

- Failures in fixed dental
prosthesis

- By: dr Farnoosh Golmohammadi

Postoperative appointment:

Monitor patients dental health

Stimulate meticulous plaque control habits

Identify incipient disease

Introduce corrective treatment needed before irreversible damage

Periodic recall

Longevity is affected by:

Good plaque removal

Patient motivation

Resistance to disease

Restoration design and fabrication

Manifestations of failure:

Pain

Inability to function

Dissatisfaction with esthetics

Broken teeth and or restorations

Inflammatory swelling

Bad taste

Bad breath

Bleeding gums

Anxiety

Referral

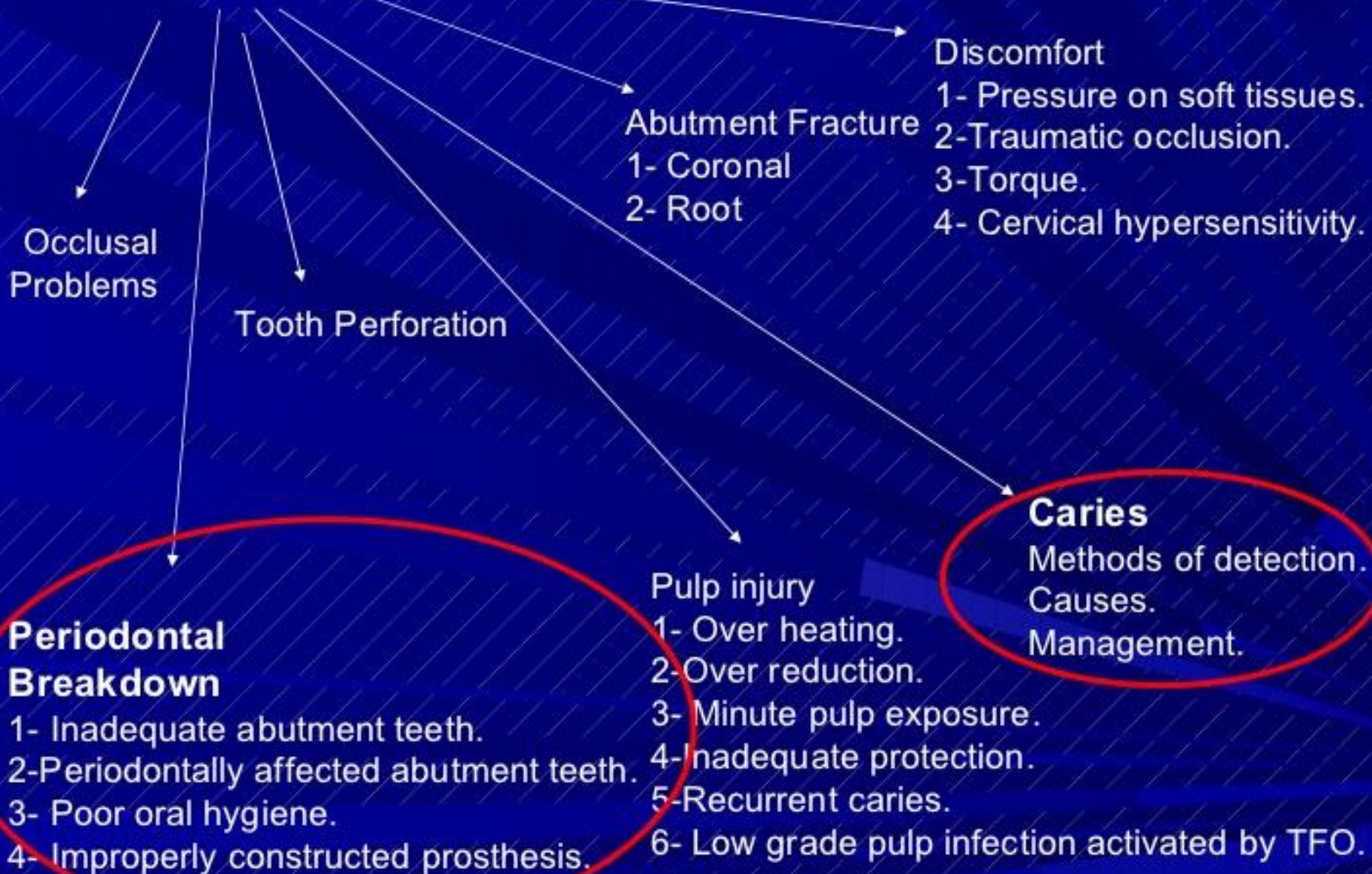
Causes of Fixed prosthesis failure:

