

HEAD AND NECK TUMOURS

Introductory Notes

The following sites are included:

- Lip, oral cavity
- Pharynx: oropharynx, nasopharynx, hypopharynx
- Larynx: supraglottis, glottis, subglottis
- Nasal cavity and paranasal sinuses
- • Malignant melanoma of upper aerodigestive tract
- Major salivary glands
- Thyroid gland

Carcinomas arising in the minor salivary glands of the upper aerodigestive tract are classified according to the rules for tumours of their anatomic site of origin, e.g., oral cavity.

Regional Lymph Nodes (Fig. 4)

The definitions of the N categories for all head and neck sites except nasopharynx, mucosal malignant melanoma of the upper aerodigestive tract and thyroid are the same.

Midline nodes are considered ipsilateral nodes except in the thyroid.

These include

- (1) Submental nodes
- (2) Submandibular nodes
- (3) Cranial jugular (deep cervical) nodes
- (4) Medial jugular (deep cervical) nodes
- (5) Caudal jugular (deep cervical) nodes
- (6) Dorsal cervical (superficial cervical) nodes along the accessory nerve
- (7) Supraclavicular nodes
- (8) Prelaryngeal, pretracheal*, and paratracheal nodes
- (9) Retropharyngeal nodes
- (10) Parotid nodes
- (11) Buccal nodes
- (12) Retroauricular and occipital nodes

Note

*The pretracheal lymph nodes are sometimes known as "Delphian nodes".

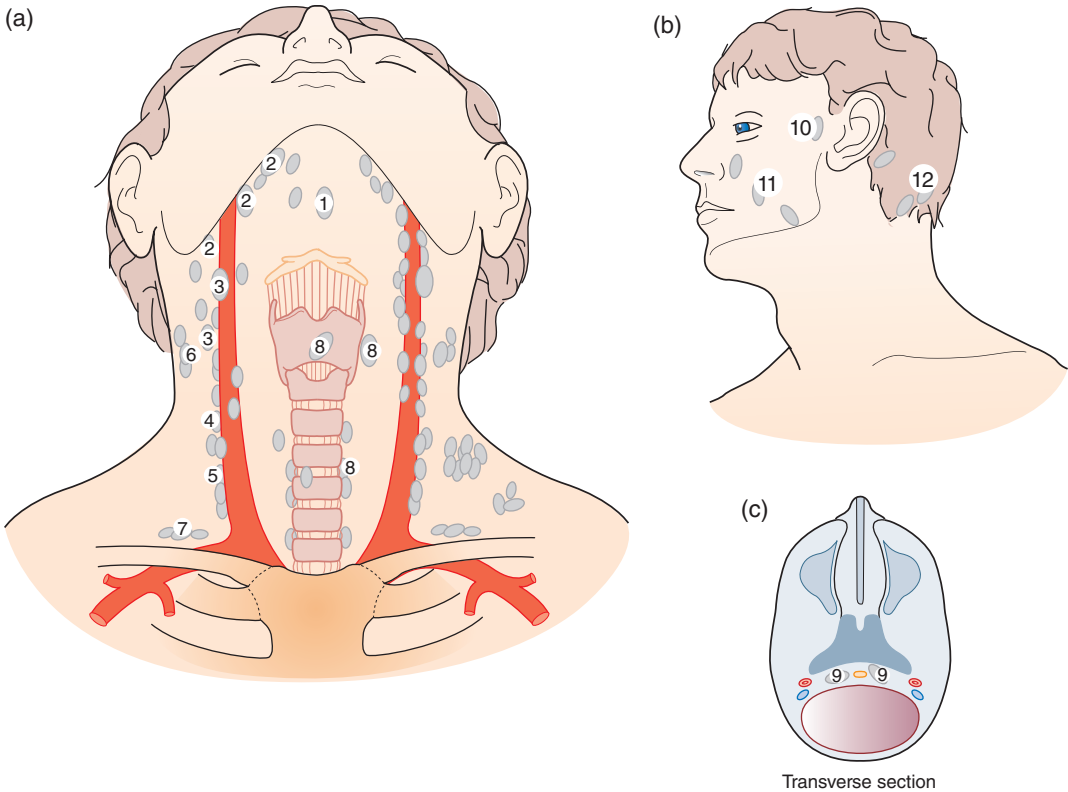


Fig. 4

N/pN Classification – Regional Lymph Nodes

The definitions of the N categories for all head and neck sites except nasopharynx, mucosal malignant melanoma of the upper aerodigestive tract and thyroid are:

- NX/pNX Regional lymph nodes cannot be assessed
- N0/pN0 No regional lymph node metastasis

pN0 Histological examination of a selective neck dissection specimen will ordinarily include 6 or more lymph nodes. Histological examination of a radical or modified radical neck dissection specimen will ordinarily include 10 or more lymph nodes. If the lymph nodes are negative, but the number ordinarily examined is not met, classify as pN0. When size is a criterion for pN classification, measurement is made of the metastasis, not of the entire lymph node.

- N1 Metastasis in a single ipsilateral lymph node, 3 cm or less in greatest dimension (Fig. 5)
- N2 Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension; or in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension; or in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension

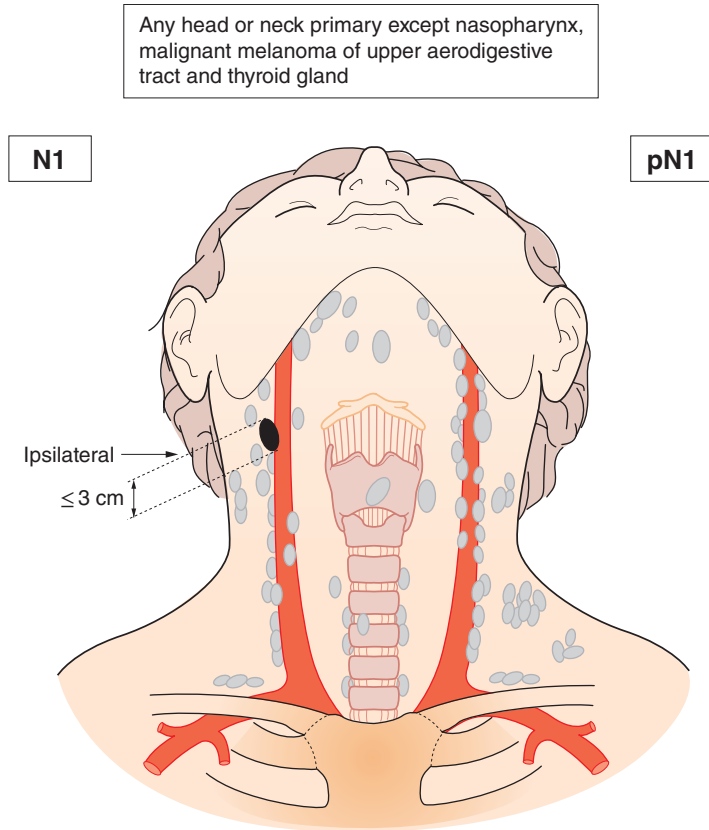


Fig. 5

4 Head and Neck Tumours

N2a Metastasis in a single ipsilateral lymph node, more than 3 cm but not more than 6 cm in greatest dimension (Fig. 6)

