SECTION 2

Diagnostic and Descriptive Terminology

Objectives:

- Recognize, define, and use terms that describe oral lesions and help in the diagnostic process:
  a. Colored or textured lesions that can occur in the skin and oral mucosa
  b. Lesions that denude epithelium
  c. Lesions associated with inflammatory reactions
  d. Clefts and cavities within skin and oral mucosa
  e. Solid raised lesions in the skin and oral mucosa
  f. Fluid-filled lesions in the skin and oral mucosa
- Recognize clinical features of the skin and mucosa associated with infection and inflammatory disease.
- Recognize clinical features of benign and malignant disease.
- Use the descriptive terminology from this section to accurately document extraoral and intraoral findings in a clinical setting.

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Macule (Figs. 8.1 and 8.2) is a small confined area of epidermis or mucosa distinguished by color from its surroundings. By definition, it is less than 1 cm in diameter. The **macule** may appear alone or in groups as a red, blue, brown, or black stain or spot. It is neither elevated nor depressed. A macule may represent a normal condition, a variant of normal, or local or systemic disease. The term *macule* would be used to clinically describe the following conditions: oral melanotic macule, ephelis, amalgam, India ink or pencil tattoos, and focal argyrosis. The color and shape of the macule aid in the diagnosis. Conditions that appear as macules are discussed in detail under "Pigmented Lesions" (Figs. 77.1–79.8).

Patch (Figs. 8.3 and 8.4) is a circumscribed area that is larger than the macule and differentiated from the surrounding epidermis by color, texture, or both. Like the macule, the **patch** is neither elevated nor depressed. Focal argyrosis, lichen planus, mucous patch of secondary syphilis, and snuff dipper's patch represent patchlike lesions that may be seen intraorally. Conditions that appear as patches are discussed in detail under "White Lesions" (Figs. 68.1–70.8), "Pigmented Lesions" (Figs. 77.1–79.8), and "Sexually Transmissible Conditions" (Figs. 91.1–93.8).

Erosion (Figs. 8.5 and 8.6) is a clinical term that describes a soft tissue lesion in which the skin or mucosa is denuded (i.e., the epithelium is worn away or destroyed). An **erosion** is moist and slightly depressed and often results from a broken vesicle, epithelial breakdown, or trauma. In the eroded area, the epithelium is lost; however, the basal cell layer (layer above the connective tissue or dermis) is preserved. Thus, it represents a shallow area where only a few layers of the epithelium are lost. Healing rarely results in scarring because the basal layer of the epithelium remains intact. Pemphigus, erosive lichen planus (desquamative gingivitis), and erythema multiforme are diseases that produce mucocutaneous erosions. Conditions that appear as erosions are discussed in detail under "Vesiculobullous Lesions" (Figs. 83.1–87.8).

Ulcer (Figs. 8.7 and 8.8) is a craterlike lesion of the skin or oral mucosa. It is the term used to describe an uncovered wound of cutaneous or mucosal tissue that exhibits gradual tissue disintegration and necrosis. The border of a mucosal **ulcer** is often round but can be irregular. Ulcers are deeper than erosions, extending below the basal layer of the epithelium into the dermis (connective tissue). Scarring may follow healing of an ulcer. Ulcers may result from trauma; aphthous stomatitis; infection by viruses, such as herpes simplex, variola (smallpox), and varicella-zoster (chickenpox and shingles); cancer; or granulomatous disease. Ulcers are usually painful and often require topical or systemic drug therapy for effective management. Conditions that appear as ulcers are discussed in detail under "Vesiculobullous Lesions" (Figs. 83.1–87.8) and "Ulcerative Lesions" (Figs. 88.1–90.8).

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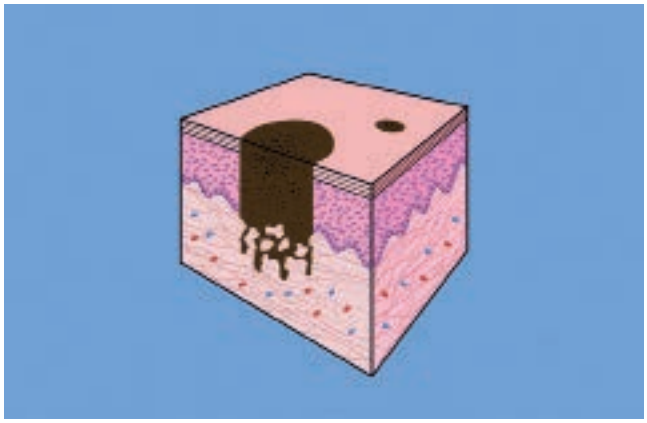


Fig. 8.1. Macule: nonraised area altered in color.



Fig. 8.2. Oral melanotic macule on the lip.

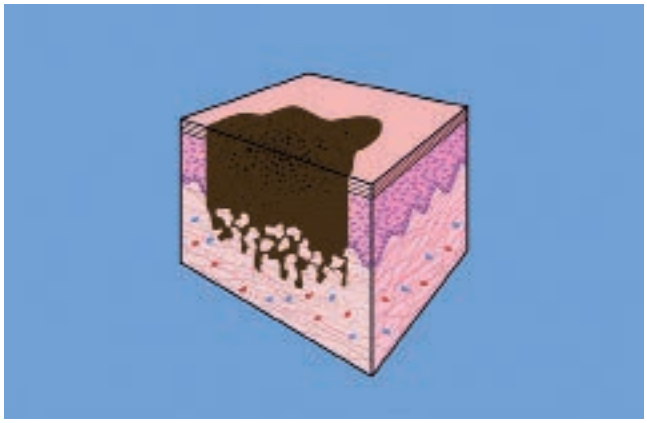


Fig. 8.3. Patch: pigmented area larger than a macule.



Fig. 8.4. Patch: amalgam tattoo after retrograde amalgam.

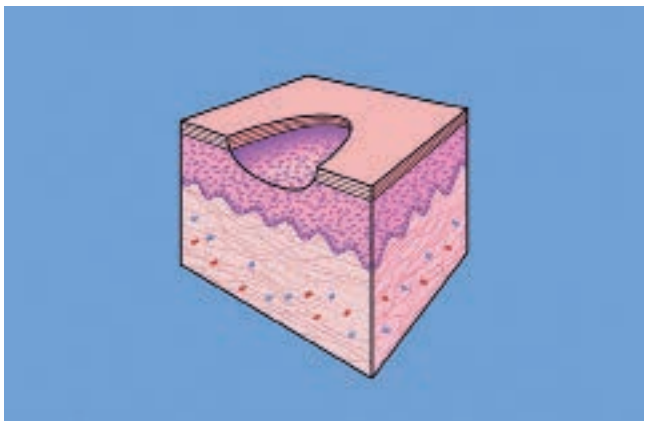


Fig. 8.5. Erosion: denudation above basal layer of epithelium.



Fig. 8.6. Erosion: erosive lichen planus on palatal gingiva.