- 1- improper case selection .**
- 2- Faulty diagnosis and treatment plan.**
- 3-Inaccurate clinical or laboratory procedures .**
- 4- poor patient care and maintenance following insertion.**

Classification of fixed prosthesis failure



Biologic Failures:





Pulp injury



Abutment fracture









Periodontal breakdown



Occlusal problems



Caries





Discomfort



Tooth perforation



Mechanical Failures.

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graph TD; A[Mechanical Failures.] --> B[1- Looseness or dislodgement.]; A --> C[2- Prosthesis Fracture.]; A --> D[3- Occlusal wear or perforation.];
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1- Looseness or dislodgement.

- a- Lack of retention...
Faulty preparation.
Improper design
Improper construction
- b- Recurrent caries.
- c- Mobility.
- d- Torque.
- e- Faulty Cementation.

2- Prosthesis Fracture.

- a- Joint fractures.
- b- Facing fracture.
- c- All ceramic crown fracture.
Faulty preparation
Faulty construction
Faulty cementation
- d- Post fracture.

3- Occlusal wear or perforation.

Prosthesis fracture



Occlusal wear



Looseness











Esthetic Failure:

•A) at time of cementation

1- actual failure:

Color mismatch

Poor tooth contour, marginal roughness & extension

Metal display in partial coverage

Improper pontic placement

Porcelain fracture during cementation

2- color blindness

3- unrealistic complains by the patient:

Inadequate communication

Unrealistic expectations of the patient
dysmorphophobia

•B) delayed esthetic failures

1- gingival recession

2- subpontic tissue shrinkage

3- periodontal surgery

4- porosity

5- drifting of anterior teeth

6- wear





Metal allergi



AESTHETIC FAILURE!!!



Avoiding Failure:

- 1- Caution at the planning stage.
- 2-Confirmation of diagnosis and treatment plan for the inexperienced operator.
- 3- Expertise of the technician.
- 4- Treatment of preoperative problems.
- 5- Search for the primary cause of failure rather than the apparent.

When the prognosis is questionable , the methods used to facilitate re-treatment are:

- 1- Use of temporary cement .
- 2- Design of prosthesis for possible future addition.
- 3-The placement of a rest seat for possible future use.
- 4- Specified undercut or guide plane of a crown , even when a denture is not planned.
- 5- Planning and noting solder joint placement.
- 4- recording of shades.
- 5- recording of cements used.
- 6- retention of working casts and provisional restorations.

Case # 1

Carious abutments

Case Presentation:

75 years old

6-unit bridge

Satisfactory for 9 years

Prefers not to have a new one

Clinical examination: carious abutments 11, 13

Management:

Caries removal

Root canal treatment

post and core done for each tooth

Bridge lasted for the remaining 6 years





Case # 2

loss of a doubtful tooth that is a key bridge abutment.



Case Presentation:

History of root fracture of tooth # 23

History of large post in the tooth

One 10-unit bridge (15_25)

Problem anticipated when bridge was made 3 years ago

Management:

Upper molars distal to the bridge prepared parallel to the bridge abutments

They were soldered

Split root extracted

Hollow area of tooth # 23 retainer filled with composite

14-unit bridge recemented, served for 12 years





Case # 3

Periodontal Breakdown:

Case Presentation:

Advanced periodontitis

Complicated by tooth loss and mobility

Had a partial denture (not coping well with it)