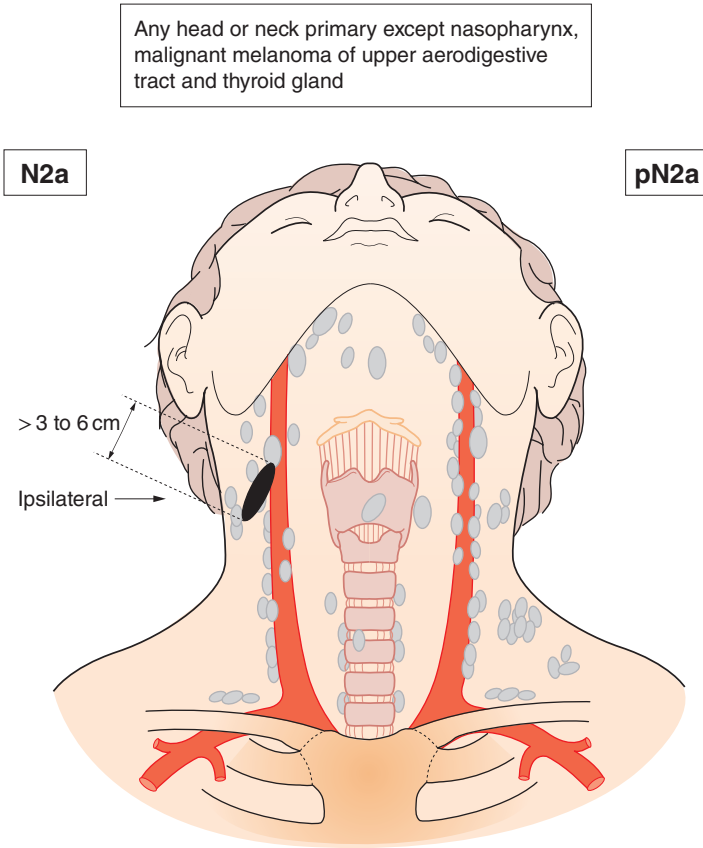


Fig. 6

N2b Metastasis in multiple ipsilateral lymph nodes, none more than 6 cm in greatest dimension (Fig. 7)

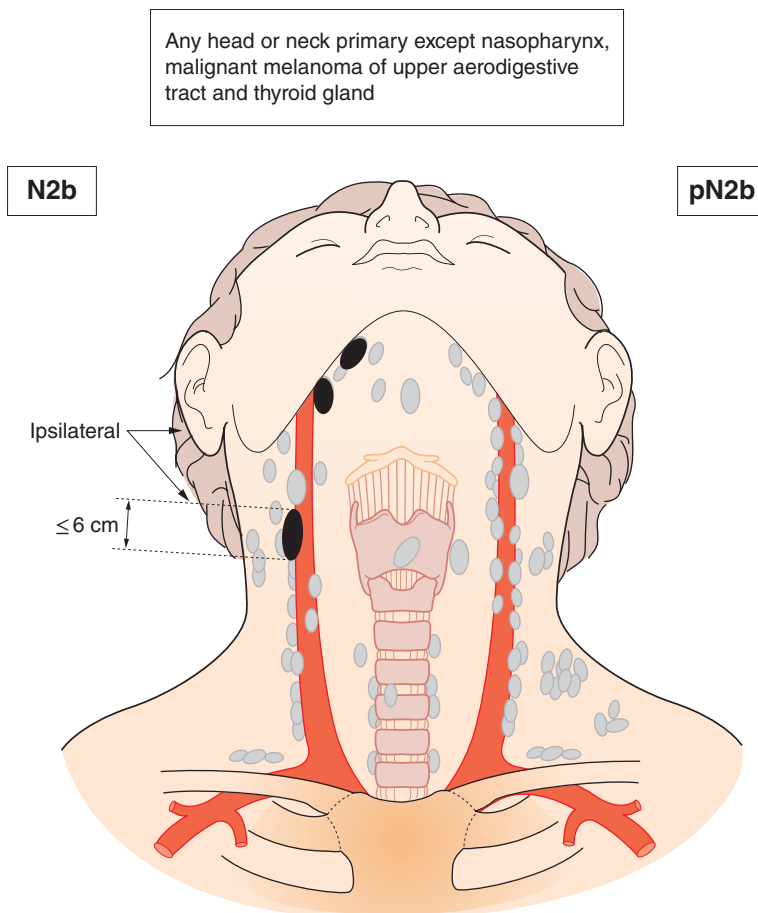


Fig. 7

6 Head and Neck Tumours

N2c Metastasis in bilateral or contralateral lymph nodes, none more than 6 cm in greatest dimension (Fig. 8)

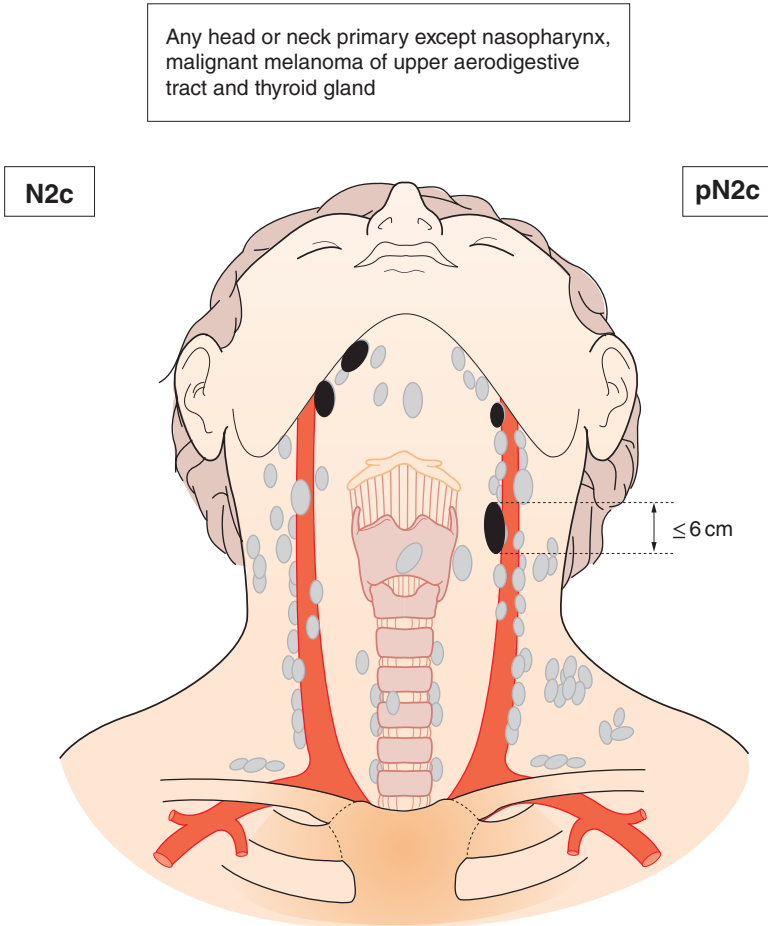


Fig. 8

N3 Metastasis in a lymph node more than 6 cm in greatest dimension (Fig. 9)

Note

Midline nodes are considered ipsilateral nodes.