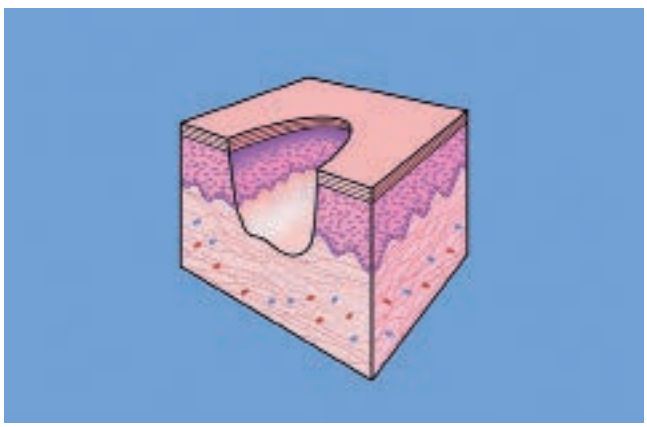


Fig. 8.7. Ulcer: denudation below basal layer of epithelium.



Fig. 8.8. Traumatic ulcer on lateral tongue border.

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Wheal (Figs. 9.1 and 9.2) is a raised area of localized tissue swelling (edema). This smooth-surfaced papule or plaque results from acute extravasation of serum into the superficial dermis. A **wheal** is generally pale red, pruritic, and of short duration. By definition, they are only slightly raised and vary in size. While they can appear as a single entity, they more often appear in numbers (wheals) and most commonly in persons with allergies. The wheal develops as a result of histamine release from mast cells or activation of the complement cascade. Wheals are a sign of an allergic reaction that develops shortly after insect bites, consuming a particular food, or mechanical irritation (such as that occurring in patients with dermatographia). They are often very itchy. Conditions that appear as wheals are discussed in detail under "Allergic Reactions" and "Vesiculobullous Lesions" (Figs. 83.1–87.8).

Scar (Figs. 9.3 and 9.4) is a permanent mark or cicatrix remaining after a wound heals. A **scar** is a visible sign of wound repair and indicates a previous disruption in the integrity of the epidermis and dermis and healing of epithelium with fibrous (collagen connective) tissue. Scars are infrequently found in the oral cavity because oral tissue is elastic and less prone to scar formation than skin. When they do occur, they may be of any shape or size. They are distinct from the adjacent tissue. The color of an intraoral scar is usually lighter than that of the adjacent mucosa. Histologically, they are more dense than the adjacent epithelium, lack sweat (or salivary) glands, and have fewer blood vessels. Oral (i.e., periapical) surgery, burns, or intraoral trauma may result in a scar. Scars are discussed in detail under "White Lesions" (Figs. 69.3–69.6).

Fissure (Figs. 9.5 and 9.6) is a normal or abnormal linear cleft or furrow in the epidermis (skin or mucosa) that affects the tongue, lips, and perioral tissues. The presence of a **fissure** can indicate a condition representing a variant of normal or disease. Disease-associated fissures result when pathogenic organisms infect a fissure, causing pain, ulceration, and inflammation. Fissured tongue is an example of a variation of normal that is associated with dry mouth, hyposalivation, and dehydration. Angular cheilitis and exfoliative cheilitis are examples of fissures associated with disease, specifically infection with *Candida albicans*.

Sinus (Figs. 9.7 and 9.8) The term **sinus** has two meanings. A common meaning of sinus is a normal recess or cavity, such as the frontal or maxillary sinus. The term is also used to describe an abnormal dilated tract, channel, or fistula that leads from a suppurative cavity, cyst, or abscess to the surface of the epidermis. An abscessed tooth often produces a sinus tract that travels from the infected root apex to the clinically evident parulis, which is the terminal end of the tract. In this clinical situation, gutta-percha points can be deeply placed into the tract and a radiograph taken. The nonvital tooth is identified by locating the tip of the gutta-percha point adjacent to the nonvital root apex. Actinomycosis is a condition characterized clinically by several yellow sinus tracts exiting onto the mucosa or skin surface.

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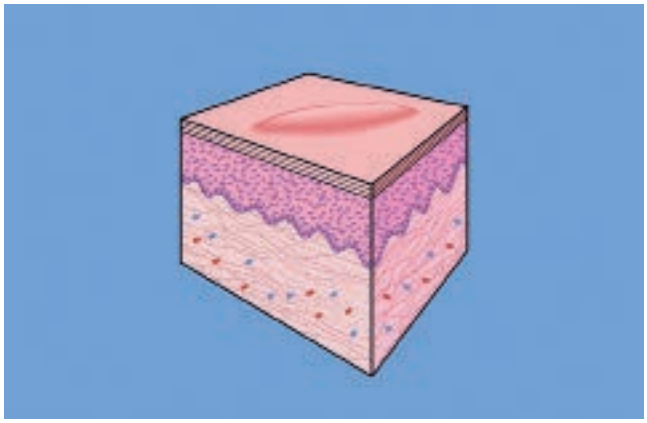


Fig. 9.1. Wheal: serum-filled papule or plaque.



Fig. 9.2. Wheal: dermatographism after rubbing the skin.

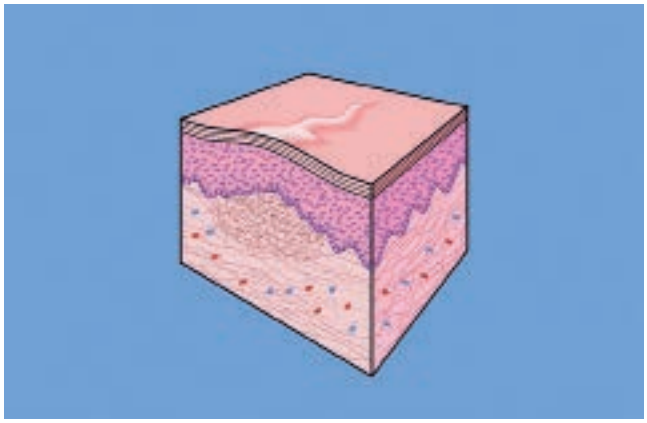


Fig. 9.3. Scar: permanent mark from wound.



Fig. 9.4. Scar: fibrotic tissue as a result of trauma.

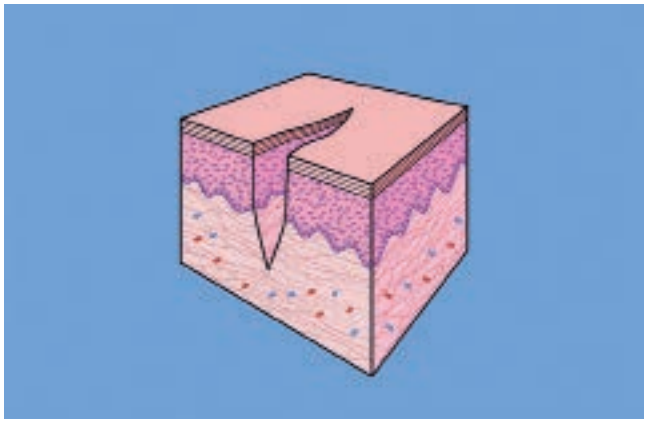


Fig. 9.5. Fissure: a linear crack in the epidermis.



