



INTRODUCTION TO DENTISTRY



LEC NO. : 6

DONE BY : Asia Al-wedyan.

وَقُلْ رَبِّ زِدْنِي عِلْمًا



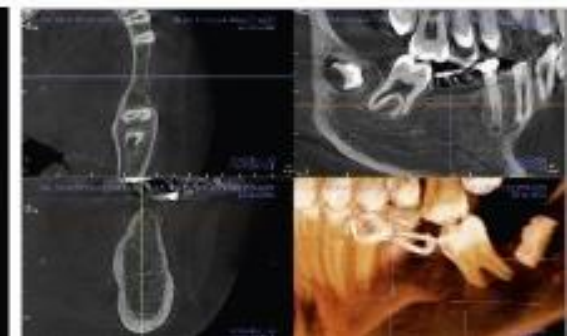
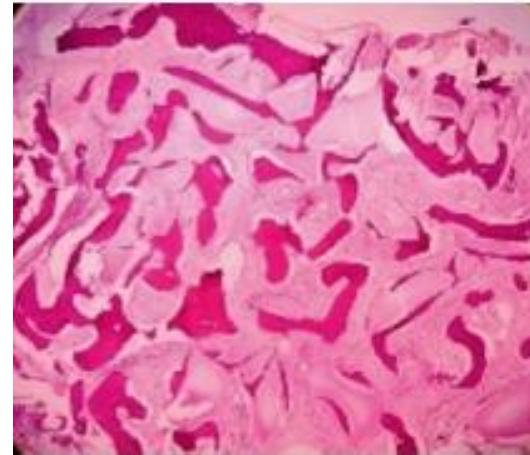
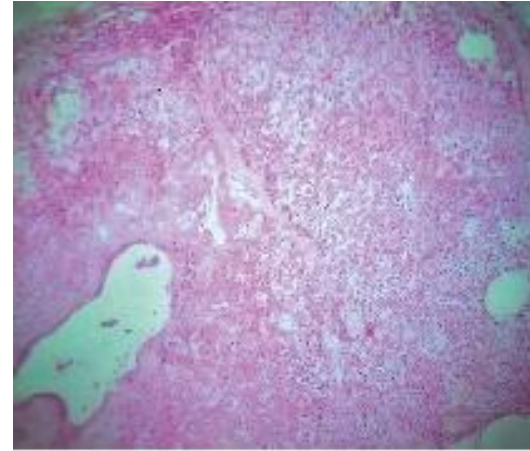
Oral Surgery, Oral Medicine and Oral Radiology

