**Mid Term Assignment Session 2020**

 Dental Technology (6th semester)

 Subject: Maxillofacial Surgery

Total Marks: 30

Passing marks: 15

Note: Attempt ALL questions.

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**Q1.** A) Define Oral mucosa.

**Answer:**

The oral mucosa is the mucous membrane lining the inside of the mouth. It comprises stratified squamous epithelium termed as oral epithelium and an underlying connective tissue termed lamina propria.

 B) Enumerate the two components of oral mucosa.

**Answer:**

The two components of oral mucosa are

1**. Stratified squamous epithelium**

 **2. lamina propria**

 C) Enumerate types of oral mucosa. Which type comprises most of the oral cavity?

**Answer:**

1. MASTICATORY MUCOSA :
2. LINING MUCOSA :
3. SPECIALIZED MUCOSA :

Linning mucosa comprises most of the oral cavity (about 60%)

 D) Define Connective Tissue Papilla, Basement Membrane and Rete Ridges.

**Answer:**

**Connective tissue papilla:**

 these are irregular and upward projections of connective tissue. This is named for its fingerlike projections called papilla, that extend toward the epidermis and contain either terminal networks of [blood](https://en.wikipedia.org/wiki/Blood) [capillaries](https://en.wikipedia.org/wiki/Capillaries) or tactile [Meissner's corpuscles](https://en.wikipedia.org/wiki/Meissner%27s_corpuscles)

**Basement membrane:**

 it is an interface between epithelium and connective tissue. It is 1-2 micrometer structureless layer. the basement membrane is composed of two layers, the [basal lamina](https://en.wikipedia.org/wiki/Basal_lamina) and the underlying layer of [reticular connective tissue](https://en.wikipedia.org/wiki/Reticular_connective_tissue)

**Rete ridges**:

these are epithelial ridges that interdigitate with connective tissue papilla. These are the epithelial extensions that project into the underlying connective tissue in both [skin](https://en.wikipedia.org/wiki/Epidermis) and [mucous membranes](https://en.wikipedia.org/wiki/Mucous_membrane).

 E) Why is the name specialized given to specialized mucosa?

**Answer:**

Although it is masticatory mucosa by function but due to its high extensibility and lingual papillae, it is classified as “specialized mucosa

**Q2**. A) Enumerate layers of keratinized surface epithelium in orderly manner.

1. Most of the oral mucosal surface is lined by non keratinized stratified squamous epithelium except gingiva, hard palate and dorsal surface of the tongue where the epithelium is keratinized.
2. The keratinized cells have no nuclei and the cytoplasm is displaced by large numbers of keratin filaments.
3. Keratinized epithelium is associated with masticatory function and have four layers of cells

**layers of keratinized surface epithelium**

**1. Stratum Basale**

**2. Stratum Spinosum**

**3. Stratum Granulosum**

**4. Stratum Corneum**

 B) Which two layer comprises Stratum Germinativum?

**Answer:**

The stratum germinativum is a Latin term, which translates to germinative layer. This layer is composed of germinative (or basal) keratinocytes. These [cells](https://www.biologyonline.com/dictionary/cells) are actively dividing to provide new [cells](https://www.biologyonline.com/dictionary/cells) to replenish lost [skin](https://www.biologyonline.com/dictionary/skin) from normal [shedding](https://www.biologyonline.com/dictionary/shedding). Thus, they provide the keratinocytes (prickle cells) of the stratum spinosum, which later migrate through the other layers to the topmost layer (stratum corneum) of the skin. Other cellular elements found in the stratum germinativum are [melanocyte](https://www.biologyonline.com/dictionary/melanocyte)s (pigment-producing cells), [Langerhans cell](https://www.biologyonline.com/dictionary/langerhans-cell)s (immune cells), and [Merkel cell](https://www.biologyonline.com/dictionary/merkel-cell)s (touch receptor cells).

 C) what is meant by pyknotic nucleus and where it is present?

**Answer:**

Pyknotic nuclei are small condensed nuclei from apoptotic cells. They are present in Parakeratinized epithelial cells

**Q3**. A) Define Extraction and its types.

**Answer:**

Tooth extraction is a dental procedure which removes or pulls out a tooth from its alveolus or dental socket in the alveolar bone. When the risk of bacteria spreading and affecting other teeth turns high, the best option left to ensure oral health is a tooth extraction.

**Types of Tooth Extraction**

There are two kinds of tooth extraction – simple and surgical.

* A**simple extraction also known as Intra-Alveolar** is commonly performed by general dentists on a fully erupted or noticeably visible tooth in the mouth. The dentist uses an elevator to loosen the tooth and a forceps to remove it.
* **surgical extraction or Trans Alveolar** wherein a small incision is made into the gums to remove a tooth which has broken off at the gum line or has not come out. General dentists can also perform a surgical extraction.

 B) A patient comes to your clinic with carious tooth which cannot be restored by endo treatment. You decided to go for extraction. In pre operative radiograph you observed severely curved and thick roots embedded in bone.

 a) Which type of extraction would you do in such case?