Fig. 9.6. Fissure: fissured tongue, a variant of normal.

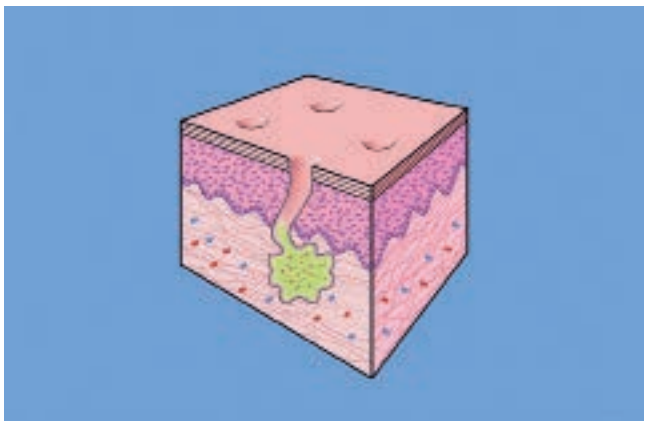


Fig. 9.7. Sinus: a recess, cavity, or dilated tract.

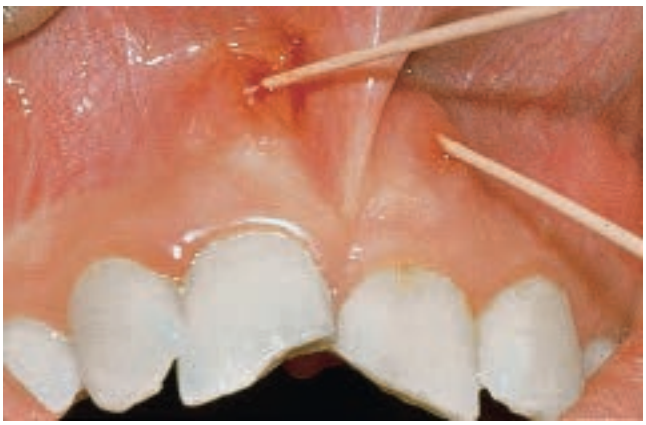


Fig. 9.8. Sinus tracts exiting from nonvital incisors.

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Papule (Figs. 10.1 and 10.2) is a small, superficial, elevated, solid lesion or structure that is less than 1 cm in diameter. A **papule** may be of any color and may be attached by a stalk or firm base. Papules often represent a benign or slow-growing lesion that is caused by infection, inflammation, hyperplasia, or neoplasia. Common examples of benign lesions appearing as papules include condyloma acuminatum, parulis, and squamous papilloma. Basal cell carcinoma, a slow-growing skin cancer, can also appear as a papule. Conditions that appear as papules are discussed in the section on "Papulonodules" (Figs. 82.1–82.8).

Plaque (Figs. 10.3 and 10.4) is a flat, solid, raised area of the skin or mucosa that is greater than 1 cm in diameter. Although essentially superficial, a **plaque** may extend deeper into the dermis than a papule. The edges may be sloped, and sometimes, keratin proliferates along the surface (a condition known as lichenification). Lichen planus, leukoplakia, or melanoma may initially appear as a plaque. Lichen planus, a plaque-producing disease, is discussed under "Red and Red-White Lesions" (Figs. 74.1–74.8). As with many medical-dental words, *plaque* has more than one definition. In dentistry, dental plaque is the biofilm of bacteria that builds up on teeth. Dental plaque can be located supra- or subgingivally, and the type of bacteria in plaque varies by location.

Nodule (Figs. 10.5 and 10.6) is a solid and raised lump or mass of tissue that has the dimension of depth. Like a papule, a **nodule** is less than 1 cm in diameter; however, a nodule extends deeper into the dermis. The nodule can be detected by palpation. The overlying epidermis is usually nonfixed and can be easily moved over the lesion. Nodules can be asymptomatic or painful and usually are slow growing. Benign mesenchymal tumors, such as fibroma, lipoma, lipofibroma, and neuroma, often appear as oral nodules. Other examples of nodules are discussed under "Nodules" (Figs. 80.1–81.8).

Tumor (Figs. 10.7 and 10.8) is a term used to indicate a solid mass of tissue greater than 1 cm in diameter that has the dimension of depth. The term **tumor** is also used to represent a **neoplasm**—a new, independent, and abnormal growth of tissue with uncontrolled and progressive multiplication of cells that have no physiologic use. Tumors may be any color and may be located in any intraoral or extraoral soft or hard tissue. Tumors are classified as **benign**, **in situ**, or **malignant neoplasms**. Benign tumors grow more slowly and are less aggressive than malignant tumors. Benign tumors often appear as raised, rounded (circumscribed) lesions that have well-defined margins (clinically and radiographically). Benign tumors remain localized, do not metastasize, and do not transform into cancer. A condition that occurs in between benign and malignant neoplasms is *in situ neoplasia*, also known as **carcinoma in situ** or precancer. In situ neoplasm represents abnormal cells that are localized within one tissue and have a high probability of progressing onto cancer. Malignant tumors are comprised of numerous neoplastic cells that have enlarged dark-staining (hyperchromatic) nuclei. Malignant tumor cells are aggressive, invade adjacent tissues, and spread rapidly. Clinically and radiographically, malignant tumors often have ill-defined margins. Persistent tumors may be umbilicated or ulcerated in the center. The term *tumor* is often used to describe a benign tissue mass such as a neurofibroma, granular cell tumor, or pregnancy tumor. The term **carcinoma** is reserved for malignant cancers/neoplasia of epithelial tissue (Figs. 90.3 and 90.4). The term **sarcoma** is reserved for a malignant neoplasm/neoplasia of embryonic connective tissue origin, such as osteosarcoma, a malignant neoplasm of bone. Malignancies destroy tissue by direct invasion and extension and by spread to distant sites by metastasis through blood, lymph, or serosal surfaces.

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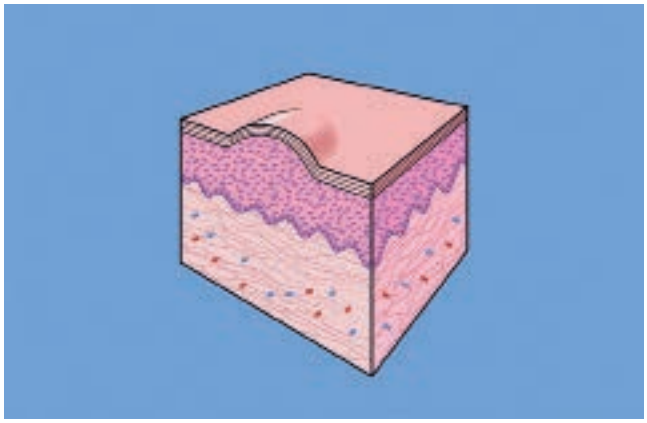


Fig. 10.1. Papule: elevated, solid lesion less than 1 cm wide.



