The most common oral pigmnteg lesions are smokers melanosis and racial pigmentation.pigmented lesions include yellow,brown or blach lesions.

They are classified into melanocystic(increased activity or number of melanocyte)examples include racial pigmentation and smoker melanosis and malnotic macule…… or non-melanocyctic(has nothing to do with melanocyte)such as amalgam tattoo.

**1- Racial pigmentation** (ethnic pigmentation) appears as brown patches on the oral mucosa or the gingiva. It is symmetrical and persistent (present at a young age), doesn’t affect gingival stippling and usually affects dark skinned patients.

The gingiva appears dark brown and we differentiate it from smoker’s melanosis by its symmetry and due to the fact that it is bilateral, the patient is usually a nonsmoker with dark skin.

**2- Smoking melanosis** affect smokers regardless of the type of smoking. It is dose and time related (increases with dose and time). The amount of pigmentation reflects the amount of smoking. It may affect children due to second hand smoking. The mechanism is unknown however smoking itself stimulates melanocytes and causes excessive production of melanin which appears as dark patches. It has no malignant potential but is a risk factor for cancer.

**3- Melanotic macules** they are a localized area of increased production of melanin (if generalized = Racial pigmentation)…. Asymptomatic…. With no risk malignant potential…mostly upper or lower lips.

All the previous disorders are due to increased melanocyte activity and not an increase in number.

Note: \*There is a syndrome known as **peutz jegher syndrome**, where the patient has cirumural pigmentation on the lips with intestinal polyps which are premalignant. This is a rare syndrome but we may encounter it.

**4- Some systemic diseases** cause oral pigmentation, the most important one is Addison’s disease. Here the patient has adrenal insufficiency due to reduction in the production of cortisone from the adrenal cortex. ACTH increase from the pituitary gland and this increases the melanocyte stimulation hormone and this increases melanin production which appears as melanin patches in the oral mucosa and the skin

**4-Nevus:** the difference between nevus and macules is that nevus is a benign proliferation of melanocyte while macule is due to increase in number of melanocyte but clinically it is hard to differentiate between them when these lesions are in oral cavity but when on skin>> nevus is elevated while macule is flats.

**There are three types of nevus:** 1-If proliferation is limited to the connective tissue 🡪 intramucosal nevus

2- If in the basement membrane 🡪 junctional nevus

3-If in both area 🡪 Compound nevus

There is a fourth type known as blue nevus, where the proliferation in the connective tissue is far from the basement membrane therefore it appears blue

**5- Melanoma**: Malignant tumor from melanocytes. It affects the skin but may affect the oral cavity. In the skin, its etiology is due to excessive exposure to the sun however in the oral cavity its etiology is unknown… it is very rare and very aggressive …it affects the gingival and the palate

**6- Amalgam tattoo**: Iatrogenic form of pigmentation due to implantation of amalgam in soft tissues, it is very common and is localized…. **It grows larger with time!**We can take an x-ray to diagnose it since amalgam is radio-opaque. Note that its texture is normal, it is **only a change in color.**

**7- Drugs**, pigmentations may be due to drugs such as:

Amino-quinolones,Cyclophosphamide,AZT,Minocycline,OCP.

**8- Heavy metals** such as:

Lead, Mercury, Arsenic, Bismuth, Copper, and Cisplatin.

Cisplatin (Platinum) is a chemotherapeutic drug.

**Appear as a continuous line on the gingival margin.**

**9- Post inflammatory pigmentation:** A patient with an inflammatory mucosal disease such as lichen planus could have pigmentations. The mechanism is due to the production of interleukins and cytokines which are part of the inflammatory process, all which stimulate the melanocytes