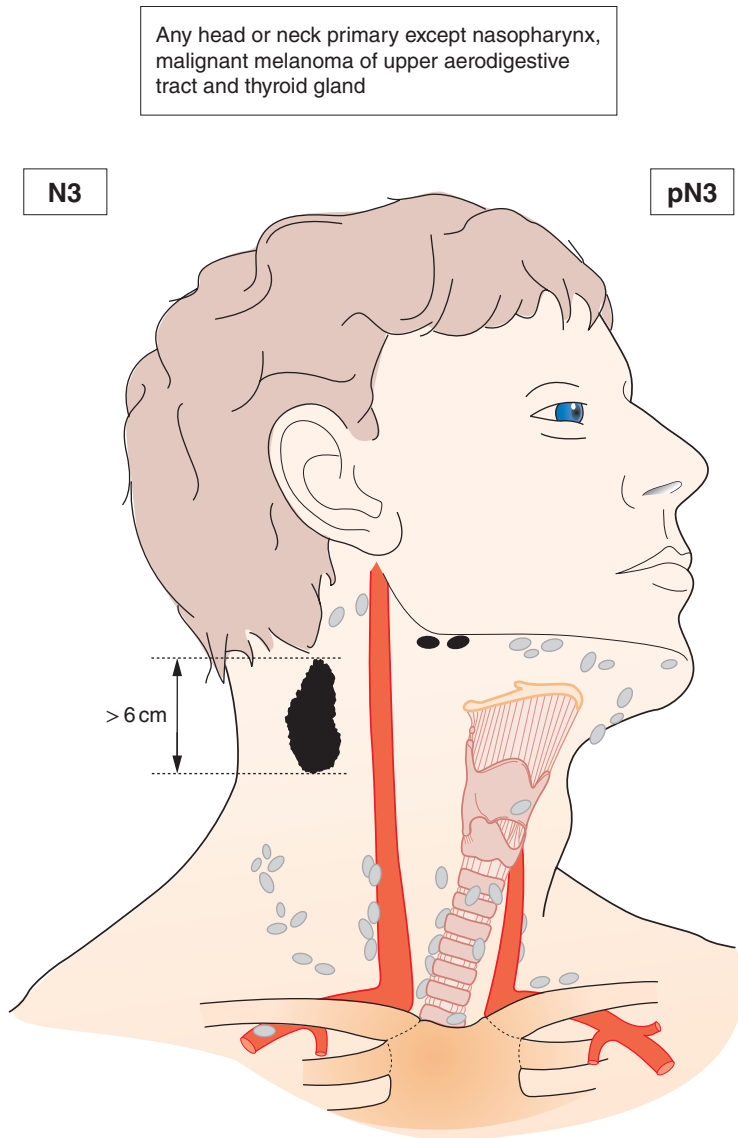


Fig. 9

LIP AND ORAL CAVITY (ICD-O C00, C02–06)

Rules for Classification

The classification applies only to carcinomas of the vermilion surfaces of the lips and of the oral cavity, including those of minor salivary glands. There should be histological confirmation of the disease.

Anatomical Sites and Subsites

Lip (Fig. 10)

1. External upper lip (vermillion border) (C00.0)
2. External lower lip (vermillion border) (C00.1)
3. Commissures (C00.6)

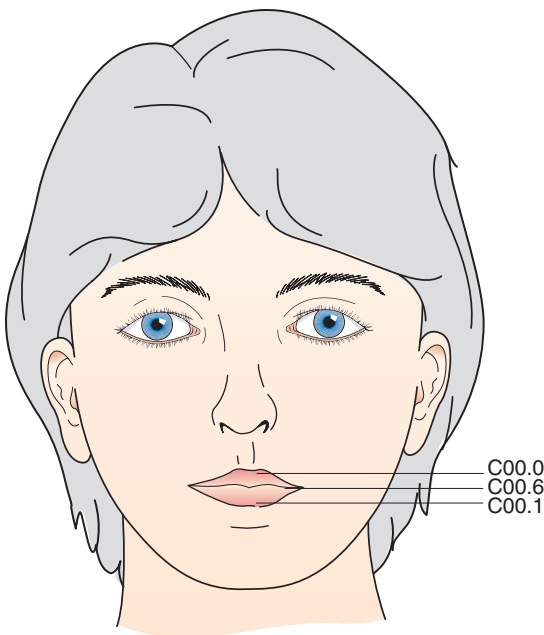
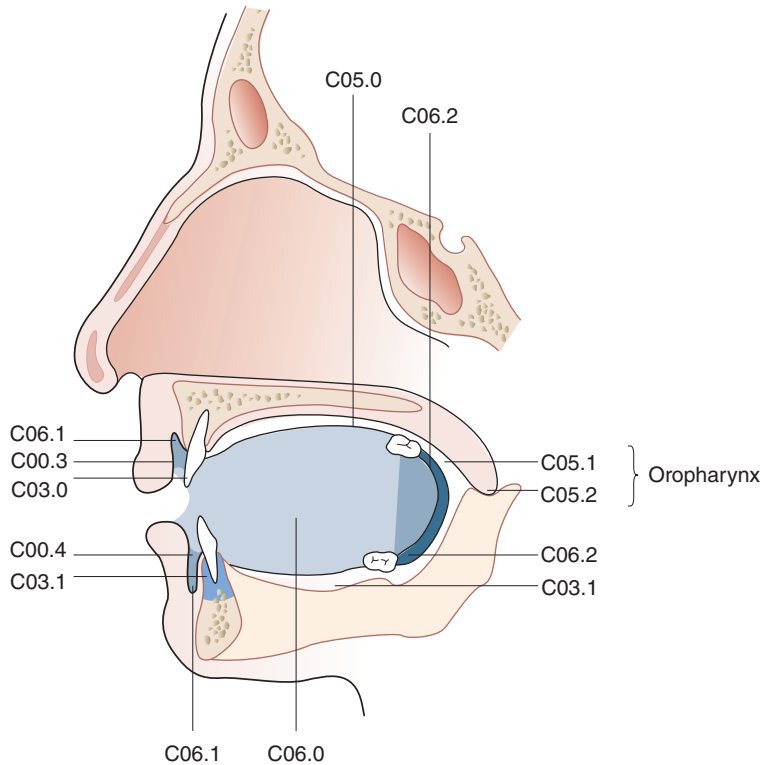


Fig. 10

Oral Cavity (Figs. 11, 12, 13)

1. Buccal mucosa
 - (i) Mucosa of upper and lower lips (C00.3, 4)
 - (ii) Cheek mucosa (C06.0)
 - (iii) Retromolar areas (C06.2)
 - (iv) Bucco-alveolar sulci, upper and lower (vestibule of mouth) (C06.1)
2. Upper alveolus and gingiva (upper gum) (C03.0)
3. Lower alveolus and gingiva (lower gum) (C03.1)
4. Hard palate (C05.0)
5. Tongue
 - (i) Dorsal surface and lateral borders anterior to vallate papillae (anterior two-thirds) (C02.0, 1)
 - (ii) Inferior (ventral) surface (C02.2)
6. Floor of mouth (C04)