Fig. 10.2. Papule: fibroepithelial polyp from chronic irritation.

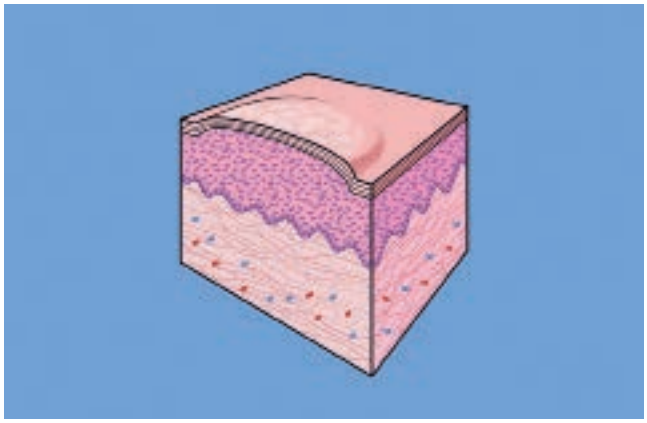


Fig. 10.3. Plaque: flat, raised area greater than 1 cm in diameter.

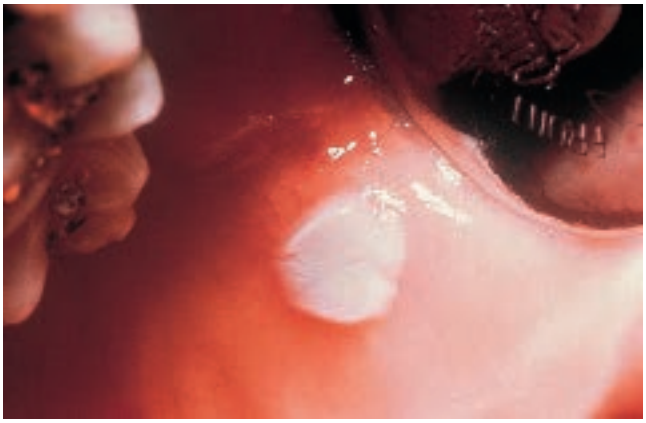


Fig. 10.4. Plaque: leukoplakia owing to clasp of appliance.

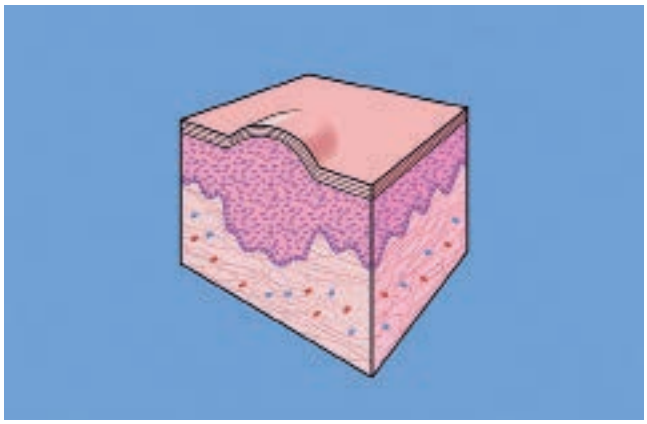


Fig. 10.5. Nodule: deep and raised mass less than 1 cm wide.



Fig. 10.6. Nodule: irritation fibroma at commissure.

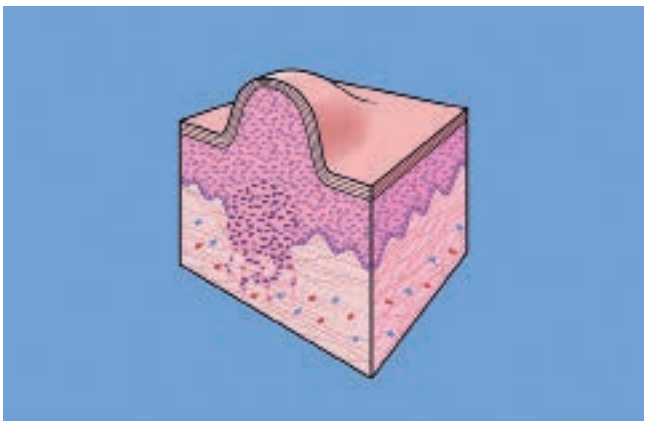


Fig. 10.7. Tumor: deep and solid mass greater than 1 cm wide.



Fig. 10.8. Tumor: squamous cell carcinoma of the tongue.

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Vesicle (Figs. 11.1 and 11.2) is a small, fluid-filled elevation (blister) in the epidermis (skin or mucosa). They are often the size of a pin but, by definition, extend up to 1 cm in diameter. The fluid of a **vesicle** generally consists of lymph or serum but may contain blood and infectious agents. The epithelial lining of a vesicle is thin and will eventually break down, thus causing an ulcer and eschar (surface slough). Vesicles are a common result of allergic reactions or inflammation caused by viral infections, such as herpes simplex, herpes zoster, chickenpox, and smallpox. In viral infections, the vesicle is laden with virus and is highly infectious. Conditions characterized by vesicles are discussed under "Vesiculobullous Lesions" (Figs. 83.1–83.8). The term *vesicle* is also used in cell biology to mean an organelle within a living cell that is enclosed by a lipid bilayer member and used to transport materials.

Pustule (Figs. 11.3 and 11.4) is a circumscribed elevation filled with pus—a purulent exudate consisting of a mixture of inflammatory cells and liquid—resulting from an infection. **Pustules** are small, less than 1 cm in diameter, and may be preceded by a vesicle or papule. They are creamy white or yellowish and are often associated with acne—an epidermal pore (i.e., pimple) or inflamed sweat gland. Within the mouth, a pustule is represented by a pointing abscess or parulis. Herpes zoster also produces pustules that eventually ulcerate and cause intense pain. See the discussions under "Localized Gingival Lesions" (Figs. 50.1 and 50.2), "Caries Progression" (Fig. 33.8), and "Vesiculobullous Lesions" (Figs. 84.1–84.4) for examples of diseases that produce pustules.

Bulla (Figs. 11.5 and 11.6) is a fluid-filled blister greater than 1 cm in size. A **bulla** develops from the accumulation of fluid in the epidermal-dermis junction or a split in the epidermis. Accordingly, the surface is smooth and dome shaped and easily ruptured by the slightest of trauma. On the skin, they are commonly associated with burns, frictional trauma, and contact dermatitis and typically appear clear pink to red. When they occur as multiples and because of their size, bullae often represent a more severe disease than do conditions associated with vesicles. Intraoral and extraoral bullae are commonly seen in pemphigus, pemphigoid, Stevens-Johnson syndrome, and epidermolysis bullosa. These conditions are discussed under "Vesiculobullous Lesions" (Figs. 86.1–86.8).