Ass. Prof. Reda Gaber

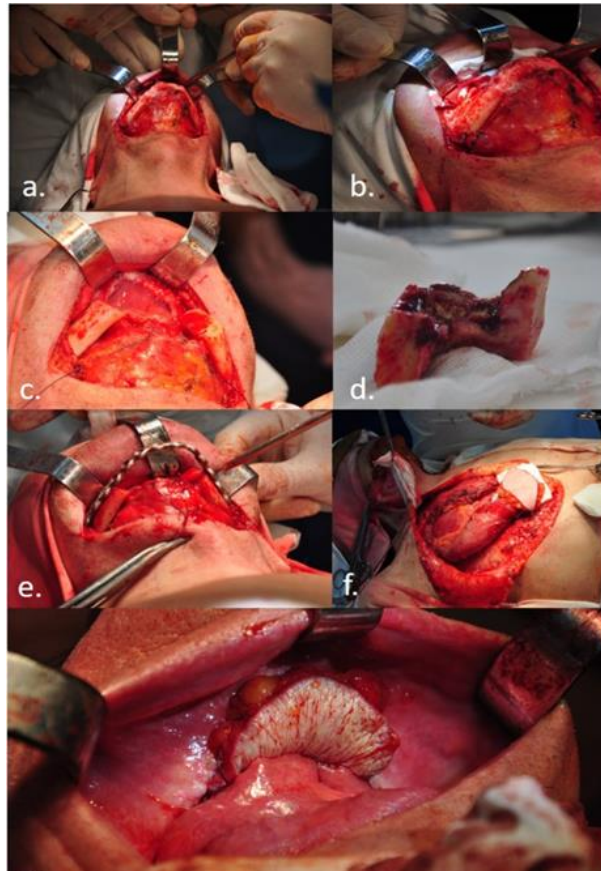
Oral Biology

Oral Surgery
Oral Medicine
Oral Radiology

Oral Pathology
Oral Biology



Oral Surgery or Oral and Maxillofacial Surgery



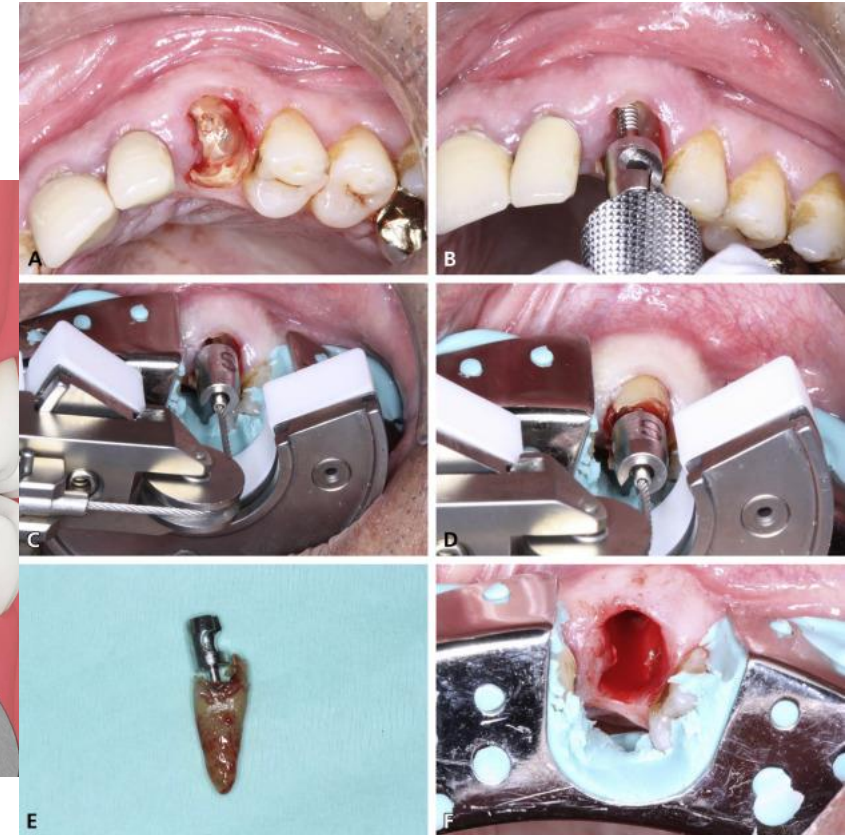
Definition

Oral and Maxillofacial surgery is a branch of dentistry, that deals with the art of diagnosis and treatment of various diseases, injuries and defects involving the orofacial region.



- The field of Oral and Maxillofacial surgery **has evolved through the ages**. From extracting teeth by tying a thread around the tooth to refined techniques of today, the field has come a long way..

هو تطور الادوات الملعوا للاستانة



Andre Fouchard

ادول هذا اسم
علم الاسنان

- He is considered to be **the father of Dentistry**
- It was **between 1650 and 1800** that the science of modern dentistry developed.
- And in **1728 Pierre Fauchard**, who was widely acknowledged as the “**Father of Modern Dentistry**”





Father of oral surgery

James Edmund Garretson



- **James Edmund Garretson** (1829-1895) MB DDS was a professor of Dental college in Philadelphia.
- With his work a treatise on *The Diseases And Surgery Of Mouth Jaws And Associated Parts* first published in 1869, helped to establish Oral & Maxillofacial surgery in U.S
- He is known as the *father of oral surgery*
- He established oral surgery as a branch of medicine and dentistry though distinct from both



SCOPE of Oral & Maxillofacial Surgery



AN ORAL AND MAXILLOFACIAL SURGEON'S SPECTRUM



DENTOALVEOLAR SURGERY



IMPLANTOLOGY



TMJ SURGERY



MAXILLOFACIAL TRAUMA



CRANIOFACIAL SURGERY



CLEFT LIP AND CLEFT PALATE SURGERY



ORTHOGNATHIC SURGERY



RECONSTRUCTIVE SURGERY



HEAD AND NECK ONCOSURGERY



FACIAL AESTHETIC SURGERY



Oral and Maxillofacial surgery essentially deals with the treatment of the following conditions

1. Simple and complicated extractions of teeth and related management.

خلع الاسنان وعيه ابسط اشني

Cysts:

وصول الالتهاب للعظم ، فيصير عندي تاكل بالعظم و بتكون

تجويف و جوا التجويف يتعبى مي

Tumors:

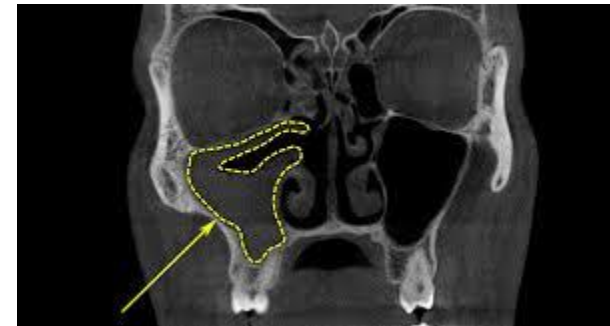
ان يتعبى التجويف tissue

2. Treatment of cysts and tumours of both odontogenic and non odontogenic origin, involving the jaw bones.

حبها بنان

او حد بنان اسفل تاني

3. Management of disorders of maxillary sinuses.

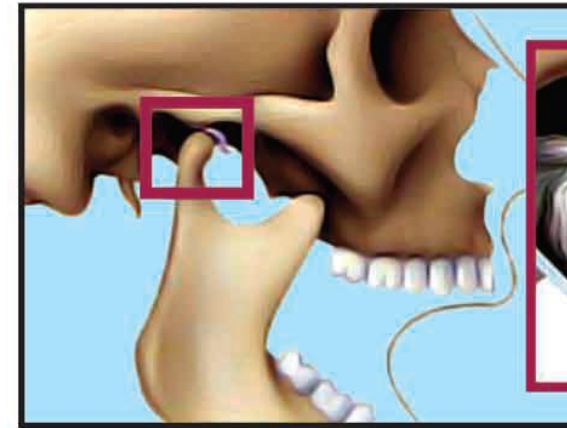


صار عندي حادث انقطع او انكسر جزء من الفك او الانسجة

4. Initial and definitive management of traumatic injuries of soft and hard tissues of orofacial region.



5. Temporomandibular joint disorders including internal derangement and ankylosis.



6. Salivary gland diseases and their management.

امراض الغدد اللعابية

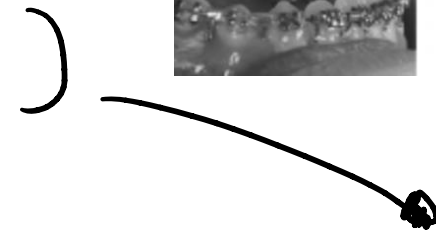


7. Diagnosis and management of **Dentofacial deformities**, either acquired, developmental or congenital (including clefts of the lip and palate).

