

## Acute Apical periodontitis

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### **Introduction:**

Inflammation of the periodontal ligament around the root apex. It can be acute or chronic.

Usually, there will be a history of previous pulpitis.

### **Etiology:**

1. Dental caries

It is an irreversible microbial disease characterized by demineralization of the inorganic portion and destruction of the organic portion of the tooth. It is a complex and dynamic process. The various factors influence the progression of the disease.

2. Pulp necrosis:

3. Occlusal trauma from high restoration

4. Biting on a hard object

5. Inadvertent endodontic procedure:

- Over instrumentation
- Pushing infected material into the apex
- Chemical irritation from root canal medicaments.

### **Clinical features:**

1. Thermal changes do not induce pain

2. Collection of inflammatory edema in the periodontal ligament causing slight tooth elevation in the socket.

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3. Small, pink or red-lobulated mass protruding from the pulp chamber and filling the cavity.
4. It causes tenderness while biting or touching.
5. The edematic fluid pressure against sensitized nerve endings causes severe pain.

### **Radiographical features:**

There will be a slight widening of the periodontal ligament.

### **Histopathological features:**

- Signs of inflammation such as vascular dilatation and infiltration with polymorphonuclear leukocytes were seen.

### **Treatment:**

- If the irritant is removed, resorption of the surrounding tissue will occur.
- If there is occlusal trauma- Selective occlusal grinding is needed.
- Pulpal infection- Tooth can be extracted/ or root canal treatment.

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### **References:**

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