Cyst (Figs. 11.7 and 11.8) is a closed sac lined by the epithelium (known as the capsule) located in the dermis, subcutaneous tissue, or bone. A **cyst** results from entrapment of epithelium or remnants of epithelium that grow to produce a cavity (the cavity portion is known as the lumen). Cysts range in diameter from a few millimeters to several centimeters. Aspiration of a cyst may or may not yield luminal fluid, depending on the nature of the cyst. Cysts that contain clear fluid appear pink to blue, whereas keratin-filled cysts often appear yellow or creamy white. Some of the many types of oral cysts are dermoid cysts, eruption cysts, implantation cysts, incisive canal cysts, lymphoepithelial cysts, mucus retention cysts, nasoalveolar cysts, radicular cysts, odontogenic keratocyst, dentigerous cyst, and the lateral periodontal cyst. Figure 11.8 demonstrates a gingival cyst, which is a peripheral variant of the lateral periodontal cyst. Bone cysts and conditions that resemble bone cysts are discussed under "Radiolucencies of the Jaws" (Figs. 36.1–39.8).

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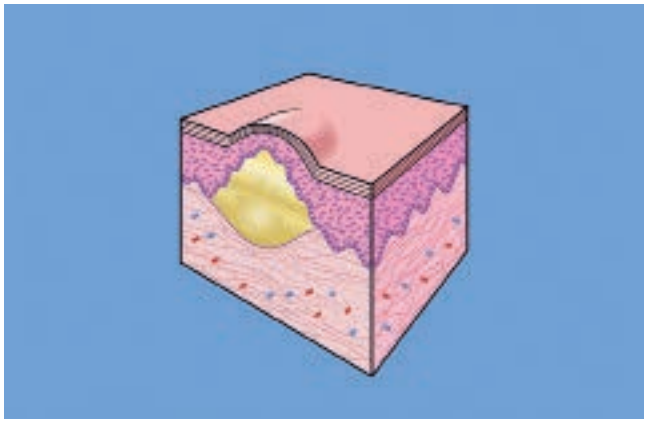


Fig. 11.1. Vesicle: small fluid-filled skin elevation.



Fig. 11.2. Vesicle: recurrent herpes simplex.

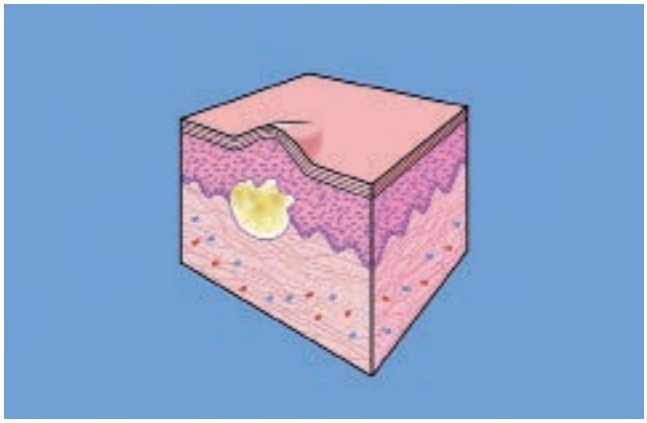


Fig. 11.3. Pustule: vesicle filled with purulent exudate.



Fig. 11.4. Pustule: pointing periodontal abscess.

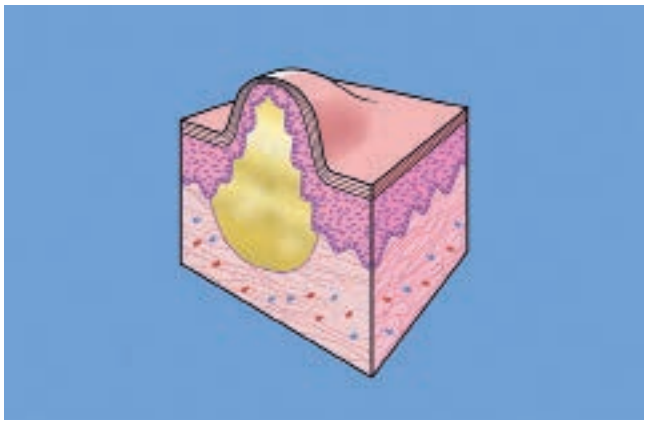


Fig. 11.5. Bulla: large fluid-filled mucocutaneous elevation.



Fig. 11.6. Bulla: bullous lichen planus—a rare finding.

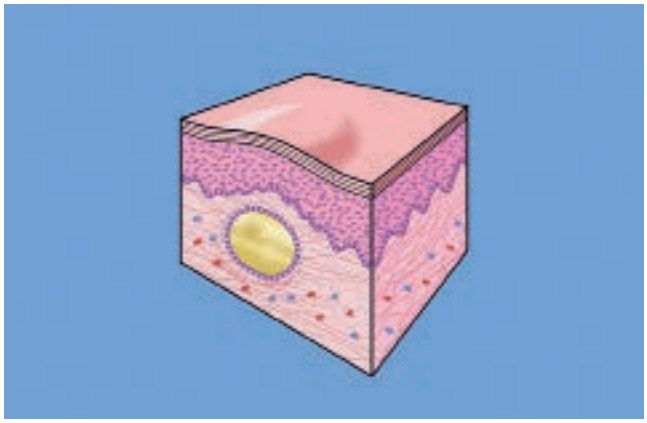


Fig. 11.7. Cyst: epithelial-lined cavity.



Fig. 11.8. Gingival cyst: variant of lateral periodontal cyst.

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Normal (Figs. 12.1 and 12.2) implies an anatomic site or tissue that lacks significant deviation from the average. In other words, **normal** agrees with the regular established characteristics of appearance and function for the representative population. Appearance includes color, shape, size, topography or architecture, consistency, and temperature; histologically, it also includes characteristics seen on stained tissue specimens. Normal function implies the cells, tissue, or organs are performing as they should. For example, normal oral mucosa appears light pinkish in color, is usually moist because of the presence of saliva, and can withstand the various normal functions of the mouth without injury or other abnormal change.

Hypotrophy and Atrophy (Figs. 12.3 and 12.4) **Hypotrophy** is the progressive degeneration of an organ or tissue caused by *loss in cell size*. The condition results when there is incomplete growth or maintenance of nutrition to a tissue or organ. Hypotrophy causes a diminution in the size of a tissue, organ, or part. **Atrophy** is similar in meaning to hypotrophy but is reserved for the degeneration of cells—often the result of persistent hypotrophy. Atrophy is also referred to as "wasting/withering away" or a decrease in size of a body organ or tissue that is due to disease, lack of nourishment, injury, or lack of use. Examples of atrophy follow. The oral mucosa may become thinned when atrophic candidiasis develops. Muscles, such as the tongue or the muscles of mastication (masseter, temporalis, internal and external pterygoid muscles), may become atrophic as a result of disuse (disuse atrophy); muscle disuse may follow a loss of motor innervation that is due to trauma or following a stroke. Following the extraction of one, several, or all of the teeth, the alveolar bone of the mandible and/or maxilla will usually atrophy (diminish in size), providing less support for prostheses or sufficient bone for an implant. Continued atrophy of the alveolar bone results in impingement on vital strictures, such as the mental nerve or the maxillary sinus.