مشاكل وراثيه في شكل الفكين

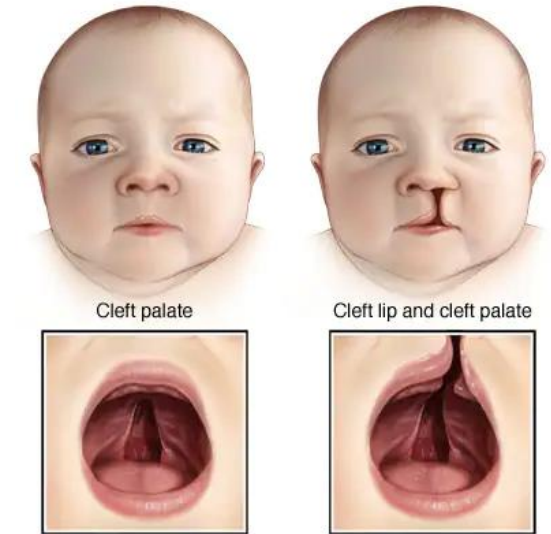


8. Management of **orofacial infections** involving the soft and hard tissues.



زراعة الاسنان

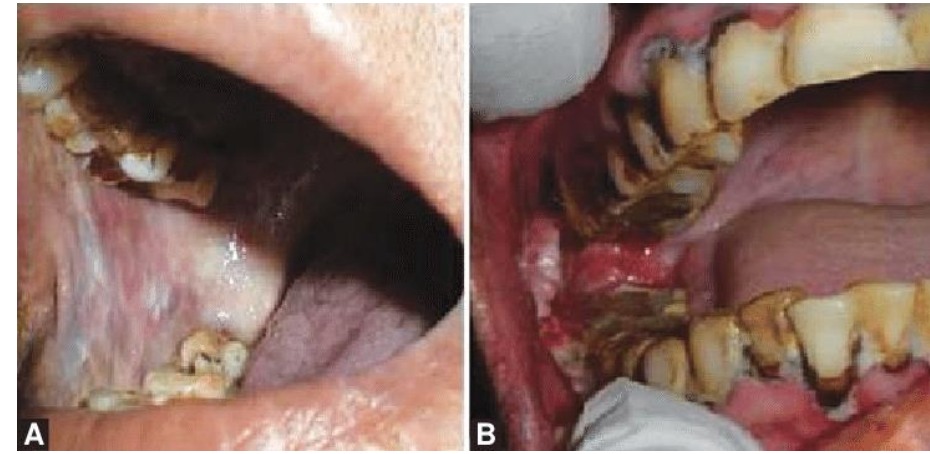
9. Pre-prosthetic surgical procedures including **implantology**.



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10. Precancerous lesions such as, oral submucous fibrosis and leukoplakia.

امراض ما قبل السرطان ،
يعني امراض بتتحول
cancer or toumerJ



11. Detection and management of oral cancer.

علاج السرطان الي بصير في الفم

12. Management of orofacial pain.

اعوض اجزاء من الفك راحت بسبب حادث او غيره

13. Reconstruction of missing portion of jaw bones with bone graft/distraction osteogenesis.



14. Detection and management of facial neuropathy



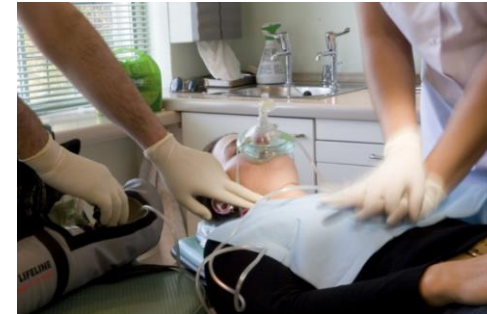
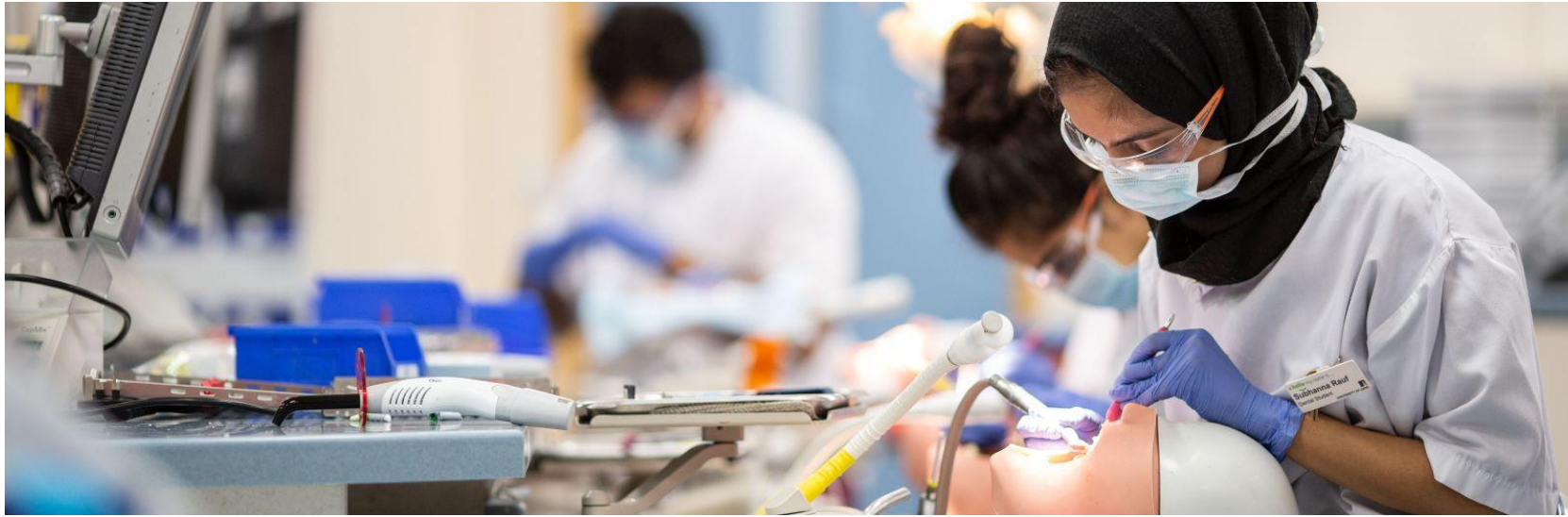
- The scope of Oral and Maxillofacial surgery **depends on** the qualifications and capabilities of the person.
- There is a definite distinction in **the case selection** for
 1. An **undergraduate** trained in oral surgery
 2. A **postgraduate** trained in Oral and Maxillofacial surgery
 3. Cases that require **multidisciplinary approach**.

