

Patient information

1. Avulsion

Your tooth has been knocked out completely.

It has now been reimplanted and stuck/splinted to the adjacent teeth temporarily.

The splint should be removed after about a week.

Before the splint is removed the nerve needs to be removed from the tooth and calcium hydroxide placed in the root canal as a dressing. In a few weeks the tooth will need to be root filled.

A radiograph should be taken about three weeks after the accident.

A radiograph should be taken after six months, after one year and after five years.

Healing will depend on three factors.

1. The length of time the tooth was out of the socket.
2. How the tooth was stored.
3. The stage of root development when the accident/assault occurred.

The longer the tooth was out of the mouth the worse the future is for it. Your dentist will be able to advise on this.

The tooth needs to be properly root filled. The hospital has not been able to undertake this completely for you. You need to seek the help of your own dentist. A list of dentists around this hospital can be supplied on request.

2. Intrusion/luxation.

Your tooth has been pushed into the socket.

The tooth has been repositioned and the tooth splintered. This should be maintained for between one and two months.

The nerve needs to be removed and the tooth root filled.

It is unlikely that your tooth will reerupt on its own. You may need the help of an orthodontist to get this down into position. Alternatively, some tooth coloured material could be bonded to the tip.

2 Patient information/trauma

Significant factors affecting the prognosis future health of the tooth are

1. The amount of damage sustained.
2. The stage of root development at the time of injury.

You should seek follow up care with your own dentist.

3. Lateral luxation

The tooth has been pushed sideways in the socket. The bone around the has probably been damaged significantly. The outer part of the bone of the socket may well have been fractured.

The tooth should be splinted for a minimum of three to four weeks with a non rigid splint. A radiograph should be taken of the tooth at one month..

If there are signs of breakdown of the support around the tooth then the splint can be maintained for another three to four weeks.

The tooth needs to be root filled. This should probably be done before the splint is removed.

You should seek the care of your own dentist for the follow up unless the hospital specifically requests that you return here.

In either event it is important that you attend for follow up appointments.

4. Extrusion luxation.

The tooth has been partly knocked out of the socket.

The tooth will have been repositioned using gentle finger pressure and it should feel relatively normal.

A non rigid splint will/should have been placed and a radiograph taken.

You should be seen two to three weeks later and a new radiograph should be taken.

If there are no problems at this stage the splint can be removed.

Root canal treatment should be started before the splint is removed. This may be followed by a period of healing with a dressing in the tooth. It can then be root filled.

3 Patient information/trauma

There are some exceptions to this. If it is possible to have pulp tests and radiographic follow up to monitor the nerve it could be left and monitored. The nerve canal could close up.

5. Subluxation

The tooth has been pushed slightly into the wrong position.

The tooth can be repositioned or the opposing tooth can be adjusted. The tooth be splinted to the adjacent teeth to make you more comfortable.

The splint can be removed after two to three weeks.

Nerve problems are relatively rare but the nerve can die.

The most important factor influencing the future of the tooth is the stage of root development at the time of the accident.

You need to have a soft diet for two weeks.

6. Fracture of the alveolar process

The tooth has been badly damaged in an accident, trauma or assault.

A splint will be placed and removed in three or four weeks.

The nerves and supporting tissues around the tooth need to be monitored.

The nerves in the teeth in that segment will almost certainly die and need to be root filled.

You will need some follow up radiographs after one months, two months, six months and one year.

7. Root fracture

The dentine, cement and the nerve of the tooth have all been damaged. A lot will depend on what has happened to the top part of the root.

The top part of the root is often in position but the bottom part of the root is often displaced along with the attached crown of the tooth.

4 Patient information/trauma

This is a complex injury. Most of the damage has occurred in the bottom part of the root and the bit above the fracture line has possibly not been terribly badly damaged.

The tooth will be splinted with a rigid or semi rigid splint.

The tooth may heal with a combination of different tissues such as connective tissue and granulation tissue.

In mature teeth healing by connective tissue and non healing with granulation tissue is what usually happens.

Hard tissue healing is usually what happens when there has been an intact nerve at the time of injury.

Connective tissue healing is related to moderate pulpal damage and minor displacement of the crown of the tooth.

It is quite likely that the root of the tooth will be `nibbled away` around where the fracture has occurred.

It might be possible to gently pull the tooth down with orthodontic treatment. You might need some gum surgery, a post crown or the whole tooth might need to be removed.

The extent of the fracture below the gum margin will determine the future of the tooth. The more serious the damage the tooth has had the less there is to restore and the more likely it is that the tooth will be lost.

If the tooth is lost it could be replaced with a `stick on bridge` called an adhesive bridge or an implant depending on the condition of the bone in that area after the fractured root comes out.

You need to discuss the outcome and future with your own dentist or possibly with the hospital.

8. Crown fracture with pulp exposure

It is important that the tooth is root filled and that some direct composite bonding is done to protect the root filling and to restore the tooth shape and appearance.

More treatment than this may be necessary depending on where the fracture has occurred and how much of the tooth is left.

5 Patient information/trauma

You need to discuss this with the treating clinician or with your own dentist.

If the nerve has just been exposed it may have had a pulp capping put on it. It will have been cleaned with some antiseptic and calcium hydroxide placed over the damaged nerve area.

The tooth can be restored with normal composite resin bonding.

A radiograph should be taken about three months after this treatment. If the damage has removed part of the nerve about 2mm to 3mm of the pulp will have been removed and it may have been dressed with calcium hydroxide or mineral trioxide aggregate (MTA). This will have been covered with some composite resin or modified glass ionomer. The tooth could then be resorted with adhesive composite resin.

Follow up radiographs should be taken for up to five years to assess pulpal death.

In many cases the nerve survives. The survival rates vary.

9. Crown fracture without pulpal exposure

The tooth should be restored with some tooth coloured (composite) material. You should discuss this with your dentist.

10. Treatment priorities for dental trauma

Tooth avulsion – the tooth should be replaced in the socket as soon as possible with minimal contact with the root. If it can not be repositioned immediately it should be stored in milk.

Alveolar fracture – the earlier this is treated the better. The nerves tend to die if delayed for more than three hours

Avulsion, extrusion, lateral luxation, root fracture and pulpal exposure – should be considered as candidates for acute treatment

Intrusion injuries, concussion injuries, crown fracture without pulpal exposure and sub luxation injuries – there is little difference between being treated acutely or sub acutely (ie a short delay)..