



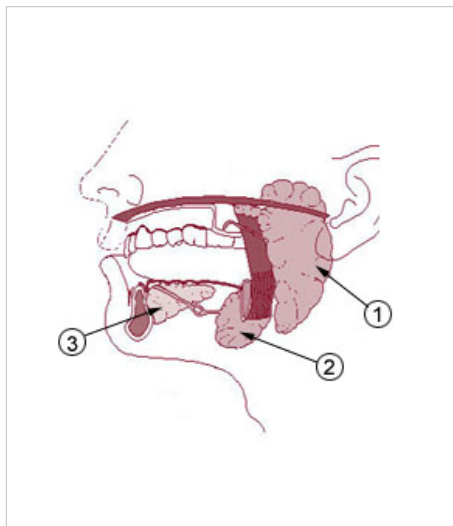
# **WORLD SKULL BASE E-LEARNING MATERIAL**

## **Salivary Gland Tumors**

# Salivary gland neoplasm

## Salivary gland cancer

*Classification and external resources*



The major salivary glands: the Parotid gland (1), where most salivary gland tumors form, the Submandibular gland (2), and the Sublingual gland (3).

<b>ICD-10</b>	C07 <sup>[1]</sup> -C08 <sup>[2]</sup> , D11 <sup>[3]</sup>
<b>ICD-9</b>	142 <sup>[4]</sup> , 210.2 <sup>[5]</sup>
<b>MedlinePlus</b>	001040 <sup>[6]</sup>
<b>MeSH</b>	D012468 <sup>[7]</sup>

**Salivary gland cancer** is a cancer that forms in tissues of a salivary gland. The salivary glands are classified as **major** and **minor**. The major salivary glands consist of the parotid, submandibular, and sublingual glands. The minor glands include small mucus-secreting glands located throughout the palate, nasal and oral cavity.<sup>[8]</sup> Salivary gland cancer is rare, with 2% of head and neck tumors forming in the salivary glands, the majority in the parotid.<sup>[9]</sup>

## Classification

Salivary gland neoplasms are classified by the World Health Organization as primary or secondary, benign or malignant, and by tissue of origin.<sup>[10]</sup> This system defines five broad categories of salivary gland neoplasms:<sup>[11]</sup>

- *malignant epithelial tumors* (e.g. acinic cell carcinoma, mucoepidermoid carcinoma and adenoid cystic carcinoma, salivary duct carcinoma)
- *benign epithelial tumors* (e.g. pleomorphic adenoma, myoepithelioma and Warthin tumour, sebaceous lymphadenoma)
- *soft tissue tumors* (Hemangioma)
- *hematolymphoid tumors* (e.g. Hodgkin lymphoma)
- *secondary tumors*.



Benign tumor of the submandibular gland, also known as pleomorphic adenoma, presented as a painless neck mass in a 40-year-old man. At the left of the image is the white tumor with its characteristic cartilaginous cut surface. To the right is the normally lobated submandibular salivary gland.

## Signs and symptoms

Signs include fluid draining from the ear, pain, numbness, weakness, trouble swallowing, and a lump. The most common symptom of major salivary gland cancer is a painless lump in the affected gland, sometimes accompanied by paralysis of the facial nerve.

## Causes

The chief risk factor is chewing tobacco, followed by smoking. Other risk factors include older age, radiation therapy treatment to head or neck, and being exposed to certain carcinogenic substances at work.

## Treatment

Treatment may include the following:

- Surgery with or without radiation.
- Radiation therapy.
- Chemotherapy.

## Radiotherapy

Fast neutron therapy has been used successfully to treat salivary gland tumors,<sup>[12]</sup> and has shown to be significantly more effective than photons in studies treating unresectable salivary gland tumors.<sup>[13][14]</sup>

## Notes

[1] <http://apps.who.int/classifications/icd10/browse/2010/en#/C07>

[2] <http://apps.who.int/classifications/icd10/browse/2010/en#/C08>

[3] <http://apps.who.int/classifications/icd10/browse/2010/en#/D11>

[4] <http://www.icd9data.com/getICD9Code.ashx?icd9=142>

[5] <http://www.icd9data.com/getICD9Code.ashx?icd9=210.2>

[6] <http://www.nlm.nih.gov/medlineplus/ency/article/001040.htm>

[7] [http://www.nlm.nih.gov/cgi/mesh/2013/MB\\_cgi?field=uid&term=D012468](http://www.nlm.nih.gov/cgi/mesh/2013/MB_cgi?field=uid&term=D012468)

[8] Shah, p. 240

[9] Harari, p. 89

[10] IARC, p. 210

[11] IARC, p. 210

- [12] Douglas JD, Koh WJ, Austin-Seymour, M, Laramore GE. Treatment of Salivary Gland Neoplasms with fast neutron Radiotherapy. Arch Otolaryngol Head Neck Surg Vol 129 944-948 Sep 2003
- [13] Laramore GE, Krall JM, Griffin TW, Duncan W, Richter MP, Saroja KR, Maor MH, Davis LW. Neutron versus photon irradiation for unresectable salivary gland tumors: final report of an RTOG-MRC randomized clinical trial. Int J Radiat Oncol Biol Phys. 1993 Sep 30;27(2):235-40.
- [14] Krüll A, Schwarz R, Engenhardt R, et al.: European results in neutron therapy of malignant salivary gland tumors. Bull Cancer Radiother 83 (Suppl): 125-9s, 1996

## References

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- "Tumors of the Salivary Glands" (<http://www.iarc.fr/en/publications/pdfs-online/pat-gen/bb9/bb9-chap5.pdf>) (PDF). *International Agency for Research on Cancer*. Retrieved 2009-07-30.
- Shah, Jatin (2001). *Atlas of Clinical Oncology: Cancer of the Head and Neck*. BC Decker Inc.

## External links

- Salivary gland cancer (<http://www.cancer.gov/dictionary?CdrID=446528>) entry in the public domain NCI Dictionary of Cancer Terms
  - The Patients Forum on Tumors Of The Parotid Gland (<http://patientsforum.com/>)
  - Clinically reviewed salivary gland cancer (<http://www.cancerhelp.org.uk/type/Salivary-gland-cancer/>) for patients from Cancer Research UK.
- © This article incorporates public domain material from the U.S. National Cancer Institute document "Dictionary of Cancer Terms" (<http://www.cancer.gov/dictionary>).

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