يعني كل الشغل و الحالات الي كانت فوق ممكن يعملها undergraduate شخص لسا بتدرب و بدرس

او postgraduate يعني طالب مخلص بس عن بكمل ماجستير دكتوراه و غيره

او multidisciplinary مجموعه من الدكاتره مش واحد

- An undergraduate trained in oral surgery is expected to deal with:



1. Simple **exodontia** خلع بسيط
2. **Complications arising from routine extractions like, tooth/ root fractures, tissue laceration, post extraction bleeding, minor post extraction infections**
بيعمل ال complication بعد الخلع ، مثلا صار عندي التهاب في الجرح ، يخييط انسجة لو تقطعت مثلا ينضف المكان بيشيل عضم مكسور وهكذا
3. Immediate management of **medical emergencies in the dental office**
او مثلا المريض لما شاف الابره اغمى عليه فالمفروض هوه ك undergraduate يكون قادر انو يعمل management مع هيك حالة او ظرف
4. **Minor surgical procedures like apicoectomy and alveoloplasty.**
يصير يعمل جراحات فرعيه و صغيره بالاشراف مع دكتور او هيك

• A postgraduate student in Oral and Maxillofacial surgery deals with:

1. Complicated exodontia
2. Capable of handling the various pathologies of the face and the jaw bones



Multidisciplinary Team Approach



الفريق هاد الي بدو يشتغل بهيك موضوع.
بدو يكون متكون من خمس اعضاء تقريبا :

Cleft Lip and Palate

- The oral and maxillofacial surgeon forms an important part of **the cleft lip and palate management team**, that comprises of

1. The **plastic surgeon** جراحة تجميل
2. The **paediatric surgeon** جراحة عظام
3. The **orthodontist** تقويم
4. The **pedodontist** اطفال
5. The **speech therapist.** اخصائي نطق



Unilateral Cleft Lip



Bilateral Cleft Lip



Cleft Palate

- The oral and maxillofacial surgeon **plays an important role in :**
 - Primary as well as secondary closure of the palate**
 - Correction of residual deformities of the maxilla and the mandible at a later stage.**

هو اهم اشني بعملو ال oral and maxilla facial surgeon الي هيه انو كيف يسكرو الشفة الارنبية

Craniofacial Syndromes

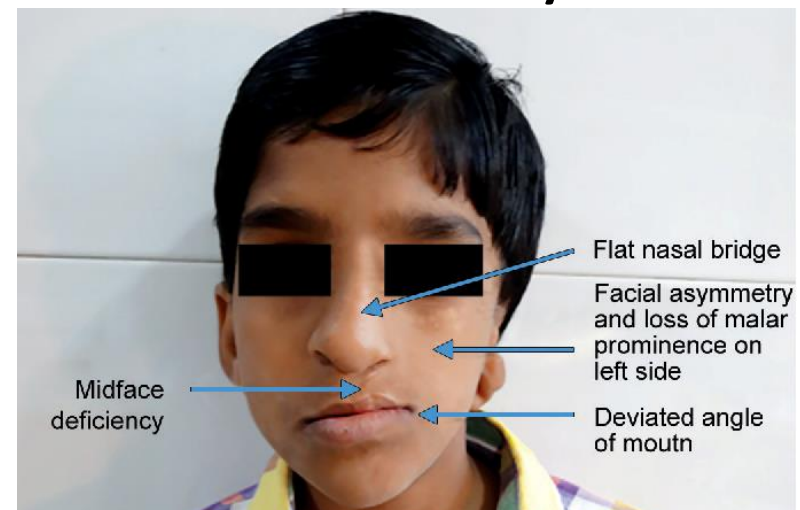
- The oral and maxillofacial surgeon also forms a part of the core group, consisting of

1. Neurosurgeon

2. Plastic surgeon جراحة التجميل

3. ENT surgeon الانف و الاذن و الحنجرة

- involved in treating craniofacial abnormalities, especially syndromal, like Crouzon's syndrome or Goldenhar syndrome etc.



Trauma Unit

عمل حادث صار كسر بالفك مثلاً

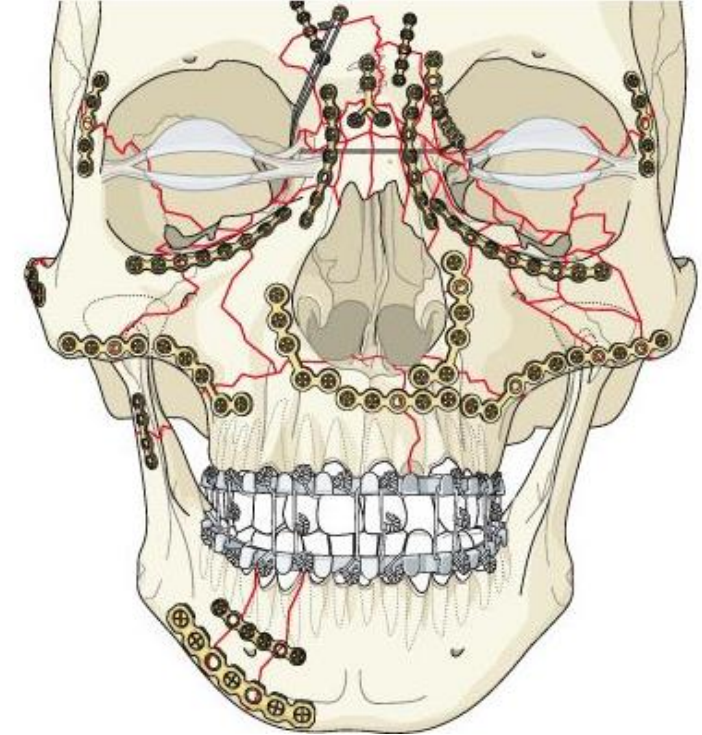
- The oral and maxillofacial surgeon is also involved in the trauma unit along with

