of Baby Teeth

Many parents overlook the importance of their child's teeth, especially their primary teeth. Some parents do not realize teeth serve functions other than biting and chewing.

Deciduous teeth perform the following functions.

1- Help provide nutrition.

Without healthy, reasonably well-aligned teeth, the child may have difficulty chewing and may not be able to eat a well-balanced diet. If child's mouth is sore because of cavities, loose teeth, or sore gums, she/he may refuse to eat or may accept only those foods or liquids who can consume without more pain. But baby needs a variety of foods for a balanced diet, and chewing foods of different textures stimulates and exercises the gums and provides a cleansing action for the teeth.

The first stage of digestion of some foods takes place in the mouth, and chewing helps break up foods to more easily digested sizes. If the child swallows too rapidly and without chewing food properly this may prolong the digestion process.

2- Help make speech possible.

The baby's teeth are a vital aid to speech. Without healthy, reasonably well-aligned teeth, the child may have difficulty words and speaking clearly.

3- Aid in the normal development of the jaw bones and facial muscles like muscles in other parts of the body, the baby's face and jaw muscles need exercise to help them develop; without well-developed jaw muscles, the baby's jaw bones may not develop properly. Sucking provides exercise for baby's jaw, cheek, and tongue muscles. When the baby is old enough for solid foods, chewing also exercises these muscles. This exercise is necessary for these structures to develop enough for the child's teeth to come in properly.

4- Add to an attractive appearance.

5- Reserve space for the permanent teeth and help guide them into position.

EXAMINATION OF THE MOUTH AND OTHER RELEVANT STRUCTURES

Planning the approach to pediatric care

Diagnosis gathering complete and comprehensive

- 1- Medical record
- 2- Clinical finding
- 3- Radio graphical finding

The diagnostic method

History taking

- 1- medical
- 2- dental
- 3- familial

Child development

- 1- social
- 2- psychological

Mental retardation: Assistant can determine mental mental retard child by asking question about learning process and behavioral and communication problem.

Dental history: -

- 1- Previous care in dental office.
- 2- Oral hygiene.
- 3- Habits.
- 4- Previous and current fluoride therapy.

Clinical examination

Mal nutrition recognized by

- 1- Abnormal size
- 2- Child illness

Systemically and orally recognized by observing the weak, unsteady walk lethargy and malaise

Examination of the patient should be carried out once the patient sit on the dental chair. **Look to the**

Head, Hair, Face, Neck, Hands.

- 1- Palpation of head and neck lymph nodes
- 2- Head lice
- 3- Ring worm, impetigo. Proper referral is indicated because these are contagious. The treatment postponed until the condition control.

Abnormalities in

Size, shape, symmetry, function of head and neck indicate various syndromes associated with oral abnormalities

Evaluation

- 1- T.M.G
- 2- Submandibular area, tenderness, enlargement of lymph nodes

The patient hands reveal information on elevated temperature

Cold, clammy hands or bitten finger nails may be the first indication of abnormal anxiety in the child

Clean digit suggests sucking habit

Clubbing of the fingers or bluish color in nail beds suggest congenital heart disease

INRTA ORAL EXAMINATION

Evaluate the condition of the oral soft tissues and the status of developing occlusion.

Un usual breath odors or abnormal quantity or consistency of saliva should be noted.

The buccal tissues, lips, floor of the mouth, palate, and gingiva should be carefully inspected and palpated.

The use of the periodontal screening and recording program(PSR) is often a useful adjunct in children

Tongue and oropharynx should inspected

Enlarged tonsils with purulent exudates may be the initial sign of streptococcal infection leading to rheumatic fever.

When streptococcal throat infection suspected immediate referral of the child to the physician is indicated. Obtaining throat culture while the child is on the dental chair is helpful for the physician.

Inspect occlusion and note any dental or skeletal irregularities.

Dental or skeletal abnormalities may undergo considerable changing during childhood and early adolescence. This dynamic developmental process occur in all three planes of space and with periodic evaluation the dentist can intercept and favorably influence un desirable changes

Monitoring of patient facial profile and symmetry, molar, canine, and anterior segment relationship, dental, midlines, arch length to tooth mass comparison should be routinely included, diagnostic casts, cephalometric analysis indicated early in mixed dentition and sometime in the primary dentition.

The teeth should be inspected carefully for: -

- ❖ Evidence of carious lesions
- ❖ Hereditary or acquired anomalies
- ❖ Supernumerary or missing teeth

Identification of carious lesion is important in patients of all ages but is especially critical in young patients because the lesion may progress rapidly in early childhood caries if not controlled. Elimination of caries, restoring the teeth prevent pain and the spread of infection and also contribute to the stability of the developing occlusion

Examinations of teeth start in upper right quadrant work around the max. arch move down to the lower left and end in the lower right.

Morphological defects and incomplete coalescence of enamel at the base pits and fissure in molar teeth can be detect by visual examination and explorer

Examination should do after the teeth have been cleaned and dry.

Radiological examination

Radiograph should be taken before comprehensive oral health care plan development. subsequent radiographs are required periodically to detect incipient caries or developing anomalies. Occlusal, periapical, bitewing radiograph indicated in very young and even infant because of trauma, toothache, suspected development disturbance or proximal caries .

Carious lesion always appear small on radiograph than it's actually is.

Advantages of treatment plan

Provide step by step guideline.

Estimate the

- 1- Time required
- 2- Numbers of appointments required.

Treatment priorities

- 1- Emergency treatment
- 2- A plaque control
- 3- Restorative therapy.
- 4- Orthodontic and prosthodontic care.
- 5- Recall appointment for evaluation and necessary follow up.

Step one

Emergency treatment.

To relief pain infection. Conservative treatment approach at an emergency visit is advantageous because the child is often under stress and low tolerance level.

If possible, delay extraction or extensive pulpal therapy, provided that the pain can be relieved by some other means.

Step two

A plaque control program: including plaque identification and removal, diet counseling, topical fluoride application and child-parent education on home care oral hygiene practice.

Step three

Restorative therapy:

A procedure that is short and simple should be selected first during this initial appointment to allow the development of patient trust and confidence.

Step four

Orthodontic and prosthodontic care following the completion of the restorative phase of treatment, orthodontic and prosthodontic care may be rendered if needed.

Although minor oral surgical procedures are accomplished during the restorative phase of treatment using the quadrant approach, complex surgical procedure should be delayed until this phase.

Step five

Recall appointment for evaluation and necessary follow up

NO treatment plan is completed until provision made to provide a recall appointment for evaluation and necessary follow up care

Presentation of treatment plan to parents: -

Informs the parents of:

- 1- The dental need of their child.
- 2- The restorative procedures required.
- 3- The amount of time required to perform the projected procedures.
- 4- The total cost of the services.
- 5- Preventive measures necessary to maintain the completed treatment.

Each problem should discuss in the following manner:

- 1- Point out the problem using cast, radiograph or the patient mouth.
- 2- State the probable cause of the problem such as plaque or insufficient arch length.
- 3- State the out come of the problem as its effect on function, health or appearance.
- 4- Show how the problem will be resolved.
- 5- Stress the benefit the patient receive from the treatment.