**Fig. 11**

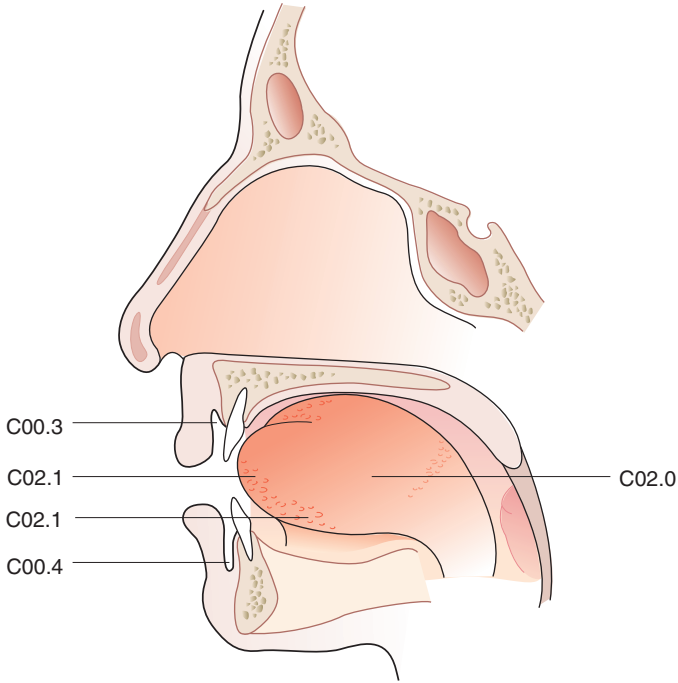


Fig. 12

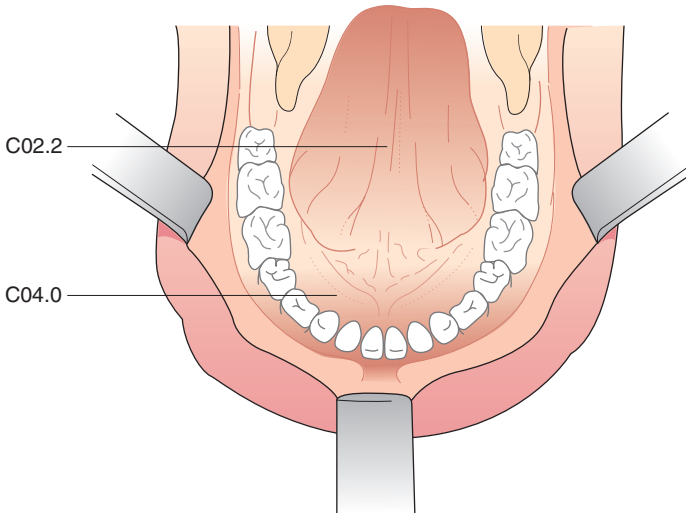


Fig. 13

N – Regional Lymph Nodes

See Head and Neck Tumours.

TN Clinical Classification

T – Primary Tumour

- TX Primary tumour cannot be assessed
 T0 No evidence of primary tumour
 Tis Carcinoma in situ
 T1 Tumour 2 cm or less in greatest dimension (Figs. 14, 15)
 T2 Tumour more than 2 cm but not more than 4 cm in greatest dimension (Figs. 16, 17)
 T3 Tumour more than 4 cm in greatest dimension (Figs. 18, 19)
 T4a (*lip*) Tumour invades through cortical bone, inferior alveolar nerve, floor of mouth, or skin (chin or nose) (Figs. 20, 21)
 T4a (*oral cavity*) Tumour invades through cortical bone, into deep/extrinsic muscle of tongue (genioglossus, hyoglossus, palatoglossus, and styloglossus), maxillary sinus, or skin of face (Figs. 22, 23, 24)
 T4b (*lip and oral cavity*) Tumour invades masticator space, pterygoid plates, or skull base, or encases internal carotid artery (Fig. 25)