**Answer:**

we will do surgical extraction

 b) Give explanation, why would you choose this type of extraction.

**Answer:**

We choose surgical extraction because of the nature of the disease and its attachment to vital parts of the tooth. And using surgical extraction the tooth can be easily removed with less damage to the gums**.**

 C) Give 2 indications and 2 contraindications of closed/forcep extraction.

**Answer:**

**Indications**

1. severe caries

2. severe periodontal diseases

**Contraindications**

***A. SYSTEMIC:***

 1. Severe uncontrolled DM

 2. Severe MI

***B. LOCAL:***

1. Tumor
2. 2. Sever infection at the extraction site

Q4. A) what is curettage and why is it important after extraction?

**Answer:**

**curettage**is a technique used to improve dental healthcare by removing all germs located on the inner part of the teeth and the gums.

Dental curettage is the removal of diseased tissue from the mouth and gums

**Importance**

Dental curettage is a professional complete cleaning of the [gums and teeth.](https://www.propdental.es/en/blog/dentistry/teeth-and-gums-care/) It is often recommended when patient suffer from some kinds of gum diseases. These **periodontal pathologies** affect the gum tissues, the dental roots and bones and sometimes even provoke dental loss of one or more pieces. When periodontal disease is advanced and turns into periodontitis, the situation is then not possibly reversible because the bone are irremediably affected. A curettage performed under local anesthesia by some orthodontist or periodontist is then necessary. It is also a precautionary method to restrict infection from spreading.

 B) After how many days of extraction, you will remove stitch?

**Answer:**

after 7-10 days of extraction the stitches will be removed

 C) Write the steps of stitch removal in your own words.

**Answer:**

 In most cases, on the same day that your oral surgery is performed, your dentist's staff will schedule a return visit for you for suture removal. The [timing of this appointment](https://www.animated-teeth.com/tooth_extractions/a-sutures-stitches.htm#time.required) can vary depending on the specifics of your procedure. You'll simply need to follow through with the instructions you are given.

**1) An anesthetic is not usually administered.**

The process of removing stitches can be expected to be quite painless. And since that's the norm, it's rare that a dentist will administer an anesthetic beforehand.

**2) The area will be cleansed with an antiseptic.**

As a first step, your dentist will clean the tissue in the region where your stitches have been placed.

If accessible and practical, they may dab or wipe the area with a piece of gauze that's been moistened with hydrogen peroxide solution.

**3) The suture will need to be lifted up**.

Since your dentist will need to cut the suture thread, they'll first need to lift your stitch up off the tissue it's lying on, just far enough that there's room for the tip of their scissors.

They'll probably use a pair of cotton pliers (dental tweezers) for this task

**4) The suture thread will be clipped.**

Using a pair of fine-pointed scissors, your dentist will cut the raised suture.

Instead of right in the middle, they'll clip the thread down close to the surface of your gums. (Doing so minimizes the length of contaminated suture thread that will ultimately need to be pulled through your tissues.)

**5) The suture is pulled out.**

Now cut, your dentist will grab the free end of the thread with their cotton pliers and pull it out of your gum tissue.

* They'll make sure to grab the end that has the suture's knot, thus ensuring that it's not the knot end that gets pulled (ripped) through your tissues.
* The motion they'll use is a steady gentle pull. The loose end of the thread will pull on through your gums quite easily.
* As they pull, they'll pull in a direction toward the wound.

(Pulling up or away from the wound has the potential to place tension on it, which might result in reopening it.)

* Your dentist might further favor your wound by supporting it with their fingers, gauze or a dental instrument as they pull the suture thread out.

**6) this process is repeated until all of the stitches are removed**

* In the case of interrupted stitches (those that are individually placed and tied off), the above steps are repeated for each suture still left to remove.
* As mentioned above, the goal is always to pull as little suture thread through your tissues as possible. So in the case of continuous sutures (a series of stitches tied off using a single knot), each loop will be cut individually with that section then being removed.

**7) the area is then cleansed with antiseptic**

Q5. A patient comes to your clinic 2 days after extraction with severe throbbing pain in his socket which radiates to ear and eye. The patient also complaints of bad breath and foul taste in the mouth. There is empty space in extraction site with visible bone.

1. What is your diagnosis?

**Answer:**

Alveolar osteitis also called Dry socket

1. What is the reason for empty space in extraction site?

**Answer:**

Disintegration or loss of blood clot or traumatic extraction

1. How does this condition occur?

**Answer:**

After extraction of a tooth

1. What management will you provide to patient

**Answer:**

Flushing the socket, Medicated dressing Alveogel, pain killers for pain

Q6. A) After extraction, what post operative instructions will you give to patient?

