

Cracked Tooth Syndrome:

An advice sheet for dentists and dental teams

A cracked tooth is an incomplete fracture when a crack runs from the occlusal surface of the tooth down towards the root without breaking apart.



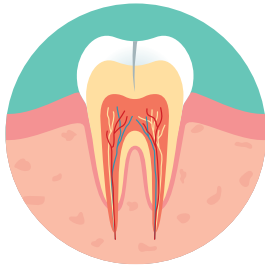
Crack of Enamel



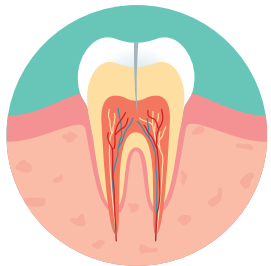
Vertical Crack



Oblique Crack



Crack of Dentin



Crack extending to Pulp



Crack extending to Periodontum

Aetiology

- Previous cavity preparation
- Obturation forces
- Tooth morphology
- Cervical tooth surface loss
- Parafunction
- Trauma
- Psychological stress

Tools of Diagnosis

- Clinical examination
- Clinical tests
- Radiographs
- Cone beam computed tomography
- Tooth slooth®
- Transillumination

Signs and Symptoms

- History of pain on chewing
- Sensitivity from thermal stimuli
- Sensitivity to sweet food or drinks
- Inflamed or infected gingivae
- Localized periodontal pocketing
- Bruxism
- Trismus/aching facial muscles
- Temporomandibular joint dysfunction
- Lost/displaced restorations
- Abrasion
- Wear facets
- Tooth movement or mobility

Prevention

- Avoid chewing hard objects such as fingernails, pen tops and other habits.
- Avoid clenching or grinding their teeth.
- Use retainers or mouthguards to protect teeth during sleep.
- Reduce or avoid if possible psychological stress that increases clenching or grinding of teeth.
- Wear a mouthguard or face shield during sports.
- To seek professional psychological support if required.
- Undergo evaluation and correction of occlusal interference.
- Attend regular dental appointments to allow for the examination of occlusal and contact points regularly.

Treatment

- Relieve pain
- Splint or bruxism appliance
- Restoration
- Prosthesis such as a crown
 - If subgingivally (inside the supracrestal tissue attachment)
 - surgical crown lengthening (+/- laser)
 - orthodontic extrusion
- Surgical premolarization or hemisection
- Extraction
- Referral for psychological support

