

Premalignant and malignant lesions of the oral mucosa

1-Hyperkeratosis (focal keratosis)

Is a microscopic term meaning increased thickness of the keratin layer of stratified squamous epithelium with no microscopic evidence of atypical epithelial cells.

Clinically

Hyperkeratotic lesions appear as white, rough, non-painful patches ;do not rub off.

They are often secondary to chronic irritation, such as biting, tooth irritation, or tobacco use

Hyperkeratotic lesions on surfaces that are normally **nonkeratinized** are potentially more serious and should be biopsied if they do not resolve if irritants are removed.

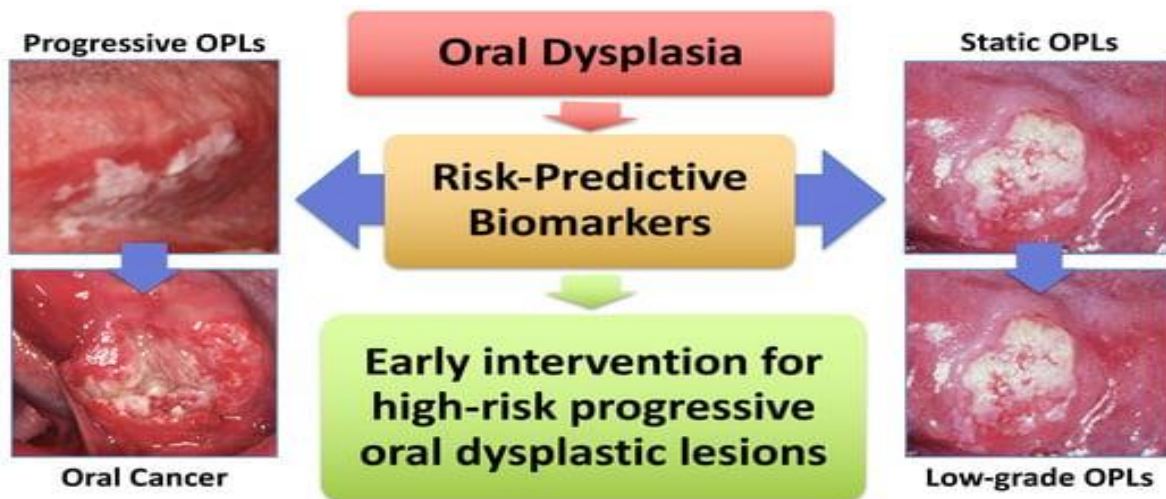
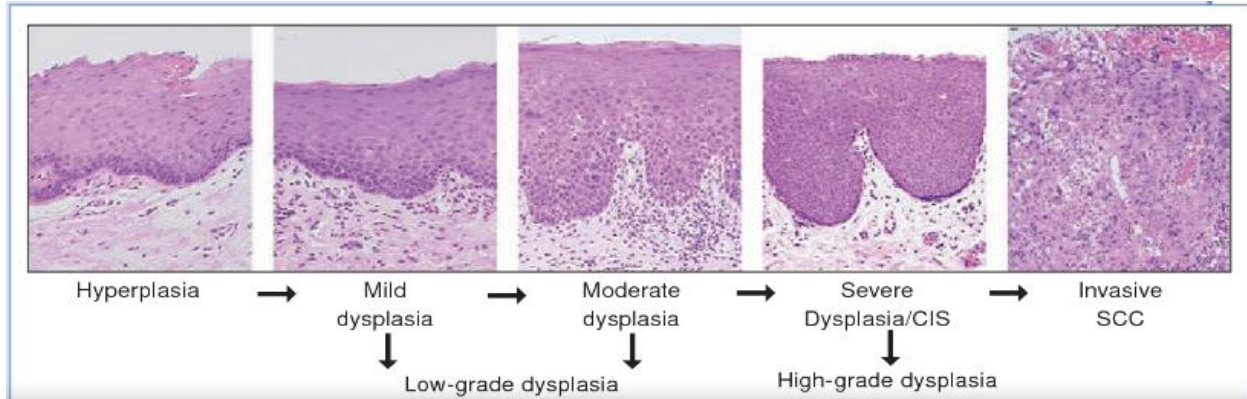
- Remember, however, that dysplasia, carcinoma *in situ*, and squamous cell carcinoma can occur on any oral mucosal surface.