**Answer:**

After extraction the following instrucions are mostly advised to patient immediately after surgery

**Care immediately following surgery:**

* Keep pressure on the gauze pad that your doctor placed over the surgical area by gently biting down. Dampen the gauze sponge with water if it begins to dry out. Try to maintain constant pressure in intervals of 45-60 minutes, repeating as often as needed, or until bleeding lessens.  Change the gauze as needed.
* Keep your head elevated and try to lower your activity level as much as possible.
* 48 hours after surgery, rinse mouth with warm salt water every 1-2 hours. Avoid using any mouthwash containing alcohol as it can irritate the wound.
* Keep your mouth clean by brushing areas around the surgical site, but be sure to avoid sutures. Touching the wounded area in any fashion should be prevented.
* Use ice packs to control swelling by placing them on facial areas near extraction.
* Take all prescribed medications accordingly. If any itching or swelling occurs, contact the practice immediately, or go to the nearest emergency room.
* Try to eat softer foods, preferably high in protein.
* Keep your body hydrated by drinking plenty of fluids, but do not drink through a straw for the next 5-7 days.
* If you are a regular tobacco user refrain from smoking for the next 3-4 days as smoking increases your chances of getting a dry socket as well as an infection.

For the first 24 hoursfollowing surgery do not:

1. **Smoke** (The longer you avoid smoking, the better your healing will progress)
2. **Drink through a straw** (avoid carbonated beverages)
3. **Blow your nose** (If your sinus was involved in the procedure, you should avoid blowing your nose or playing a wind musical instrument for one week)
4. **Brush or rinse** (From next day onwards you may brush your teeth, but avoid brushing near the surgical site for 3 days.
5. **Rinse with lukewarm saline water** beginning 3 days after surgery
6. Spit excessively
7. Drink hot liquids
8. Chew from same side of mouth
9. Eat hard, crunchy foods such as chips or nuts (You should have soft foods on the day of surgery and the day following surgery)

After your tooth has been extracted, healing will take some time. Within 3 to 14 days, your sutures should fall out or dissolve. For sutures that are non-resorbable, your doctor will schedule a follow-up appointment to remove the stitches for you. Your tooth’s empty socket will gradually fill in with bone over time and smooth over with adjacent tissues.

**Possible complications after a tooth extraction**

**Bleeding**– Bleeding after a tooth extraction is entirely normal. A pinkish tinted saliva and subtle oozing is fairly common during the first 36 hours. If bleeding gets excessive, control it by using dampened gauze pads and biting down to keep pressure on the area. As an alternative to gauze pads, a moistened tea bag can be used, as the tannic acid helps blood vessels contract. Apply pressure to the gauze or tea bag by gently biting down for 30 minutes. Please remember that raised tempers, sitting upright, and exercise can all increase blood flow to the head, which can cause excess bleeding. Try to avoid these as much as possible. If your bleeding does not reduce after 48 hours, please call the practice.

**Bone sequestra (dead tooth fragments)** – Some patients have small sharp tooth fragments that were unable to be completely removed during surgery. During the recovery period, these dead bone fragments, or bone sequestra, slowly work themselves through the gums as a natural healing process. This can be a little painful until the sequestra are removed so please call our practice immediately if you notice any sharp fragments poking through the surgery site.

**Dry socket**– In the days that follow your tooth extraction, pain should gradually subside. Rarely, patients report that pain increases to a throbbing unbearable pain that shoots up towards the ear. Often this is a case of dry socket. Dry socket occurs when the blood clot becomes irritated and ousted before healing is complete. Food and debris can then get into the socket causing irritation. Tobacco users and women taking oral contraceptives are at a higher risk of getting dry socket. Dry socket is not an infection but does require a visit to our office. If you think you may be suffering from dry socket, please contact the practice immediately.

**Lightheadedness**- Because you may have been fasting prior to surgery, your blood sugar levels may be lower than normal. Until your body has had the chance to catch up and process some sugars, you should remember to stand up slowly when getting up from a relaxed position. For somewhat immediate relief, try eating something soft and sugary, stay in a relaxed position, and reduce the elevation of your head.

**Numbness**– Many patients report still feeling numb hours after their tooth extraction procedure. An extended lack of feeling around the mouth is normal and can last 10-12 hours after surgery.

**Swelling**– Swelling should subside almost entirely within 10 days after surgery. Immediately following your tooth extraction, apply an ice pack to the facial areas near the extraction. Continue using the ice in 15 minute intervals for the first 36 hours. After 36 hours, ice will no longer be beneficial in reducing swelling and moist heat should be used instead. To decrease swelling, apply a warm damp cloth to the sides of your face.

**Trismus (difficulty opening and closing mouth)** – If you experience a sore jaw and difficulty chewing or swallowing, do not be alarmed. Occasionally patients’ chewing muscles and jaw joints remain sore 3-5 days after surgery. This soreness can also make it difficult to open and close your mouth. Soreness should eventually subside.

 B) Why do we give post operative instructions?

**Answer:**

Postoperative care refers to any of your needs after a surgery. ... Having home care with your post operative needs is important primarily because of the complications that could occur. Most doctors will warn you for complications that could occur, but this includes blood clots, infection, or pain. Post operative instructions are given to avoid secondary complications as well. To avoid infections to root canals and other parts of extracted tooth. If instructions are followed the patient will recover soon. The patient will be able to resume normal activities. We give post operative instructions to aware the patient of all possible complications and better healing. These instructions are basically the precautionary measure patient has to take care of during healing process.