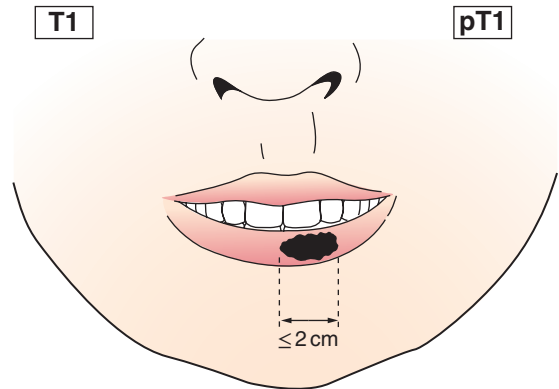


Fig. 14

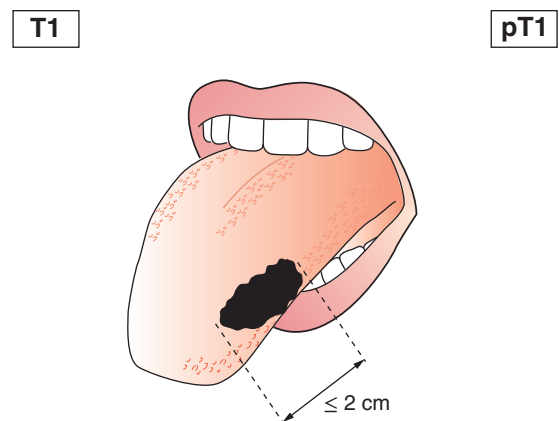


Fig. 15

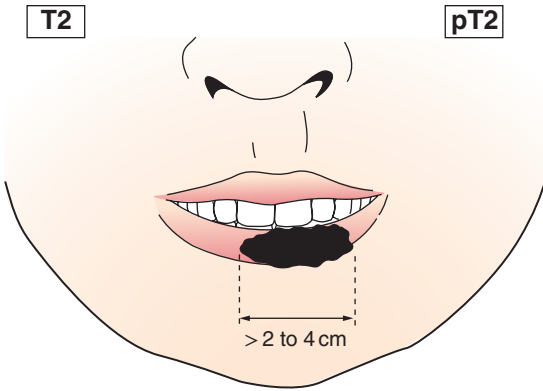


Fig. 16

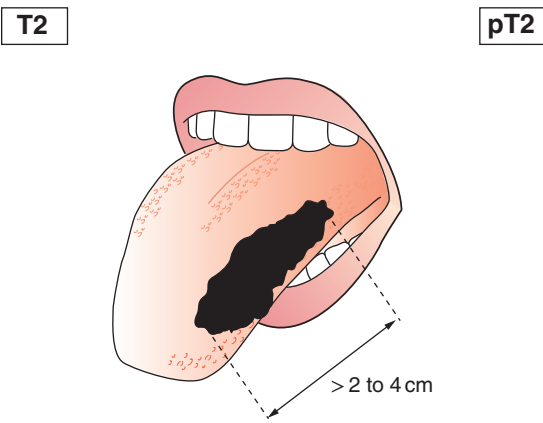


Fig. 17

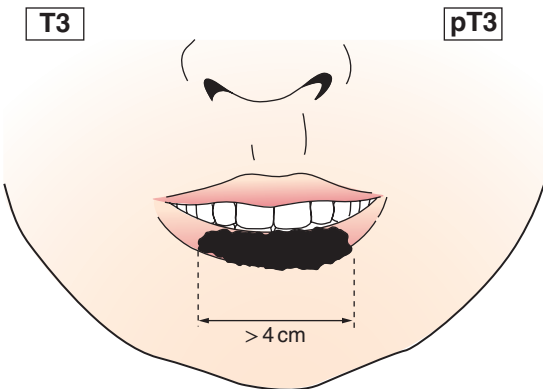


Fig. 18

T3

pT3

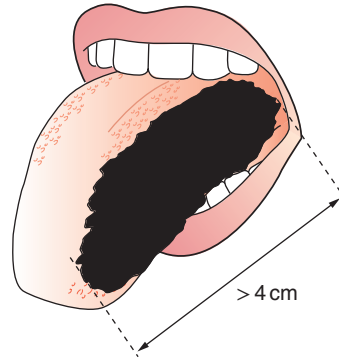


Fig. 19

T4a

pT4a

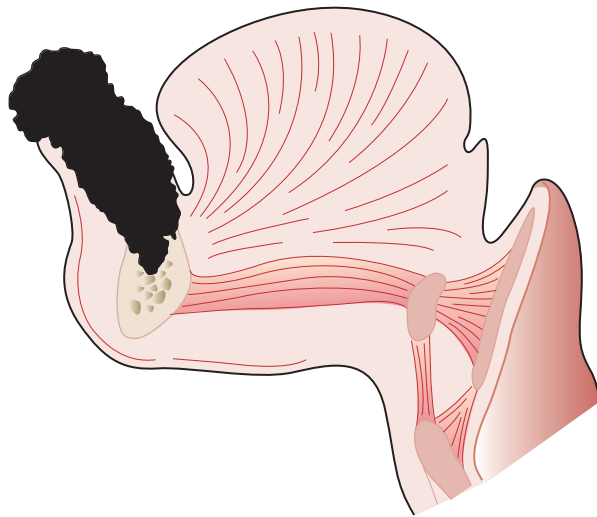


Fig. 20

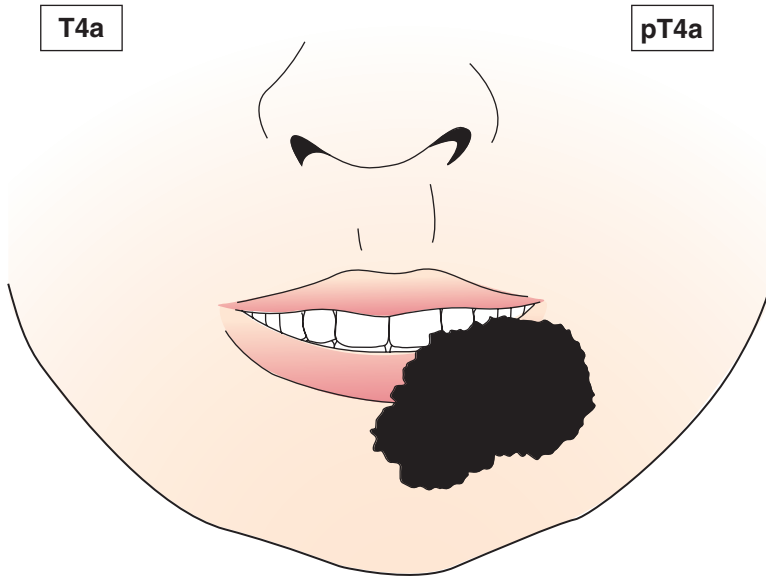


Fig. 21

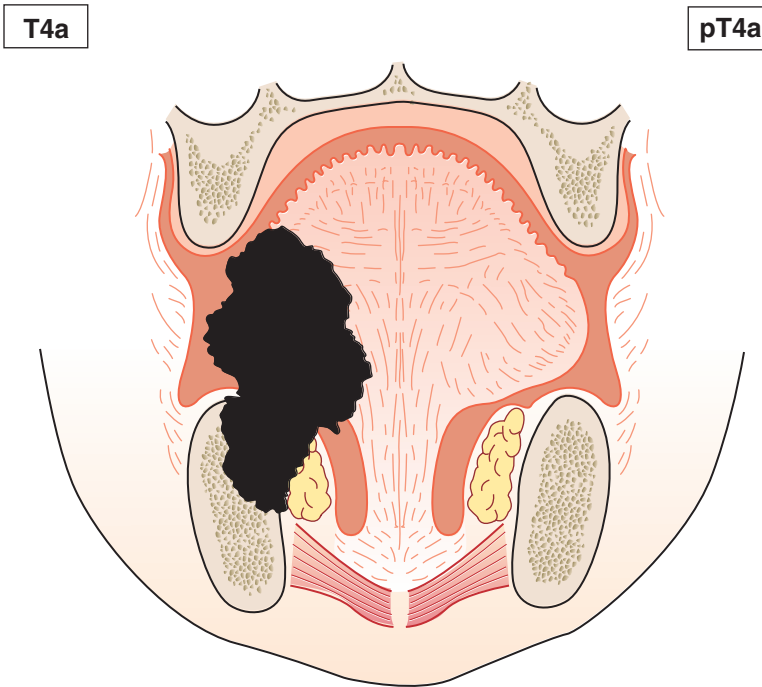


Fig. 22

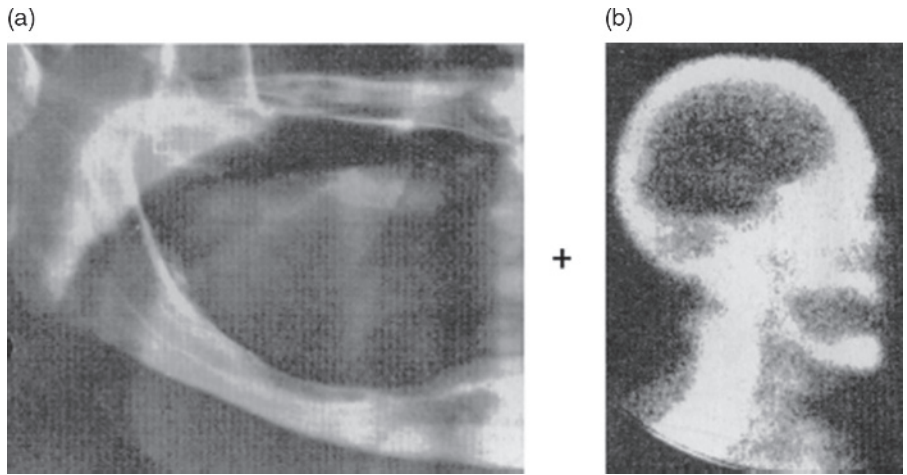


Fig. 23

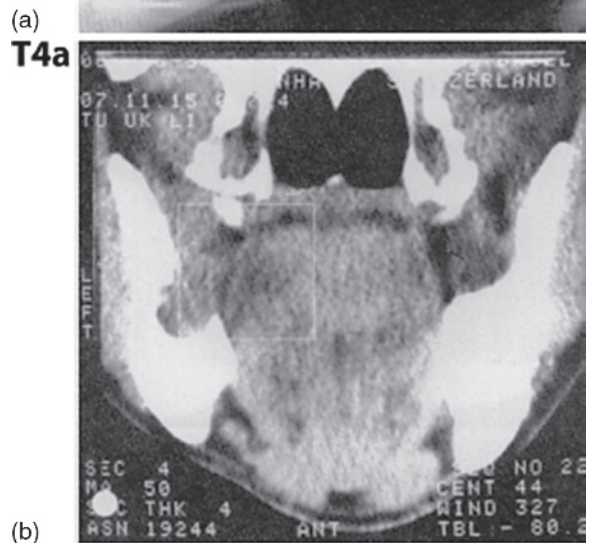
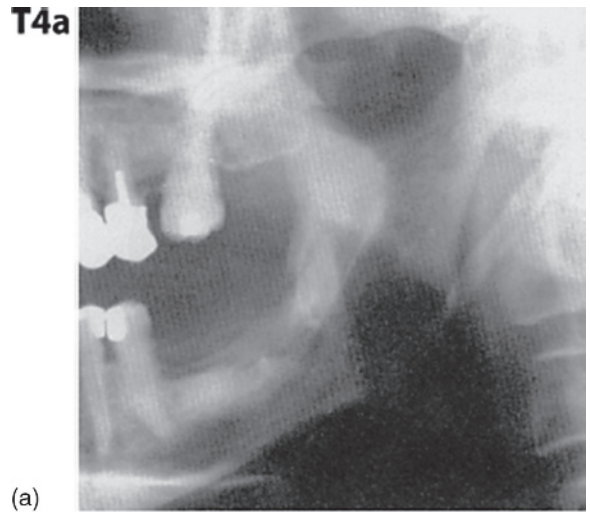


Fig. 24 (b)

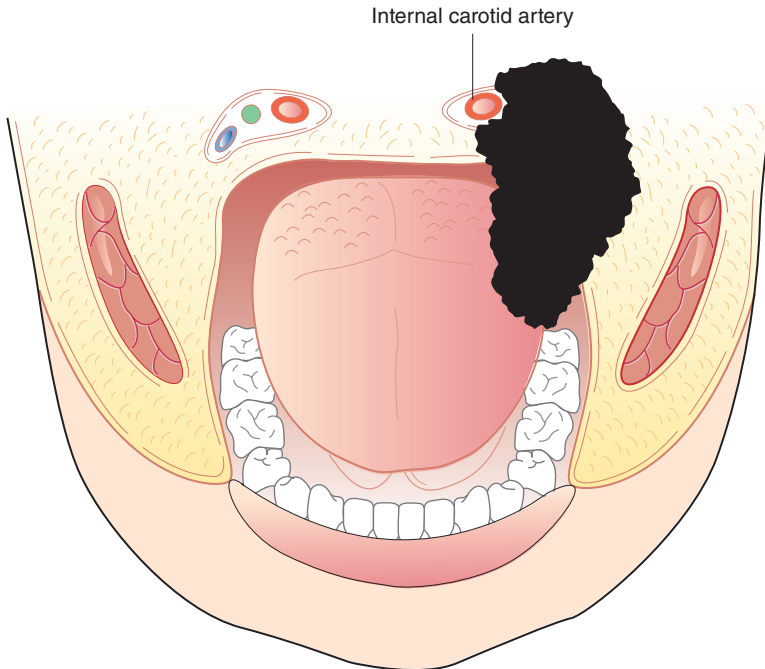


Fig. 25

Note

Superficial erosion alone of bone/tooth socket by gingival primary is not sufficient to classify a tumour as T4a.

N – Regional Lymph Nodes

See Head and Neck Tumours.

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Lip, Oral Cavity

T1	< 2 cm
T2	> 2 to 4 cm
T3	> 4 cm
T4a	<i>Lip</i> : through cortical bone, inferior alveolar nerve, floor of mouth, skin <i>Oral cavity</i> : through cortical bone, deep/extrinsic muscle of tongue, maxillary sinus, skin
T4b	Masticator space, pterygoid plates, skull base, internal carotid artery
N1	Ipsilateral single ≤ 3 cm
N2	(a) Ipsilateral single > 3 to 6 cm (b) Ipsilateral multiple ≤ 6 cm (c) Bilateral, contralateral ≤ 6 cm
N3	> 6 cm