Wishes to consider a fixed restoration option

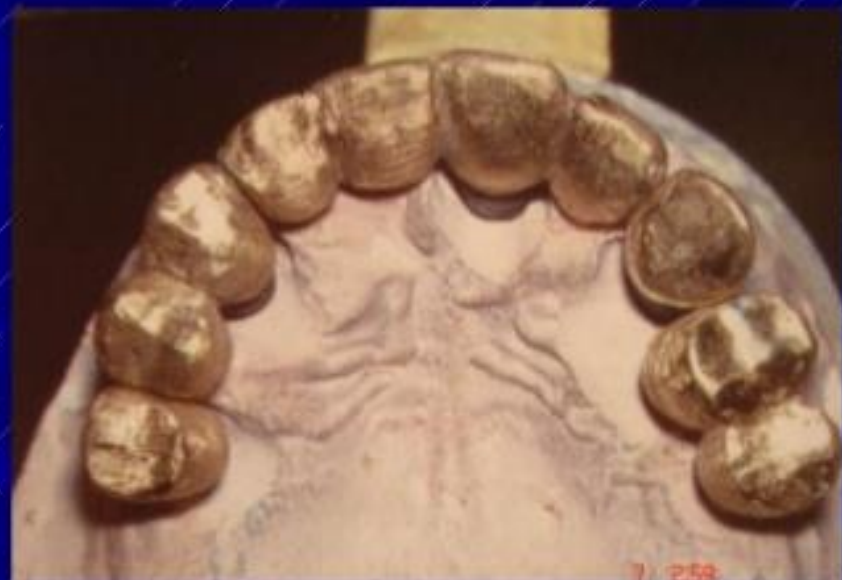
For health reasons implants were not a practical option

Management:

Teeth prepared for full crowns

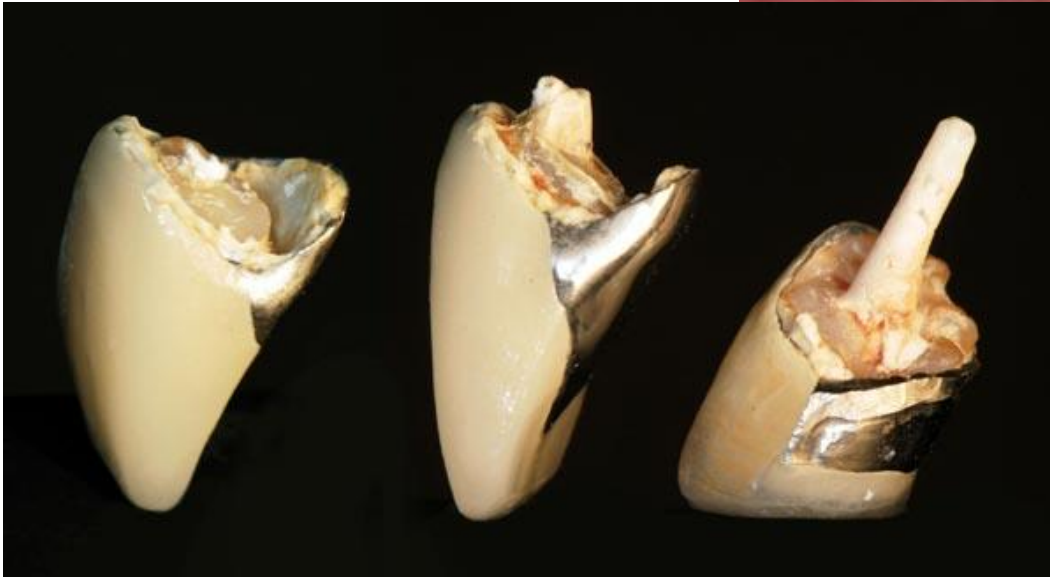
Telescopic crowns with parallel path of insertion cemented permanently