Hypertrophy (Figs. 12.5 and 12.6) implies the enlargement or overgrowth of a cell, tissue, organ, or part because of an *increase in size of its constituents or cells* without cell division. **Hypertrophy** may be a reactive process that is due to increased function or is genetically induced. Muscle hypertrophy is typically seen in body building but can also occur in the muscles of mastication in persons who chronically clench or grind their teeth (bruxism). It is also seen in the mandibular condyle, which may increase in size as a result of hypertrophic arthritic or developmental changes. Reactive hypertrophy is seen in the contralateral salivary gland following the removal of the opposite salivary gland. Predetermined genetic change can be seen in bilateral hypertrophy of the coronoid process occurring in susceptible patients. Another example is seen in hemifacial hypertrophy as described in this text.

Hypoplasia (Figs. 12.7 and 12.8) refers to an underdeveloped tissue or organ that has *decreased in number of cells or the amount of substance they produce or secrete*. The term **hypoplasia** is used when there is underdevelopment of an organ or tissue such that it fails to reach its full adult size. One dental example is enamel hypoplasia. This condition is associated with insufficient amount of enamel or mineralization within the enamel. Amelogenesis imperfecta is a condition associated with several hypoplastic variations that cause the presence of too little enamel, which may be smooth or pitted. Another example is focal dermal hypoplasia (Goltz-Gorlin syndrome). In this syndrome, the skin of the face appears depressed in places because of hypoplasia of the dermis, which is the tissue layer immediately beneath the skin. Condylar hypoplasia is a third example. In this case, the condyle of the temporomandibular joint is small and often deformed as a result of trauma or congenital defects affecting the cartilaginous growth center.

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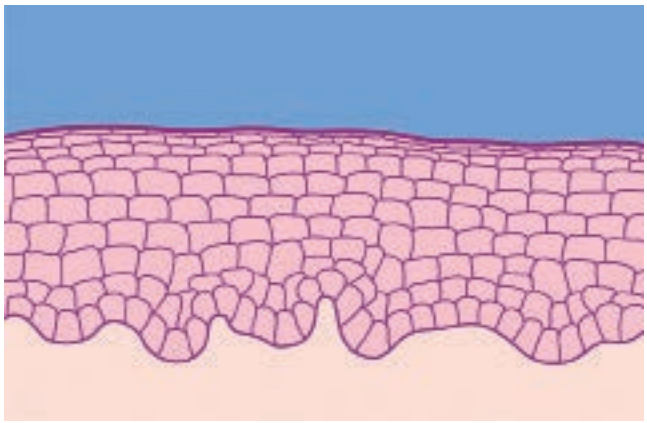


Fig. 12.1. Normal: appearance, number, size, architecture.



Fig. 12.2. Normal: soft tissues, gingiva, teeth, occlusion.

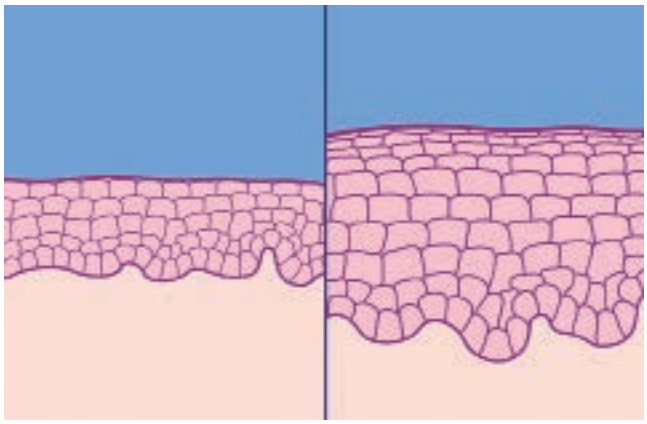


Fig. 12.3. Atrophy: decreased size of cells (*left*), normal (*right*).



Fig. 12.4. Atrophy: poststroke; tongue muscles atrophied.

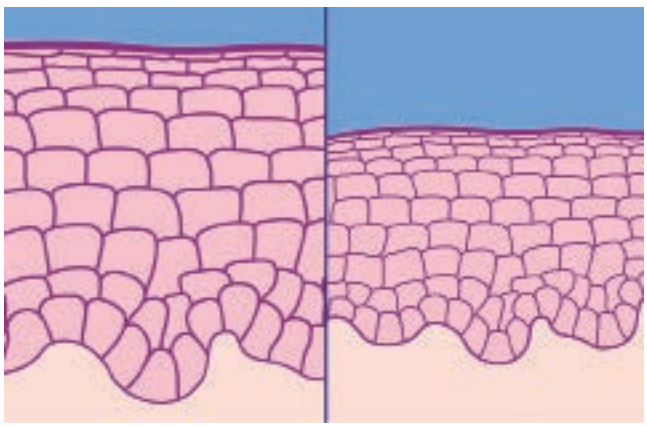


Fig. 12.5. Hypertrophy: increased size of cells (*left*), normal (*right*).



Fig. 12.6. Hypertrophy: tongue in facial hemihypertrophy.

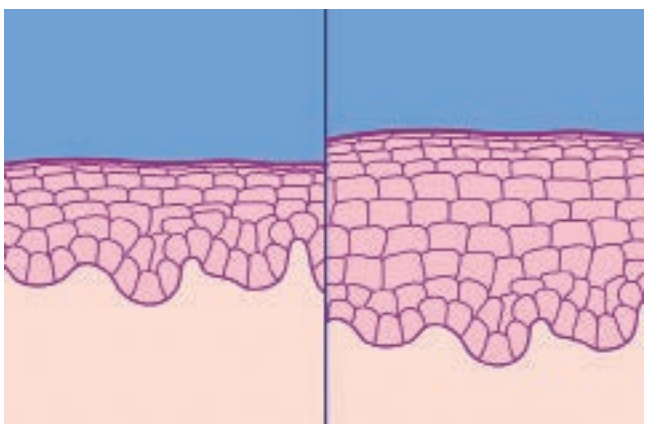


Fig. 12.7. Hypoplasia: decreased number of cells (*left*), normal (*right*).

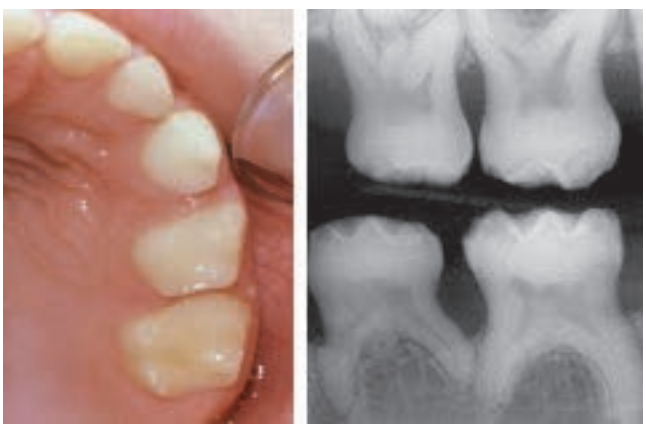


Fig. 12.8. Hypoplasia: amelogenesis imperfecta; hypoplastic enamel.