PHARYNX (ICD-O C01, C05.1, 2, C09, C10.0, 2, 3,

C11–13)

Rules for Classification

The classification applies only to carcinomas. There should be histological confirmation of the disease.

Anatomical Sites and Subsites

Oropharynx (C01, C05.1, 2, C09.0, 1, 9, C10.0, 2, 3) (Figs. 26, 27)

1. Anterior wall (glosso-epiglottic area)
 - (i) Base of tongue (posterior to the vallate papillae or posterior third) (C01)
 - (ii) Vallecula (C10.0)
2. Lateral wall (C10.2)
 - (i) Tonsil (C09.9)
 - (ii) Tonsillar fossa (C09.0) and tonsillar (faucial) pillars (C09.1)
 - (iii) Glossotonsillar sulci (tonsillar pillars) (C09.1)
3. Posterior wall (C10.3)
4. Superior wall
 - (i) Inferior surface of soft palate (C05.1)
 - (ii) Uvula (C05.2)

Note

The lingual (anterior) surface of the epiglottis (C10.1) is included with the larynx, suprahyoid epiglottis (see pages 35–36).

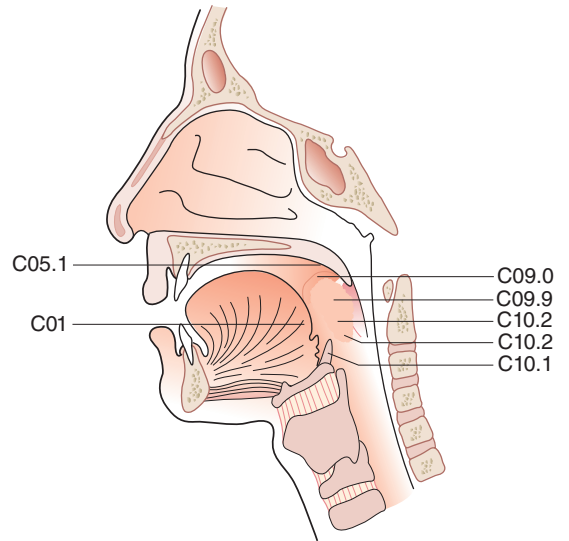


Fig. 26

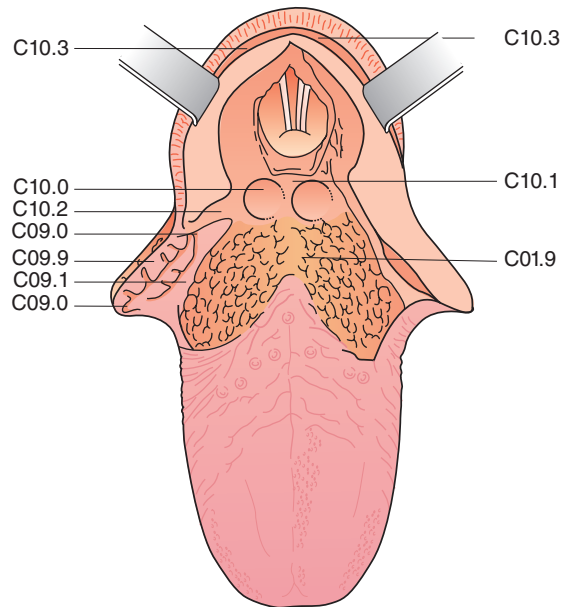


Fig. 27

Nasopharynx (Fig. 28)

1. Postero-superior wall: extends from the level of the junction of the hard and soft palates to the base of the skull (C11.0, 1)
2. Lateral wall: including the fossa of Rosenmüller (C11.2)
3. Inferior wall: consists of the superior surface of the soft palate (C11.3)

Note

The margin of the choanal orifices, including the posterior margin of the nasal septum, is included with the nasal fossa.

