Fracture anterior teeth is a common accident in a child which has great psychological effect on both parents and children and especially if the fracture is in the permanent dentition and this situation present a real problem to the dental practitioner who deal with children. The prevalence of fracture anterior teeth varies greatly in different studies according to age and sex. The fracture varies from a simple condition to severe cases, which demand specific dental treatment. If the condition left untreated, it will result in a malformation, degeneration, necrosis, abscess formation and finally tooth loss from the arch. Trauma to a tooth followed by Pulpal hyperemia which cannot be determined by diagnostic methods, congestion and alteration in blood flow in the pulp may be sufficient to initiate irreversible degenerative changes, which over a period of time can cause pulpal necrosis. In addition, the apical vessels may have been severed or damaged enough to interfere with the normal reparative process. Treatment of pulp exposure or tooth displacement are particularly challenging problem, interesting but not difficult, since the prognosis of the involved tooth is uncertain for an indefinite period of time. Dental injury to the teeth in the child is infrequent and mostly happen in child when start to move. The prevalence of dental injury varies according to different Nationalities. It is vary from very simple fracture of the crown to severe fracture of the crown either it need very simple treatment or very specific Rx or left untreated. Although the dentist may prefer to delay the restoration because of a questionable prognosis for the pulp, often a malocclusion can develop within a matter of days as a result of a break in the normal proximal contact with adjacent teeth. Adjacent teeth may tip into the area created by the loss of tooth structure. This loss of space will create a problem when the final restoration is contemplated. There must often be a compromise of an ideal aesthetic appearance, at least in the initial restoration, because the prognosis is questionable or because the tooth is young and has a large pulp or is still in the stage of active eruption. The likelihood of success often depends on the rapidity with which the tooth is treated after the injury, regardless of whether the procedure involves protecting a large area of exposed dentin or treating a vital pulp exposure.
HISTORY OF THE INJURY

The time of the injury should first be established. Unfortunately, many patients do not seek professional advice and treatment immediately after an injury. Occasionally the accident is so severe that dental treatment cannot be started immediately because other injuries have higher priority. If the force strong enough to fracture, intrude, or avulse a tooth is also strong enough to result in cervical spine or intracranial injury. The dentist must be particularly alert to such potential problems, be prepared ahead of time to make a neurologic assessment, and make appropriate medical referral when indicated without delay.

The patient should be assessed for nausea, vomiting, drowsiness or possible cerebral spinal fluid leakage from the nose and ears, which would indicate a skull fracture, the patient should be evaluated for lacerations and facial bone fractures.

Obtaining a baseline temperature, pulse, blood pressure, and respiratory rate should be considered as information to be gathered before addressing the dental needs of the patient.

A quick cranial nerve evaluation involving the following four areas:

1. Extraocular muscles are intact and functioning appropriately; that is, the patient can track a finger moving vertically and horizontally through the visual field with the eyes remaining in tandem.

2. Pupils are equal, round, and reactive to light with accommodation.

3. Sensory function is normal as measured through light touch to various areas of the face.

4. Symmetry of motor function is present, as assessed by having the patient frown, smile, move the tongue, and perform several voluntary muscular movements.

The loss of vitality of some injured teeth occurred as early as 3 months and as late as 24 months after the injury, which justifies a long follow-up period after injury.

Taking a complete dental history can help the dentist learn of previous injuries to the teeth in the area. Repeated injuries to the teeth are not uncommon in children with protruding anterior teeth and in those who are active in athletics. In these patients the prognosis may be less favorable. The dentist must rule out the possibility of a degenerative pulp or adverse reaction of the supporting tissues as a result of previous trauma.

The likelihood of eventual pulpal necrosis increases if the tooth is mobile at the time of the first examination. The greater the mobility, the greater the chance of pulpal death.

Trauma to the supporting tissues may cause sufficient inflammation to initiate external root
resorption. In instances of severe injury, teeth can be lost as a result of pathologic root resorption and pulpal degeneration

**Diangelis and colleagues** have advocated the following classification of crown fractures in describing the extent of damage to the crown of the tooth:

**Crown fracture–uncomplicated**: an enamel fracture or an enamel-dentin fracture that does not involve the pulp.

**Crown fracture–complicated**: an enamel-dentin fracture with pulp exposure.

**vitality test** of the injured tooth should be performed, and the teeth in the immediate area, as well as those in the opposing arch, should be tested. The best prediction of continued vitality of the pulp of a damaged or traumatized tooth is the vital response to electric pulp testing at the time of the initial examination. A negative response, however, is not a reliable evidence of pulp death because some teeth that give such a response soon after the injury may recover vitality after a time.

**Methods of Clinical Examination**

For any fracture case, an accurate medical and dental history should be taken with record information about the condition involves that could be related to the:

1. Cause of the fracture
2. Place of fracture which could be dirty, contaminated, or clean place,
3. The Time of fracture for the treatment plane (for ex. To see the vitality of the tooth). If the fracture before one year, there is high probability that the tooth is non-vital. The time is important in pulp exposure for which pulp capping or pulpotomy would be the procedure of choice. Repeated trauma will lead to less favorable prognosis
4. Pain is very important in determining the extent of the injury. Pain caused by thermal change indicate significant pulp inflammation. Pain during bringing the teeth in occlusion indicate the tooth has been displaced such pain indicate injury to p.d.l. and supporting tissue.