Crown Fracture
Some times might get crown infriction. It is very common on enamel surface of the tooth don’t cross the DEJ, caused by direct trauma usually no treatment for it.

Class I Fracture
Just smoothing the rough, tagged structure at the fractured site and we should observe the condition and we examine the tooth for vitality test.
The patient should re-examined at 2 weeks and again at 1 month after the injury because the tooth may be recovered at that time or peri apical change may occur which effect the vitality gradually.

Class II Fracture
The fracture involve E&D without pulp exposure. It requires immediate treatment to avoid further damaging of the pulp from thermal or bacteria which can transmitted to the pulp through dentinal tubule.
There are factors which effect the treatment
The time dentin has been exposed.
The thickness of the dentin covering the pulp.
The stage of the development of the root.
Little or no dentin is exposed :The fractured tooth and the fractured fragment etched and reattached with a resin bonding material. If only small amount of dentin exposed (well away from the pulp), it should be protected with Ca(OH)2 before being etched but the dressing is removed before the fragment is reattached.
If thick layer of dentin cover that pulp, a direct pulp capping is indicated to cover the dentinal tubule by Ca(OH)2 and hold the medication by means of retainer .We use orthodontic band and fill the gap with cement and we ask the patient to come after some time to check the vitality and the mobility and the band should stay 6-8 weeks if every thing is all right then we restore the teeth acrylic crown good for esthetic colloid crown stainless steel crown cupper ring.

If the patient have class II # near the pulp if the patient come immediately do pulp capping. If the patient come later on then we consider it as exposure and we do root canal filling because the thin layer of dentin left is not enough to protect the pulp from infection.

Class III Fracture
Fracture involve E & D & Pulp.
The objective of the treatment is to maintain the tooth vitality in treatment of vital pulp exposure there are 3 choices of treatment.: direct pulp capping, pulpotomy,
and pulpectomy with endodontic therapy.

1. Direct Pulp Therapy (Pulp Capping)
If the patient is seen with an hour or two after the injury, if the vital exposure is small, and if sufficient crown remains to retain a temporary restoration to support the capping material and prevent the leakage of oral fluid, the treatment of choice is direct pulp capping. Ca(OH)2 is material of choice for direct pulp capping. If final restoration need the use of pulp chamber or the pulp canal for retention, a pulpotomy or pulpectomy is the treatment of choice.
Even the pulp at exposure site has been exposed to oral fluids for a period of time, the tooth should be isolated with a rubber dam and Rx procedure should be done in a surgically clean environment. The healthy pulp may survive and repair even in a few bacteria, the same as connective tissue. The crown and the area of the actual exposure should clean with saline or with non irritant solution. The pulp should be kept moist before placement of pulp capping material. The prime requisite of Pulpal healing is an adequate seal against oral fluids. Therefore a restoration should be placed immediately that will protect the pulp capping material until the healing process is well advanced.

2. Pulpotomy
If pulp exposure in traumatized, immature permanent (open apex) is large or even small pulp exposure exist and patient did not seek treatment for several hours or days after the injury, or if there is insufficient crown remaining to hold temporary restoration, the immediate treatment of choice is pulpotomy (shallow pulpotomy or conventional pulpotomy). A shallow or partial pulpotomy is preferable if coronal pulp inflammation is not widespread and if a deeper access opening is not needed to help retain the coronal restoration. The treatment also indicated for immature permanent teeth if necrotic pulp tissue is evident at the exposure site with inflammation of the underlying coronal tissue but a conventional or cervical pulpotomy would be required.
After the apical closure, root canal filling is necessary to prevent an exaggerated calcific response that may result in total obliteration of the canal.
Another indication is trauma to mature permanent (closed apex) tooth that has caused both a pulp exposure and a root fracture.

Pulpectomy
If patient has acute periapical abscess associated with a traumatized tooth, the trauma may cause small pulp exposure or pulp may be devitalized as a result of injury or severing of the apical vessels. A loss of pulp vitality may caused interrupted growth of the root canal and the dentist is faced with an open apex. The lumen of the canal of an immature tooth is largest at the apex and smallest in the cervical area called blunder buss canal. If an abscess is present, it must be treated first. If there is acute pain and evidence of swelling of the soft tissues, drainage through the pulp canal will give the child almost immediate relief.
A conventional endodontic access opening should be made into the pulp chamber. If pain is caused by the pressure required to make the opening into the pulp, the tooth should be supported by the dentist fingers. Antibiotic therapy is also indicated.