Hypopharynx (C12, C13) (Fig. 28)

1. Pharyngo-oesophageal junction (postcricoid area) (C13.0): extends from the level of the arytenoid cartilages and connecting folds to the inferior border of the cricoid cartilage, thus forming the anterior wall of the hypopharynx
2. Piriform sinus (C12.9): extends from the pharyngoepiglottic fold to the upper end of the oesophagus. It is bounded laterally by the thyroid cartilage and medially by the hypopharyngeal surface of the aryepiglottic fold (C13.1) and the arytenoid and cricoid cartilages
3. Posterior pharyngeal wall (C13.2): extends from the superior level of the hyoid bone (or floor of the vallecula) to the level of the inferior border of the cricoid cartilage and from the apex of one piriform sinus to the other

Regional Lymph Nodes

The regional lymph nodes are the cervical nodes.

The supraclavicular fossa (relevant to classifying nasopharyngeal carcinoma) is the triangular region defined by three points:

- (1) the superior margin of the sternal end of the clavicle;
- (2) the superior margin of the lateral end of the clavicle;
- (3) the point where the neck meets the shoulder. This includes caudal portions of Levels IV and V (Classification according to Robbins et al.¹).

¹Robbins KT, Median JE, Wolfe GT, Levine PA, Sesions RB, Pruet CW (1991) Standardizing neck dissection terminology. Official report of the Academy's Committee for Head and Neck Surgery and Oncology. *Arch Otolaryngol Head Neck Surg* 117:601–605.

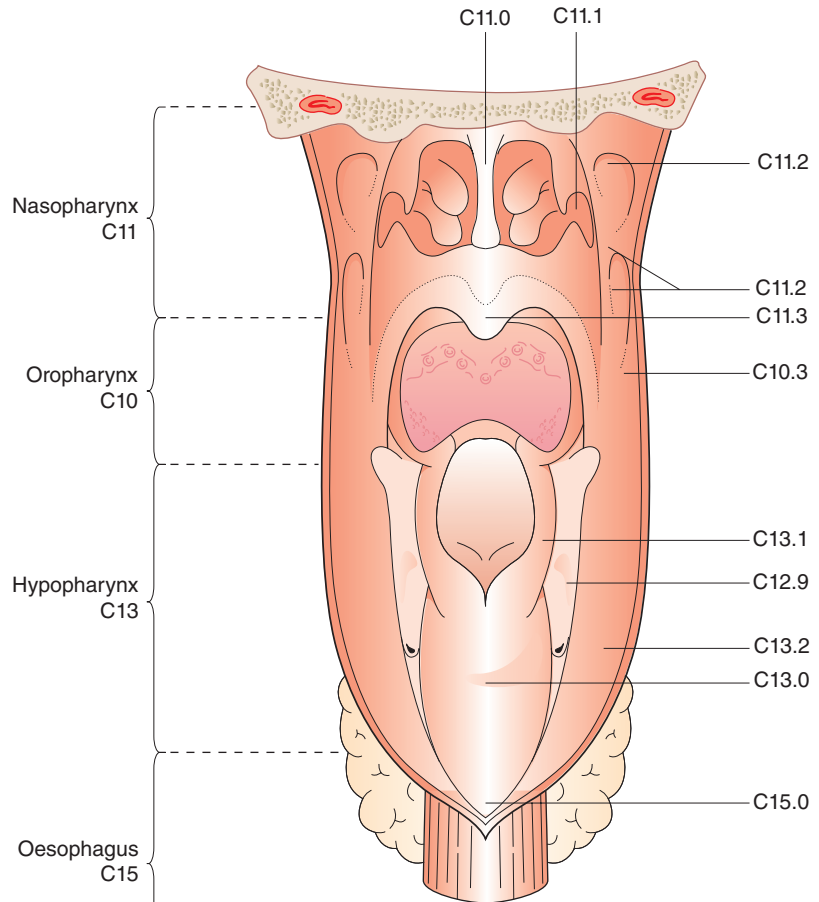


Fig. 28

TN Clinical Classification

T – Primary Tumour

- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- Tis Carcinoma in situ

Oropharynx

- T1 Tumour 2 cm or less in greatest dimension (Fig. 29)
- T2 Tumour more than 2 cm but not more than 4 cm in greatest dimension (Fig. 30)
- T3 Tumour more than 4 cm in greatest dimension or extension to lingual surface of epiglottis (Fig. 31)