1. Orthopaedic surgeon جراحة عظام

2. General surgeon جراحة عامة

3. Plastic surgeon جراحة تجميل

ولازم يكون في عندي دكتور تخدير باي اشي في جراحة

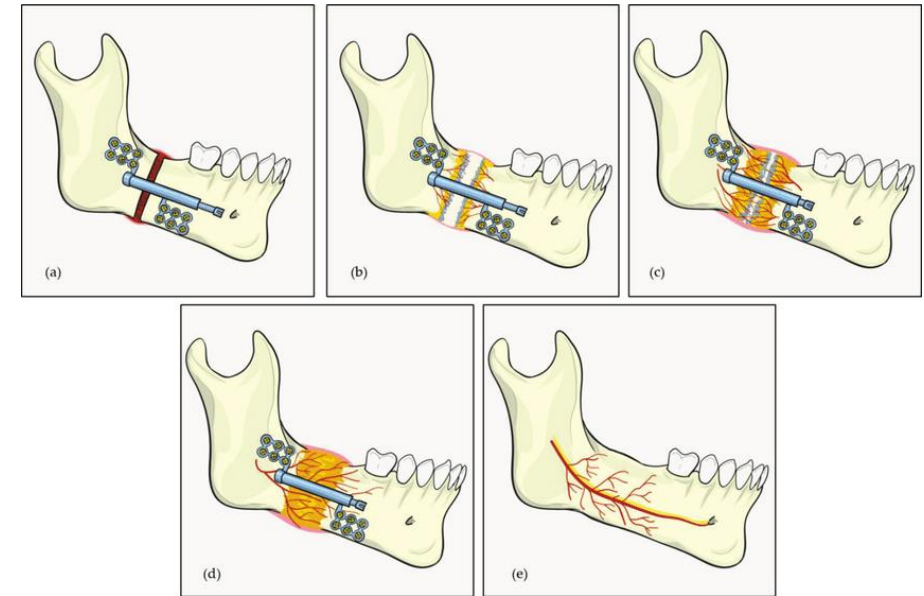
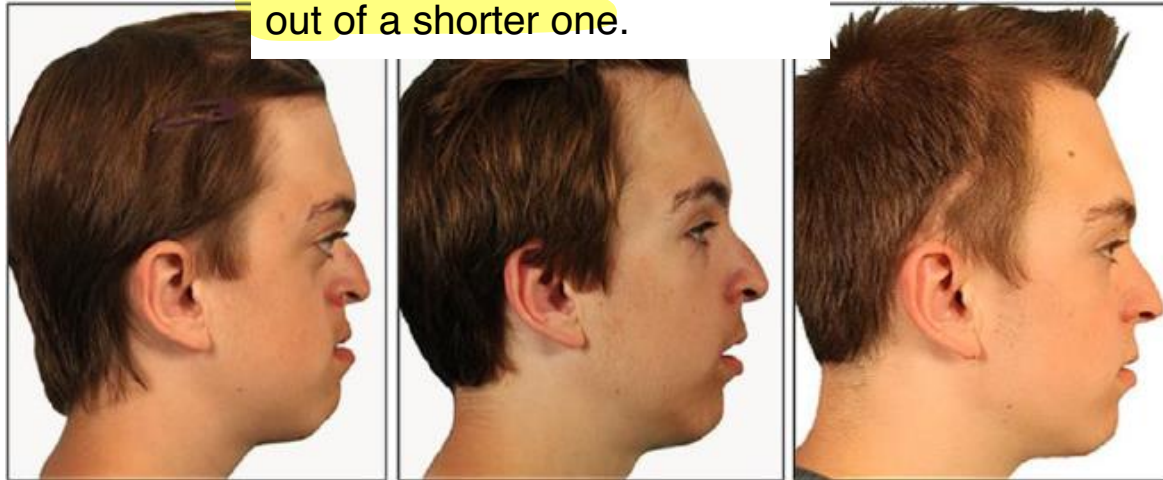


- The oral surgeon, thus, forms an important link between the various specialities in the treatment of craniofacial pathologies.

Newer Advances

- The field is constantly evolving and adapting newer techniques, to refine the surgical procedures, and to achieve precision with minimally invasive techniques. One such technique that has revolutionized the treatment of facial deformities is **Distraction Osteogenesis**.
- The technique deals with the **elongation of the bone by gradual callus distraction**.

Distraction osteogenesis is a way to make a longer bone out of a shorter one.



- **The students are advised to keep themselves updated with new literature on the subject.**

Oral medicine

Oral medicine is the specialty of dentistry that is concerned With:

بكون في عمليات جراحية قليلة هوه
برجع لل treatment اكثر من انو
يصير عندي تدخل جراحي

➤ The diagnosis and management of disorders or condition affecting the oral and maxillofacial region

➤ The oral health care of medically compromised patients

هوه بقدر يحدد شو مال المريض من اشياء
بتطلع بتم المريض ، مثلا لو طلعتلو قرحة هوه
رح بكون بقدر يشخص انو هاد المريض مثلا
انو عندو مشاكل بالامعاء



Oral Medicine field

related to four major areas:

- (1) diseases of the oral mucosa,
- (2) diseases or disorders of the orofacial region
- (3) salivary gland
- (4) orofacial pain