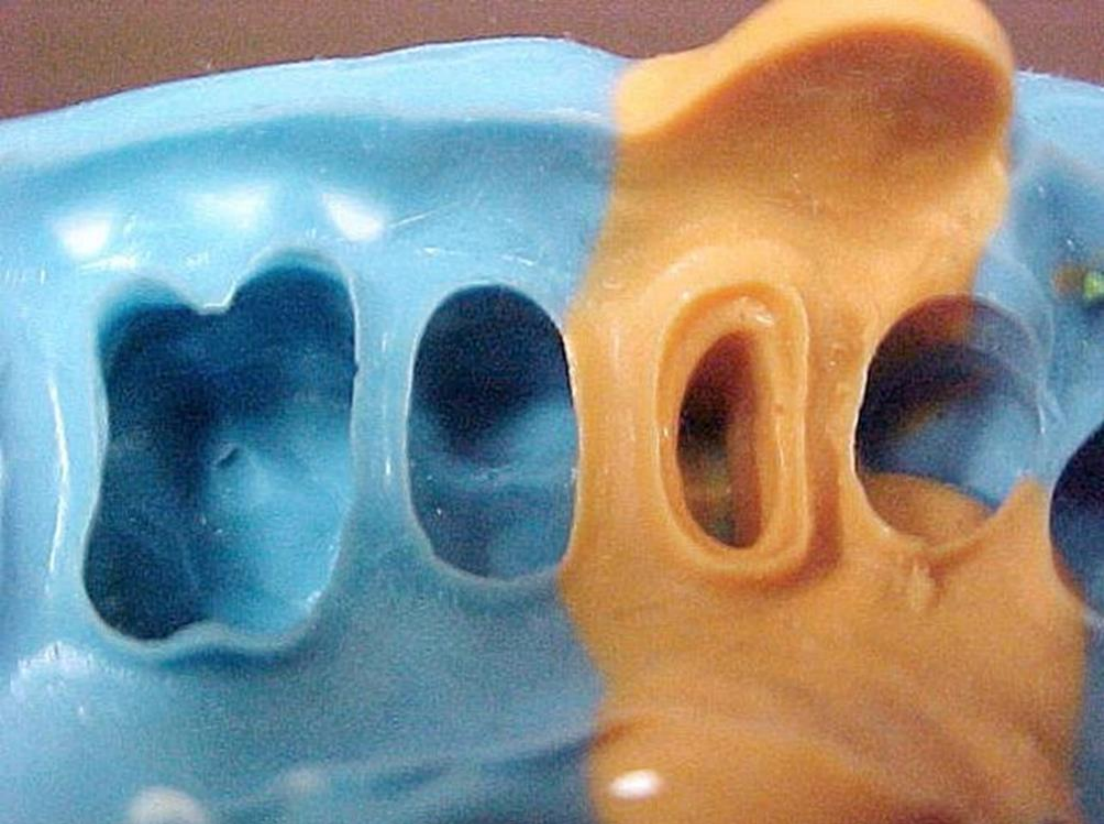
One piece fixed bridge fabricated over the crowns



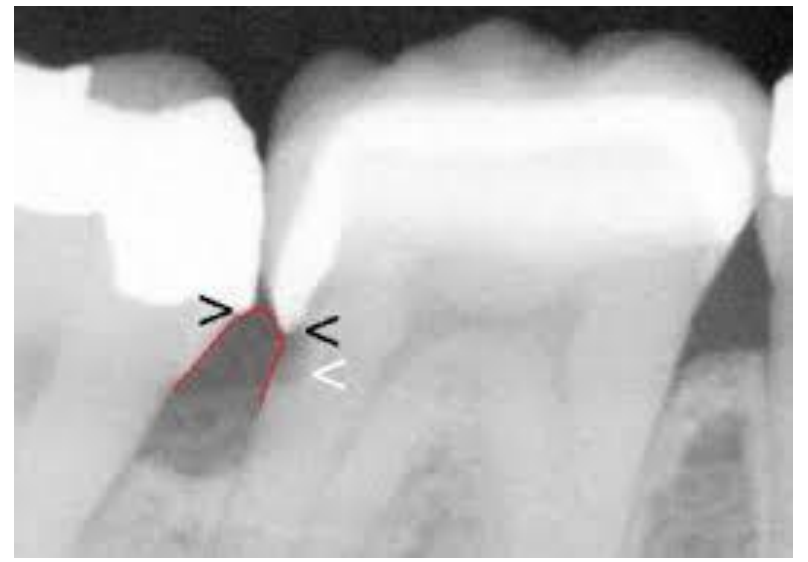
Failure of cementation of a retainer

1. Inadequate tooth preparation.
2. Poor fit of the restoration.
3. Poor cementation.
4. Occlusal factors.
5. Differential mobility between abutments.
6. Inappropriate design of restoration.
7. Inappropriate choice of cementation material.