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Hyperplasia (Figs. 13.1 and 13.2) is an *increase in the number of normal cells* in a tissue or organ that results in increased volume or size of the tissue or organ. The term implies there is an abnormal multiplication of cells that are normal in appearance, arrangement, and architecture. **Hyperplasia** is usually a reactive process secondary to some stimulus or growth factors. Puberty is a physiological stimulus that increases the size of the breast and gonadal tissue. In the oral cavity, inflammatory papillary hyperplasia is a reactive tissue growth that develops beneath a denture. Clinically, this condition produces numerous papillary growths on the palate that represent squamous epithelium increased in size. Chronic hyperplastic pulpitis (a pulp polyp; Fig. 33.2) is another example of this condition.

Metaplasia (Figs. 13.3 and 13.4) is the *replacement of one adult cell type with that of another adult cell type* not normal for that tissue. **Metaplasia** often occurs as a form of adaptation to a stressful environment. One of the more common examples is the metaplastic change of respiratory columnar epithelium to squamous epithelium in response to the chronic irritation of cigarette smoking. In another example, necrotizing sialometaplasia, there is squamous (epithelial) metaplasia of the cells lining the ducts of accessory salivary glands of the posterior palate as a result of ischemic necrosis. This condition shows the following: the normal central lumen of the duct disappears and is replaced with cells that appear like small clusters of epithelium within the surrounding connective tissue. Another type of metaplasia is seen in scar tissue, which begins as dense connective tissue but undergoes metaplastic change to become calcified. Atherosclerotic plaque or blood clots (thrombi) within blood vessels can undergo metaplastic change and calcify.

Dysplasia (Figs. 13.5 and 13.6) means disordered growth and loss of the normal maturation of cells. **Dysplasia** implies an alteration in the size, shape, and architectural organization of adult cells in tissue (oral mucosa). These changes are often considered premalignant; however, dysplasia does not necessarily progress to cancer. The specific cellular changes seen in epithelial dysplasia include (1) an expansion of immature cells (that display prominent nucleoli, nuclear pleomorphism, hyperchromatic nuclei that are abnormally large for the size of the cell, increased and abnormal mitosis, multinucleation) and (2) decrease in number and location of mature cells. Clinically, dysplastic changes often appear as red, white, pigmented, and ulcerative lesions affecting the oral mucosa.

The term dysplasia is also used to describe a condition that manifests as an abnormality of development in susceptible persons. Some examples include anhydrotic ectodermal dysplasia, cleidocranial dysplasia, dentin dysplasia, hip dysplasia, and renal dysplasia. Fibrous dysplasia is another developmental condition in which normal bone is replaced by fibrous connective tissue, causing a weakening of the bone and a distortion of its shape and size. These patients may have endocrine gland problems and café au lait brown spots on the skin.

Carcinoma in situ is a term used to describe cancerous tissue limited to the epithelium that has not spread past the junction between the epithelium and the underlying connective tissue.

Carcinoma (Figs. 13.7 and 13.8) is a malignant neoplasm made up of epithelial cells (skin or mucosa) that can infiltrate the surrounding tissues and give rise to metastases (distant lesions). The malignant changes seen with **carcinoma** include increased cell numbers, variable cell size and shape, and abnormal cell architecture. Carcinomas are the most common form of oral cancer and clinically may appear as red, white, pigmented, or ulcerative lesions. The prognosis (chances for survival) becomes worse as the carcinoma is located farther back in the mouth. The most common type of carcinoma is squamous cell carcinoma; other types include verrucous carcinoma, often seen on the gingiva; mucoepidermoid carcinoma, occurring in the major and accessory salivary glands; and adenocarcinomas as observed in the maxillary sinus mucous lining. Basal cell carcinomas develop in the skin of the face (sun-exposed regions) and are locally destructive, but do not metastasize. **Metastasis** is a process by which carcinomas spread to distant sites generally via the lymphatics and sometimes via the bloodstream. The metastatic cells become established at distant sites—such as the liver, lungs, brain, kidneys, or jaw bones—and replace those tissues, ultimately causing them to fail functionally. Distant metastases decrease the likelihood of survival but can be successfully treated by methods that employ chemotherapy, bone marrow transplantation, and targeted drug and immune therapy. For carcinomas, early recognition and biopsy followed by timely initiation of treatment can be lifesaving.

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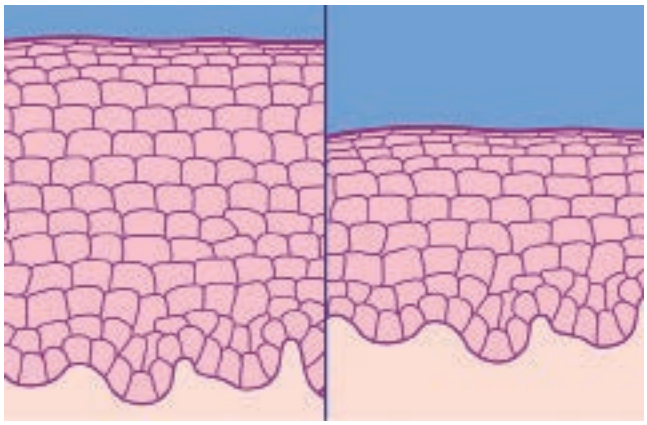


Fig. 13.1. Hyperplasia: increased number of cells (*left*), normal (*right*).

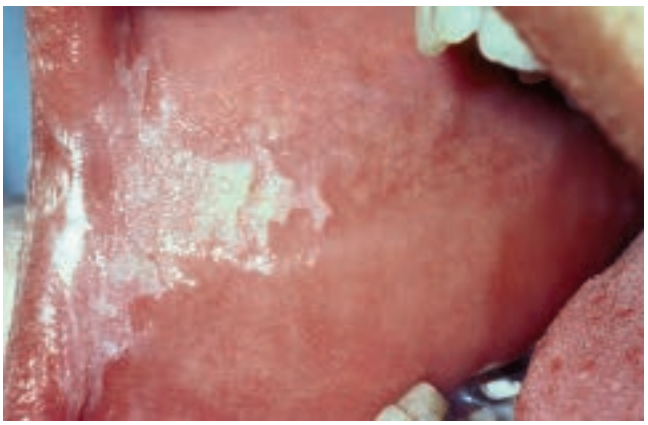


Fig. 13.2. Hyperplasia of surface cells as a result of cheek biting.