1- Diseases of the oral mucous



2. Diseases or disorders of the orofacial region and maxillofacial area

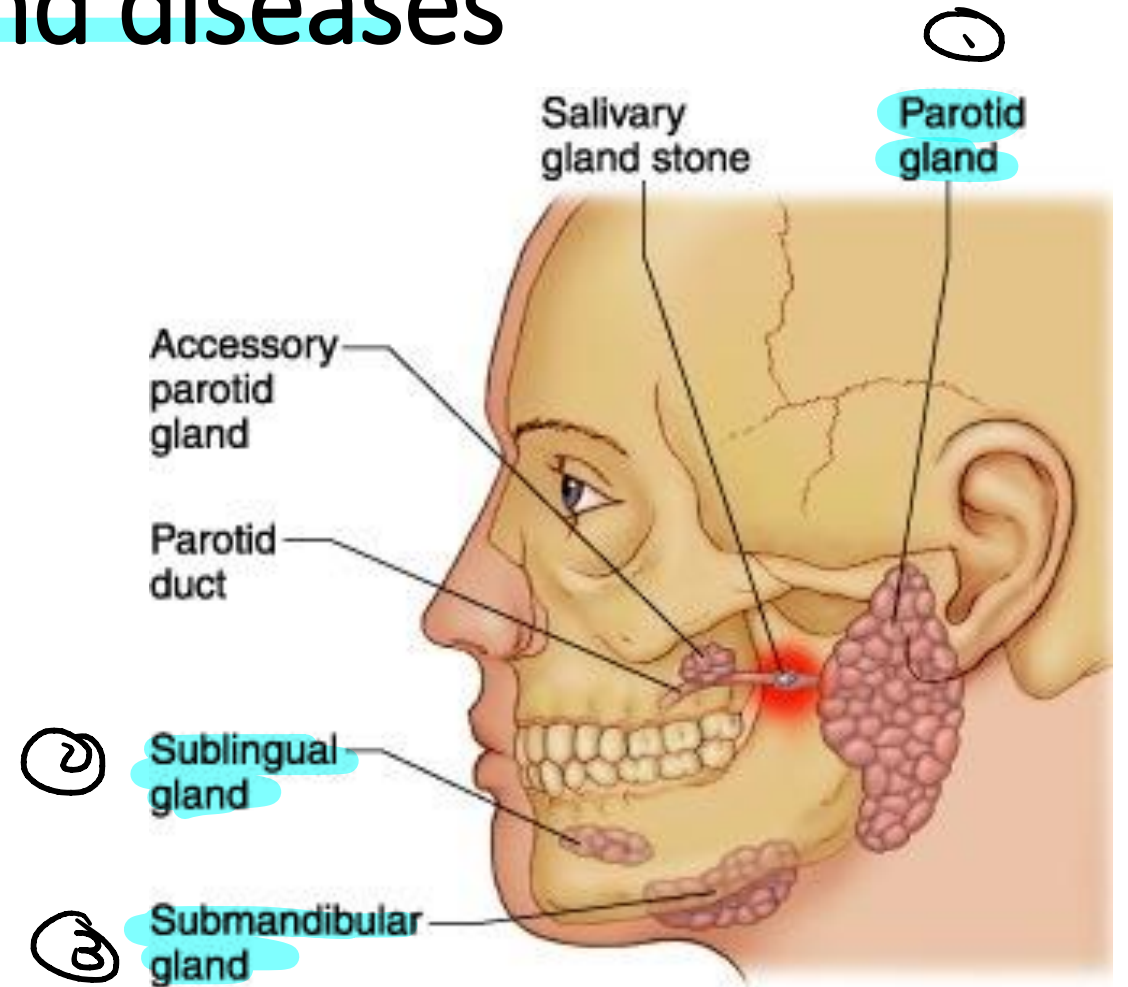


3- salivary gland diseases

امراض كلها في ال salivary glands

Common Types of Salivary Gland Disorders:

- Benign Tumors
- Cysts
- Malignant Tumors
- Sialadenitis
- Sialadenosis
- Sialolithiasis
- Sjorgen's Syndrome
- Viral Infections



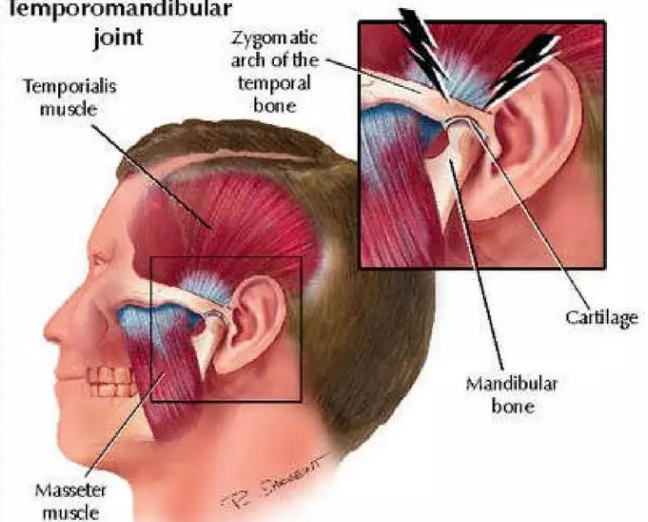
The major glands in the oral

4. Orofacial pain and Temporomandibular disorders

- The specialty of Orofacial Pain focuses on the prevention, evaluation, diagnosis, treatment and rehabilitation of chronic orofacial pain disorders and jaw dysfunction.



Temporomandibular joint



Oral Diagnosis

اهم اشئ انك تعمل تشخيص للحاله

الاشعاع



Oral Diagnosis

- Oral diagnosis is that branch of dentistry dealt with the identification of oral disease whether of local or systemic origin.



QUALITIES OF A GOOD DOCTOR

The Good diagnostic is the Good doctor

Oral Diagnosis

- The clinician's ability to arrive at an accurate diagnosis involves several skills

Using these skills, the practitioner can gather data in an orderly and concise way

- • The power of observation قدرة على الملاحظة
- • Knowledge
- • The ability to listen

How to Diagnose a case?

Case History



Clinical examination Extraoral, Intraoral



↓
① **Review of data** عن طريق الادوات الي معي

② **Differential Diagnosis** اشك شو هو نوع المرض الي عند هاد المريض حسب حاله الي بين ايدي اودي العينه لمختبر

③ **Clinical tests, Laboratory tests, Imaging Studies**

مهم اني اخذ الهستوري تبع المريض عشان اقدر اعرف شو ممكن اتصرف و كيف اعالجه مثلا لو كان عندو مشاكل بالقلب ما بقدر اخلع لانو ممكن يكون عندو سيوله بالدم

و برضو ممكن يكون عندو ايدز فلا زم اعرف عشان احمي حالي و احمي باقي المرضى

Definite Diagnosis

X-ray



Historical Perspectives of Diagnostic Radiology



Wilhelm Conrad Roentgen



- *1845-1923 (Bavarian physicist).*
- *Discover x-rays in November 8-1895*

اول واحد عمل على X-ray و
عملها على مرتبه اول مره

First Radiograph

- *December 22, 1895*
- *Radiograph of Mrs. Bertha Roentgen's hand*

به نام زوجه



Importance of radiographic examination

1-Necessary component for comprehensive patient diagnosis.
بتساعد على ال diagnosis

2-Identify conditions that may otherwise go undetected clinically.
بتحدد لي نوع المرض و حصل متى و هل هوه عم بيزيد ولا لا

3-Provide a wealth of information about the teeth and supporting structures.
بيعطيني معلومات اضافيه عن شكل الاسنان .