Epithelial dysplasia

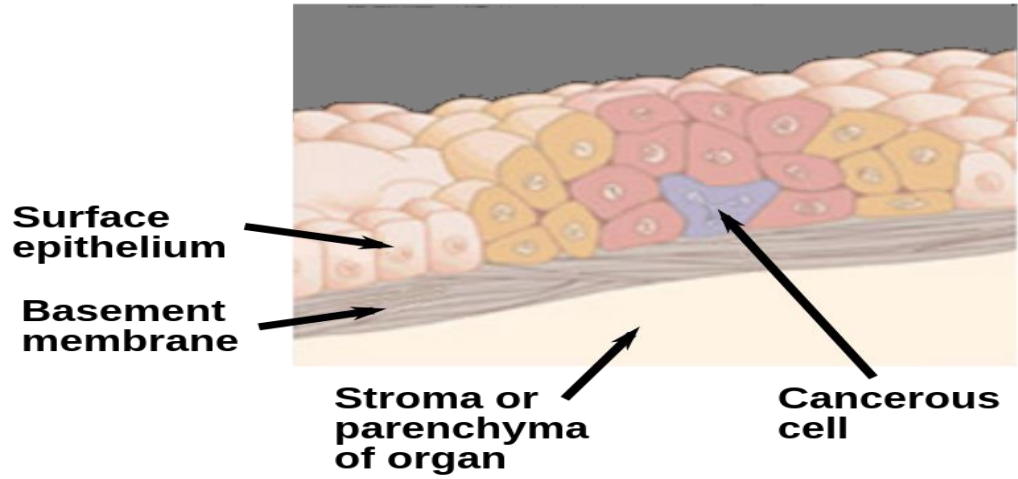
- Is atypical or abnormal growth of the stratified squamous epithelium lining a mucosal surface.
- Oral epithelial dysplasia is a spectrum of architectural and cytological epithelial changes caused by accumulation of genetic changes, and is associated with an increased risk of progression to squamous cell carcinoma
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- It is a diagnosis that must be made microscopically. These lesions appear clinically as white, rough, non-painful areas,
- or non-painful red patches (“erythroplakia” or “erythroplasia”),

- Dysplastic changes of oral keratinocytes **start in the basal and parabasal cell layers**, showing
 - hyperchromatism,
 - pleomorphism,
 - increased nuclear-to-cytoplasmic ratio,
 - large and prominent nucleoli,
 - increased mitotic activity, abnormal mitotic figures, and altered epithelial architecture and maturation pattern.
- Oral epithelial dysplasia is classified either as low-grade, including mild and moderate dysplasia, when cytomorphological changes are confined to the lower half of the epithelium, or as high-grade (severe dysplasia) when changes involve more than half of the epithelial thickness according to the 2017 WHO criteria

