CONDITION

Broken or knocked out tooth

Learn what to do after a tooth breaks or is knocked out, when to seek urgent care, and how dentists treat and monitor dental injuries.

WHAT IT IS
Traumatic break, displacement or loss of a tooth

BODY SYSTEM
Mouth and teeth

MAIN SYMPTOMS
Cracked or missing tooth, pain when biting, sensitivity, bleeding or swelling

WHAT CAUSES IT
Impact injuries or biting hard objects

HOW IT IS DIAGNOSED
Dental examination and X-rays

MAIN TREATMENT
Dental repair, repositioning or replantation

CAN IT BE CURED?
Sometimes - depending on damage and healing

IS IT AN EMERGENCY?
Sometimes - knocked-out permanent tooth or breathing difficulty

LONG-TERM OUTLOOK
Many teeth can be saved, but delayed complications may occur

Overview

A tooth can crack, chip, loosen, move out of position, or come completely out after an injury. A tooth that has left its socket is called an avulsed tooth . These injuries most often affect the front teeth, but any tooth can be damaged.

The seriousness of a broken tooth depends on which layers are involved. A small chip may affect only enamel, the hard outer covering. A deeper break can expose dentin, the sensitive layer under the enamel, or the pulp, the soft center containing nerves and blood vessels. Some injuries extend below the gum or into the tooth's root.

Prompt dental assessment matters because damage is not always visible. The root, supporting bone, nearby teeth, or soft tissues may also be injured. Early treatment can relieve pain, protect exposed tissue, and improve the chance of saving the tooth.

A knocked-out permanent tooth is an urgent dental problem. Immediate replantation gives the tooth its best chance of survival, but it should only be attempted when it can be done safely. A knocked-out baby tooth should not be put back because doing so could damage the permanent tooth developing underneath it.

Seek emergency medical care, rather than waiting for a dentist, if the injury involves trouble breathing, uncontrolled bleeding, loss of consciousness, confusion, repeated vomiting, a suspected neck injury, or major facial or jaw trauma.

Symptoms

The appearance and symptoms depend on the type and depth of injury. Pain can be mild even when a tooth has significant internal damage.

Possible signs include:

A root fracture may not be visible. The tooth may look normal but feel loose, tender, or painful when biting. Likewise, a tooth that was hit but did not break can later develop pulp damage.

If a tooth is missing and cannot be found, tell the treating clinician. It may be hidden in a lip wound, swallowed, or, less commonly, breathed into the airway. Coughing, choking, chest discomfort, or breathing difficulty after a tooth goes missing requires emergency assessment.

- A missing piece, crack, sharp edge, or visible split in the tooth
- Pain when biting or releasing a bite
- Sensitivity to cold, heat, air, touch, or sweet foods
- A pink or red area in the center of a broken tooth, which may be exposed pulp
- Bleeding from the tooth, gum, or empty socket
- A tooth that is loose, shorter, longer, or pushed sideways
- Swelling or bruising of the gum, lip, cheek, or face
- A change in the way the upper and lower teeth meet
- A tooth that becomes gray, brown, or darker over time
- A cut containing tooth fragments, dirt, or another foreign object

Causes and risk factors

Common causes include falls, vehicle crashes, sports injuries, playground accidents, physical

assault, and collisions with people or objects. Teeth can also break when biting hard foods or objects.

A tooth may be more likely to break if it has been weakened by decay, a large filling, previous dental treatment, or an existing crack. Repeated clenching or grinding can place additional stress on teeth. Front teeth that project farther forward may be more exposed during a fall or impact.

Contact sports and activities with a risk of falls increase the chance of dental injury. A properly fitted mouthguard can reduce the risk and severity of injuries during many sports. It cannot prevent every dental injury, and it does not replace other appropriate protective equipment.

Children and teenagers often injure front teeth while playing or participating in sports. Knowing whether the injured tooth is a baby tooth or a permanent tooth is important because treatment differs. If you are unsure, store a knocked-out tooth safely and get urgent dental advice rather than trying to replant it.

Diagnosis

A dentist will ask how and when the injury happened. For a knocked-out tooth, the dentist will also want to know how long the tooth was out of the mouth, whether it became dry, how it was handled, and whether it was placed in a storage liquid.

The examination may include the injured tooth, nearby teeth, gums, lips, tongue, jaw, and bite. The dentist will look for fractures, tooth movement, exposed pulp, bone injury, and fragments trapped in soft tissue.

Dental X-rays can show root fractures, bone injuries, tooth displacement, and changes around the root. More than one view may be needed. If a tooth or fragment cannot be located, additional imaging may be considered based on where it could have gone.

The dentist may perform pulp sensitivity tests. These check how the tooth responds to cold or other stimulation. A recently injured tooth may not respond normally even when the pulp can recover, so one early test does not always show the final outcome. Repeat examinations and X-rays help identify healing or delayed complications.