X-Ray
فأشعة
Fissure

الكورونا شبة خالية



N.B Early diagnosis saves lives.

Without diagnosis there can be no treatment, there can be no cure.

Oral and Maxillofacial Radiology

- **Radiology**: A branch of medical science that deals with the use of x-rays, radioactive substance and other forms of radiant energy in the diagnosis and treatment of diseases.
- **X-ray**: Wave type of energy that produced by special device called x-ray machine.

Oral and Maxillofacial Radiology

صورة الاشعة

- **Dental radiography**: the production of image of teeth and adjacent structures by exposing a film to x-ray .A radiograph may also called 'radiogramme', roentgenogramme ,roentgenograph.



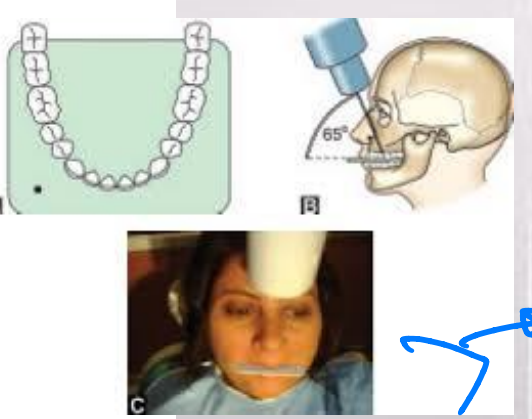
مين الي رح يعمل الصورة

- **Dental radiographer**: Any person who positions, exposes, and processes dental x-ray films