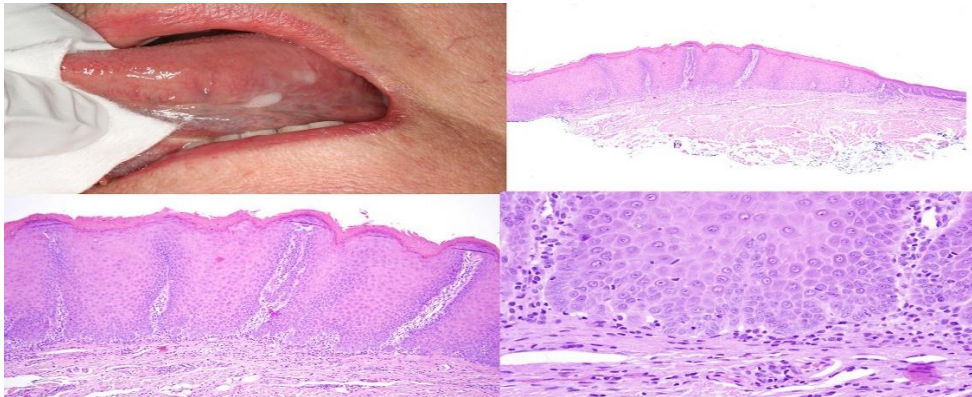


Carcinoma in situ

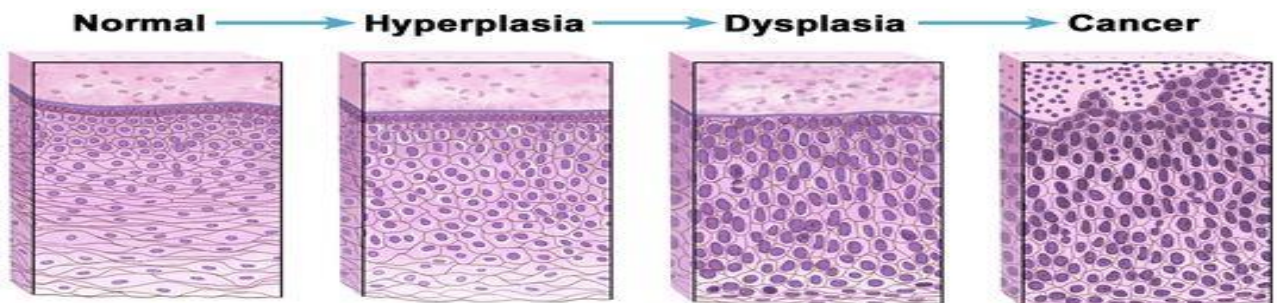
- Is cancer of the oral epithelium which is confined to the epithelial layer. It presents most commonly as a persistent red plaque (erythroplakia)
- or a mixed white and red plaque. It may also appear as a white plaque.
- Complete removal is the treatment.



The earliest form of squamous cell cancer



Normal Cells May Become Cancer Cells



Squamous cell carcinoma

▶ **Definition:**

It's a malignant neoplasm of stratified squamous epithelium in the oral cavity capable of local destructive growth and distant metastasis.

Squamous Cell Carcinoma



- 6th most common cancer worldwide (48,000 cases, 11,260 deaths in US, 2009)
- 5-year survival rate (~50%) improved only marginally in past decade
- recurrence in about 50% of patients

- Is the most common malignant neoplasm of the oral cavity.
- ❖ Tobacco and alcohol use and HPV infection have been identified as risk factors, but squamous cell carcinoma can occur in patients with no known risk factors.
- ❖ Squamous cell carcinoma can occur anywhere on the oral mucosa, but is most common on the ventral and lateral surfaces of the tongue, floor of the mouth, soft palate, tonsillar pillar area, and retromolar areas



Presenting Signs and Symptoms

- The high-risk sites ,lower lip, the anterior floor of the mouth, and the lateral borders of the tongue.
- Discomfort is the most common symptom that leads a patient to seek care and may be present at the time of diagnosis in up to 85% of patients.

mass in the mouth or neck.

- Dysphagia, and limited movement, oral bleeding, neck masses, and weight loss may occur with advanced disease.
- Loss of sensory function,.
- Loss of function involving the tongue can affect speech, swallowing, and diet.
- Possible tissue changes may include a red, white, or mixed red-and-white lesion

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Staging of Oral Cancer—TNM System

- The American Joint Committee on Cancer (AJCC) has developed Tumor Nodes Metastasis (TNM) staging system of cancer, which reflects the prognosis, and is therefore determinants for the treatment strategy.
- T is the size of the primary *t*umor,
- N indicates the presence of regional lymph *n*odes, and
- M indicates distant *m*etastasis.

Treatment of oscc depends on :

- cell type
- degree of differentiation,
- the site and size of the primary lesion
- lymph node status
- the presence of local bone involvement
- the ability to achieve adequate surgical margins
- the presence or absence of metastases