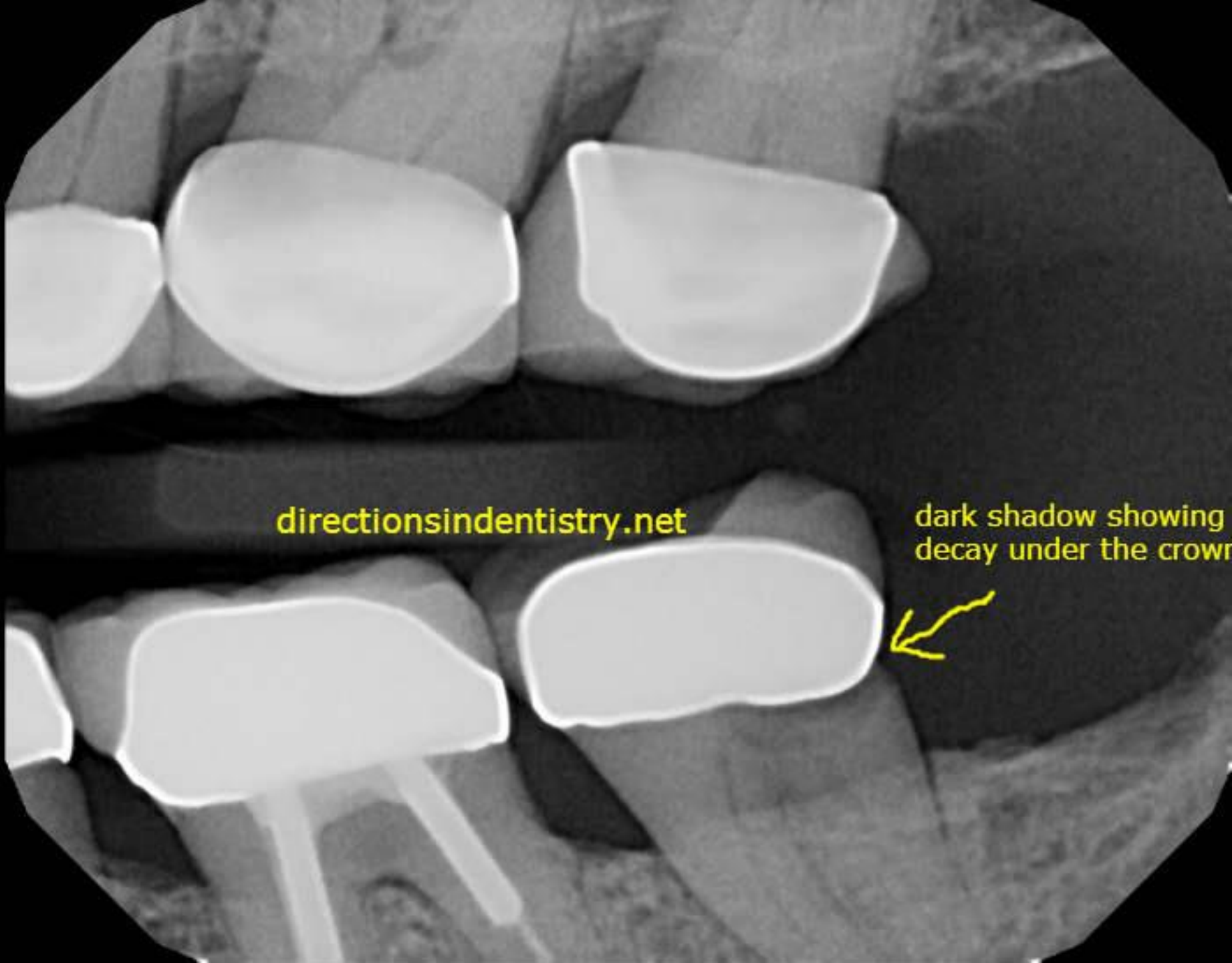






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dark shadow showing
decay under the crown



A close-up photograph of a tooth in the mouth. The tooth is off-white and shows a dark, irregular hole at the bottom, which is a cavity. The surrounding gum tissue is pink and appears slightly inflamed. A yellow arrow points from the text 'Cavity (also known as decay)' to the dark hole. A yellow watermark '@rectionsindentistry.net' is visible on the tooth's surface.

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Cavity (also known as decay)









Oxidized metal

Opaque porcelain

Body porcelain













هميشه تهنه ميعد