TYPES OF DENTAL X-RAYS

٢D
↓
اصول ال ٢D



Periapical

عشان اشوف جذر السن و اشوف المنطقه الي حواليه

1
internal x-ray



Interproximal

عشان اشوف اذا في تسوس ولا لا او اشوف الحشوه اذا معموله صح

2



Panoramic

external x-ray

3



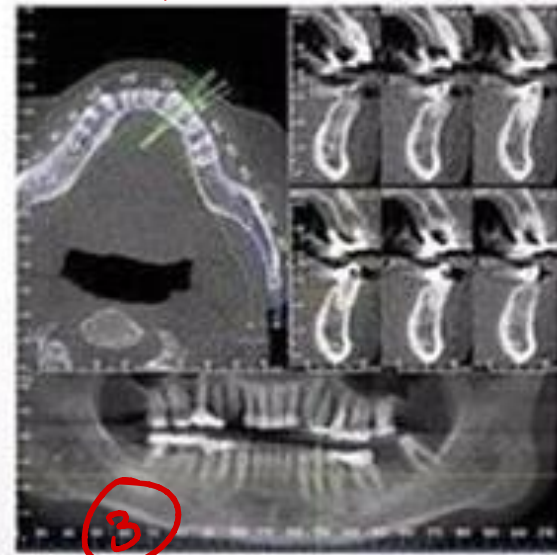
Occlusal

3



Cephalometric

2



CBCT

3

3D
↓

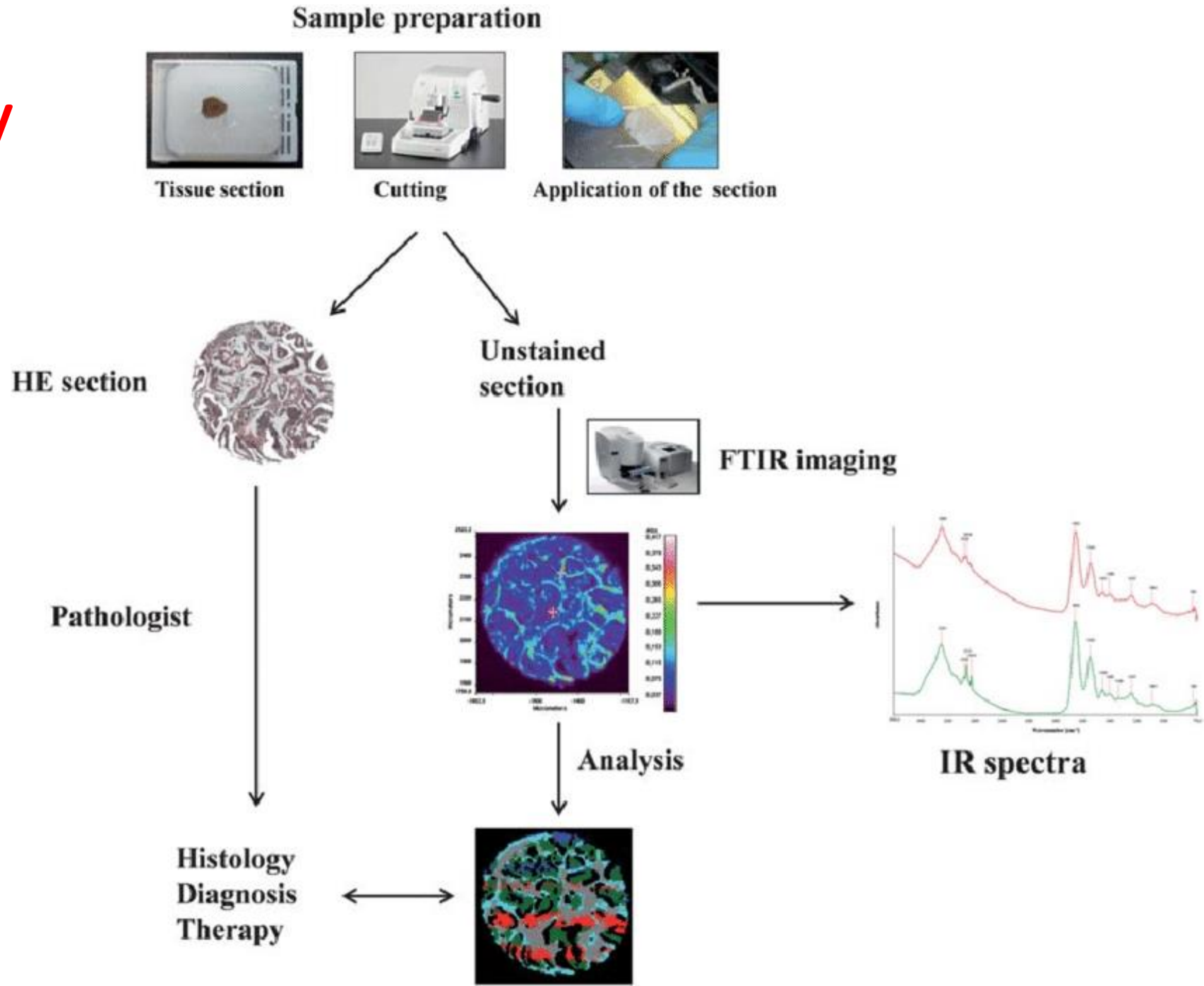


Laboratory investigation

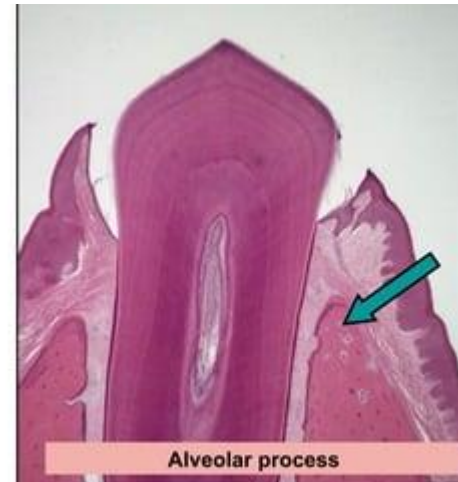
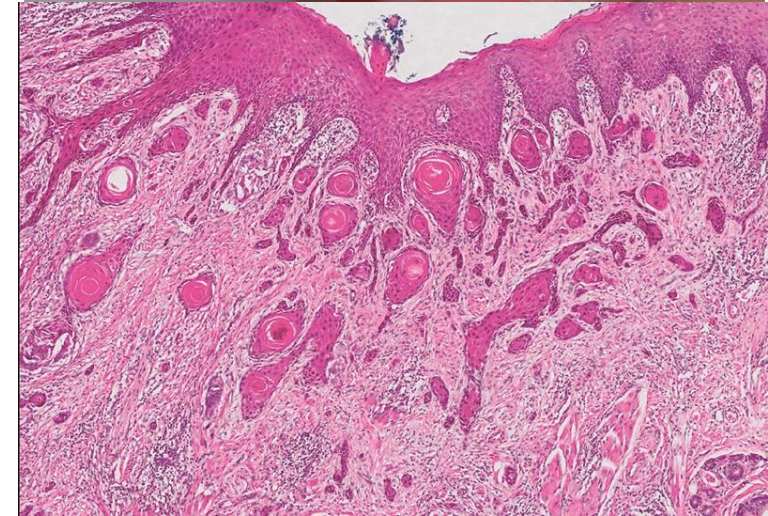
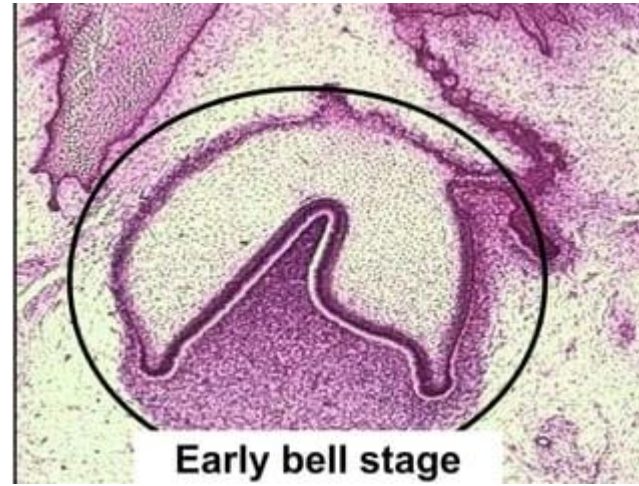
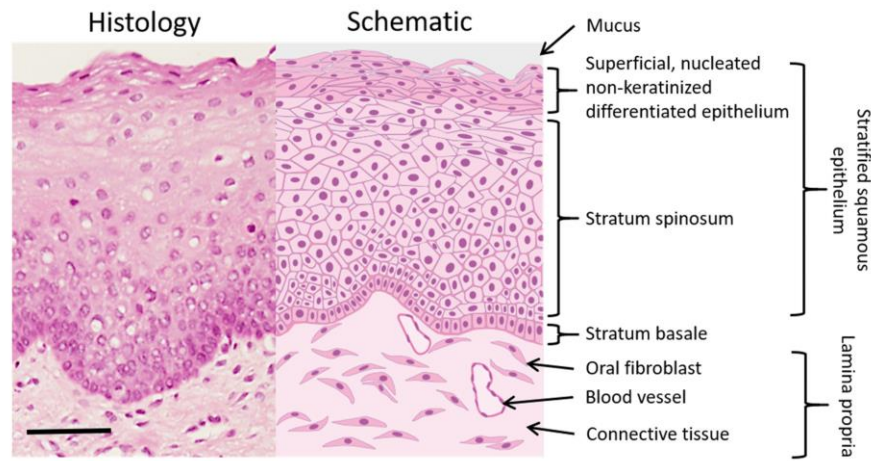


Oral Pathology

بيتعامل مع كل الامراض الي احنا قلناها فوق



Oral Biology



THANK YOU

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