A medical assessment may also be needed when there is a significant head, face, or jaw injury. Clinicians may review tetanus vaccination status if the wound was contaminated.

Treatment and management

Treatment depends on whether the tooth is permanent or primary, the depth of damage, the condition of the root and supporting bone, and how quickly care begins.

First aid for a broken tooth

Rinse the mouth gently with clean water. Apply light pressure with clean gauze if there is bleeding. A cold pack held against the outside of the face may help with swelling.

Find any broken pieces and take them to the dentist. Store fragments in milk or saline if available. In some cases, a fragment can be bonded back onto the tooth.

Avoid biting with the injured area. Very hot, cold, hard, or sweet foods may worsen sensitivity. Nonprescription pain medicine may help when taken according to the package directions and when it is safe for the person taking it. A pharmacist or clinician can help if there are questions about medicines or medical conditions. Do not place aspirin or another medicine directly against the tooth or gum because it can irritate the tissue.

First aid for a knocked-out permanent tooth

Handle the tooth only by the crown, which is the white part normally visible in the mouth. Do not touch, scrape, or scrub the root.

If the tooth is dirty, rinse it briefly and gently with milk, saline, or clean water. Do not use soap, disinfectant, or a brush. Do not remove attached tissue.

If the person is alert and replantation can be done safely, gently return the permanent tooth to its socket in the correct direction. Have the person hold it in place by biting softly on clean gauze. Do not force it.

If replantation is not possible, keep the tooth moist. Place it in cold milk, a commercially available tooth-preservation solution, or saline. Saliva may be used when another suitable liquid is unavailable, but a tooth should not be stored inside the mouth of a young child or anyone who could swallow or inhale it. Do not allow the tooth to dry out.

Contact an emergency dentist immediately. The chance of successful healing decreases the longer the tooth remains out of the socket, especially if it dries.

Knocked-out baby tooth

Do not replant a baby tooth. Doing so can injure the developing permanent tooth. Arrange prompt dental care so the socket, nearby teeth, and permanent tooth can be assessed.

Dental treatment

A small enamel chip may be smoothed or repaired with tooth-colored bonding material. If dentin is exposed, the dentist may cover it to reduce sensitivity and protect the pulp.

When the pulp is exposed, treatment depends on the size and age of the injury and whether the tooth is still developing. The dentist may protect part of the pulp, remove inflamed pulp

tissue, or perform root canal treatment. A larger fracture may require a filling, bonded restoration, or crown. A tooth that cannot be repaired may need removal, followed by discussion of replacement options.

Loose, displaced, root-fractured, or replanted teeth may be repositioned and attached to nearby teeth with a temporary flexible splint. This limits unwanted movement while allowing normal healing. A dentist will decide how long the splint should remain.

After replantation, additional care may include cleaning the socket, checking the position with X-rays, treating damaged soft tissue, considering antibiotics like amoxicillin or doxycycline , and reviewing tetanus protection. Root canal treatment may be needed, but its timing depends partly on whether the tooth's root has finished developing.

Complications

Many injured teeth can be saved, but healing is not always predictable. Problems may appear weeks, months, or years after the injury.

The pulp may become inflamed or die because its blood supply was damaged. This can cause ongoing pain, sensitivity, swelling, drainage, a gum pimple, or tooth discoloration. Some teeth develop pulp damage without obvious symptoms.

Other possible complications include infection, loss of supporting bone, gum recession, continued tooth looseness, or breakdown of the root. Root resorption means the body's cells begin dissolving part of the root. Ankylosis occurs when the root fuses directly to the bone. In a growing child, an ankylosed tooth may appear to sink below nearby teeth as the jaw continues to develop.

An injury to a baby tooth can affect the permanent tooth underneath it. Possible effects include enamel changes, altered shape, or problems with eruption. These outcomes depend on the child's age and the type of injury.

A severely fractured or infected tooth may eventually need to be removed. Follow-up care helps detect problems early, when more treatment choices may be available.

Follow up

Keep all recommended dental visits even if pain and swelling improve. Follow-up timing varies with the injury. Deep fractures, displaced teeth, root fractures, and replanted teeth usually require repeated checks.

At these visits, the dentist may assess color, pain, mobility, bite, gum health, root development, and pulp response. Repeat X-rays may be needed to look for infection, resorption, changes in the supporting bone, or healing around the root.

Follow instructions for brushing, eating, mouth rinses, splint care, and physical activity. The injured area generally needs careful cleaning because plaque around a splint or sore gum can interfere with healing. Avoid using the injured tooth to bite hard foods until the dentist says it is safe.

Contact the dentist promptly if pain or swelling is getting worse, the tooth becomes darker, a gum bump develops, pus or a bad taste appears, fever occurs, or the tooth or splint becomes increasingly loose.

Seek emergency medical care for difficulty breathing or swallowing, rapidly increasing facial or neck swelling, bleeding that does not stop with pressure, or new neurological symptoms such as confusion, fainting, or repeated vomiting.

Sources

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