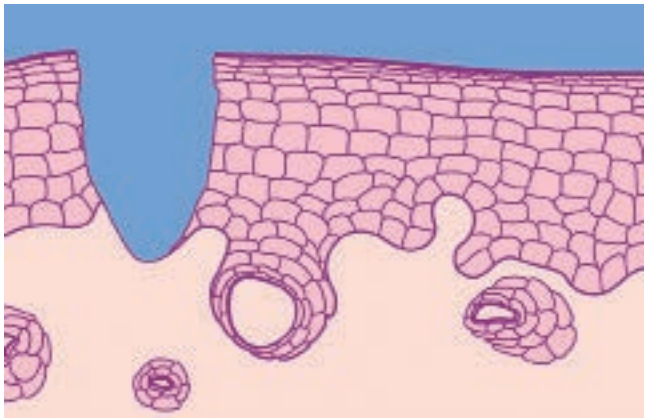


Fig. 13.3. Metaplasia: altered cell type, number, and architecture (*left*), normal (*right*).

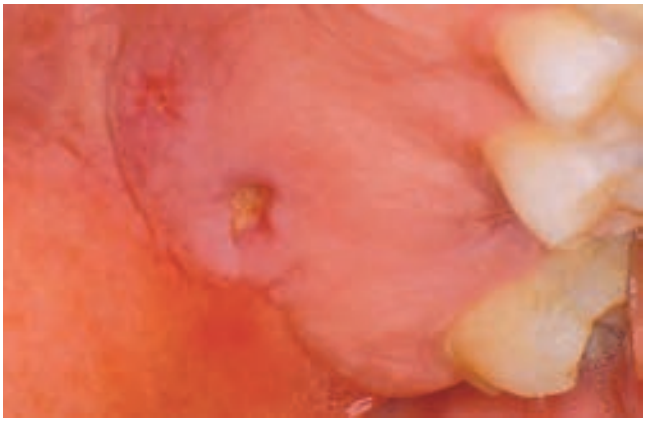


Fig. 13.4. Sialometaplasia: minor salivary gland duct cells altered.

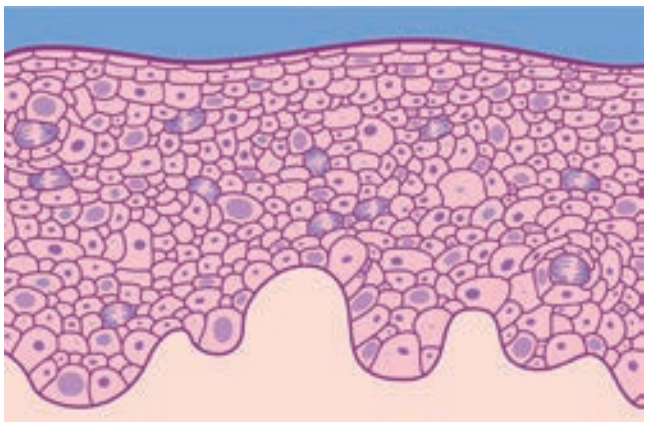


Fig. 13.5. Dysplasia: altered and premalignant cells.

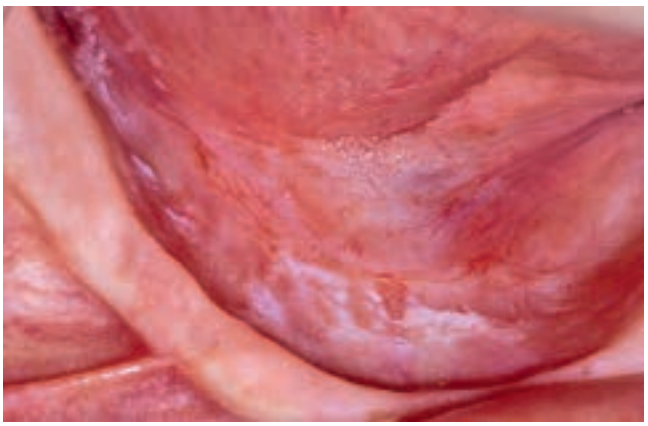


Fig. 13.6. Dysplasia: leukoplakia; epithelial dysplasia of floor.



Fig. 13.7. Carcinoma: abnormal, malignant, and invasive cells.

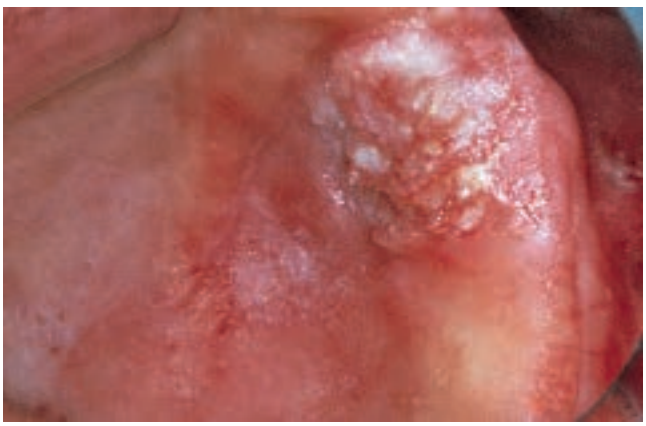


Fig. 13.8. Carcinoma of epithelial cells of palate and alveolar ridge.

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CASE 6. (FIG. 13.9)

This 53-year-old woman came to the dental clinic because of burning, painful gingiva of several months duration. An incisional biopsy was performed, and during the initial incision, the gingiva began to slough.



1. Describe the clinical findings.
2. Which term best describes this lesion?
   A. Fissure
   B. Vesicle
   C. Bulla
   D. Erosion
3. Is this a normal finding, a variant of normal, or disease?
4. How is this condition different from an ulcer?
5. Do you expect this condition to be symptomatic?
6. List conditions you should consider in the differential diagnosis, and note which condition is most likely the correct diagnosis.
7. Once this condition is brought under control, what precautions should be taken during periodontal debridement procedures?
8. How would you communicate with this patient?

CASE 7. (FIG. 13.10)

This young lady presents to your dental office with a sore tongue. She claims the lesion appeared 3 days ago, after partying with friends late into the night. She has had similar-appearing lesions under her tongue in the past, but this is the biggest lesion she has ever had. She is taking birth control pills and no other prescription medications. Her medical history form has no positive entries for any systemic diseases.



1. Describe the clinical findings. Include mention of the size, shape, color, surface, borders, and location.
2. How can you determine the size of the lesion from the findings presented?
3. What diagnostic and descriptive term best describes this lesion?
4. Do you expect this condition to be symptomatic? Why?
5. Is this a normal finding, a variant of normal, or disease?
6. True or false: This condition can be caused by subgingival calculus.
7. List conditions you should consider in the differential diagnosis for this condition, and note which condition is most likely the correct diagnosis.
8. What clinical features would help distinguish the conditions you listed in the differential diagnosis?
9. Which of the following should be considered with respect to periodontal maintenance therapy?
   A. It is okay to clean her teeth, as long as oral hygiene measures and food avoidance is discussed.
   B. It is okay to clean her teeth, just provide care to the contralateral side.
   C. Therapy should be provided in the affected quadrant because there is likely a cause-and-effect phenomenon.
   D. Therapy should be delayed until healing occurs and the patient is more comfortable.

Additional cases to enhance your learning and understanding of this section are available Online through the book's Navigate 2 Advantage Access site.

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