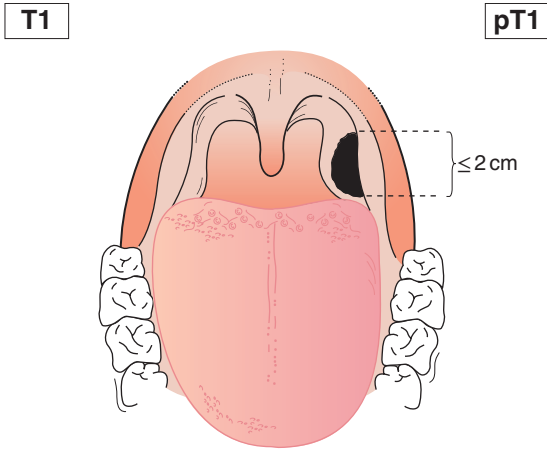


Fig. 29

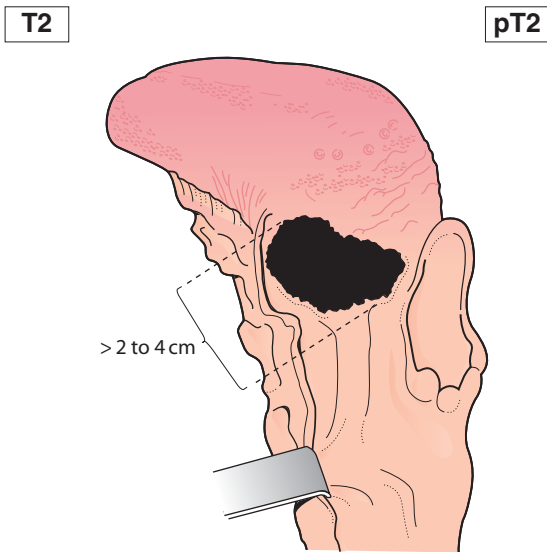


Fig. 30

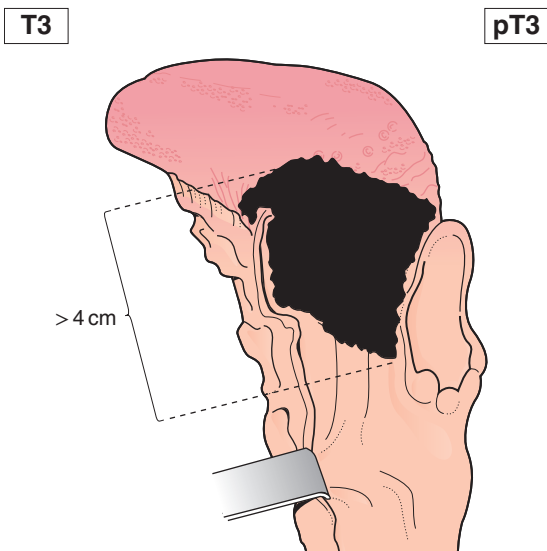


Fig. 31

- T4a Tumour invades any of the following: larynx, deep/extrinsic muscle of tongue (genioglossus, hyoglossus, palatoglossus, and styloglossus), medial pterygoid, hard palate, or mandible* (Fig. 32)
- T4b Tumour invades any of the following: lateral pterygoid muscle, pterygoid plates, lateral nasopharynx, skull base; or encases carotid artery (Fig. 33)

Note

*Mucosal extension to lingual surface of epiglottis from primary tumours of the base of the tongue and vallecula does not constitute invasion of the larynx.

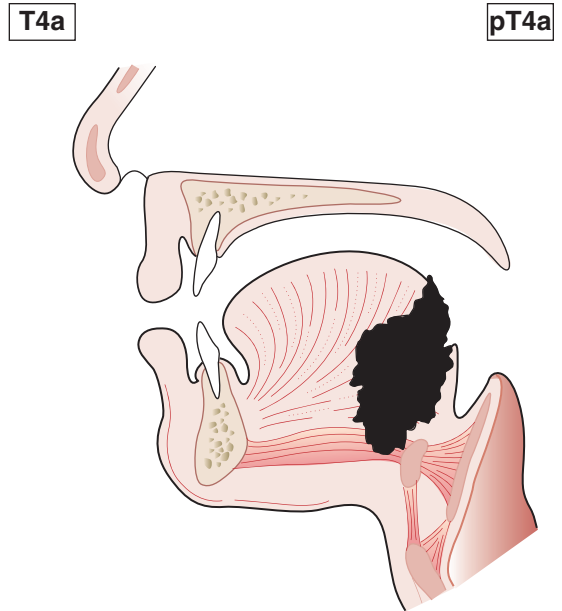


Fig. 32

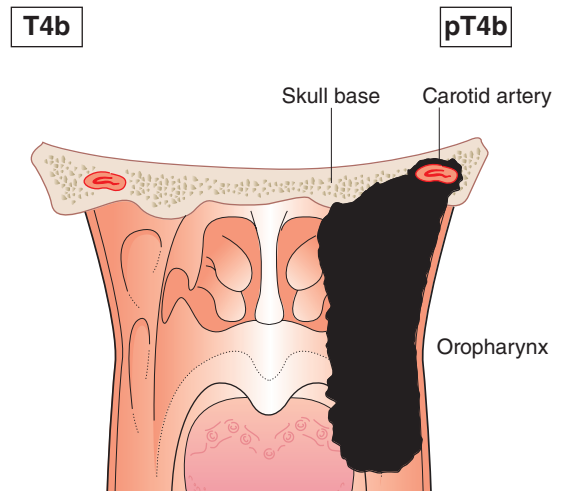


Fig. 33

Nasopharynx

- T1 Tumour confined to nasopharynx, or extends to oropharynx and/or nasal cavity (Fig. 34)
- T2 Tumour with parapharyngeal extension* (Figs. 35, 36)
- T3 Tumour invades bony structures of skull base and/or paranasal sinuses (Fig. 37)
- T4 Tumour with intracranial extension and/or involvement of cranial nerves, hypopharynx, orbit, or with extension to the infratemporal fossa/masticator space (Fig. 38)

Note

*Parapharyngeal extension denotes postero-lateral infiltration of tumour.

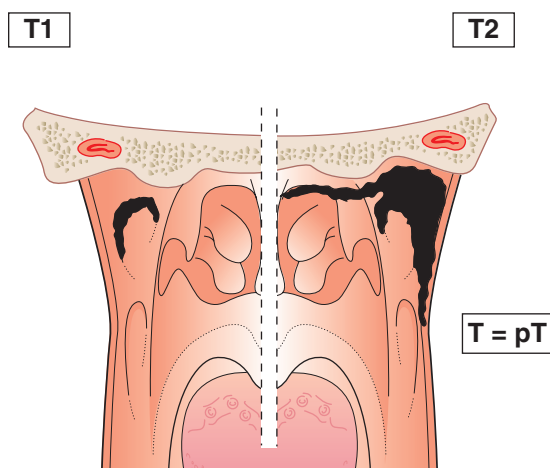


Fig. 34

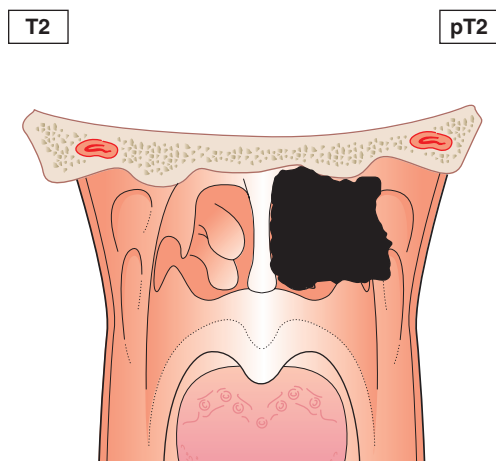


Fig. 35

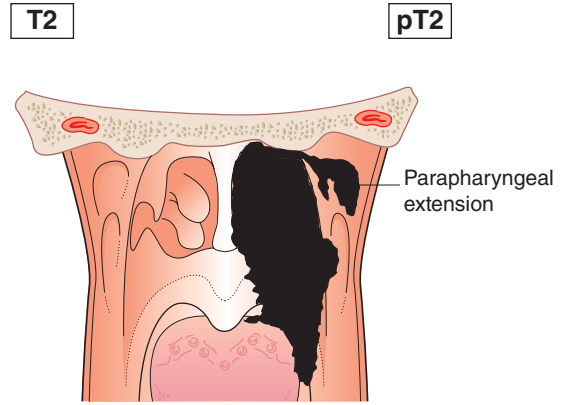


Fig. 36

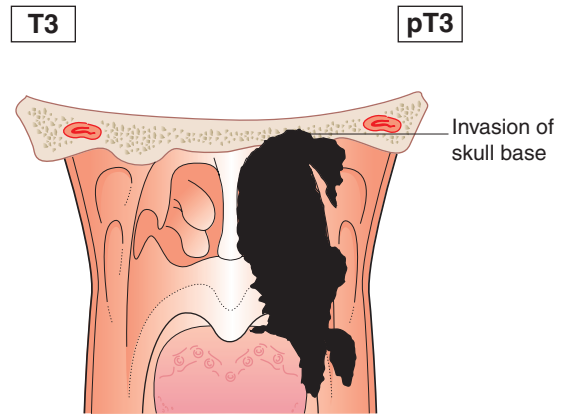


Fig. 37

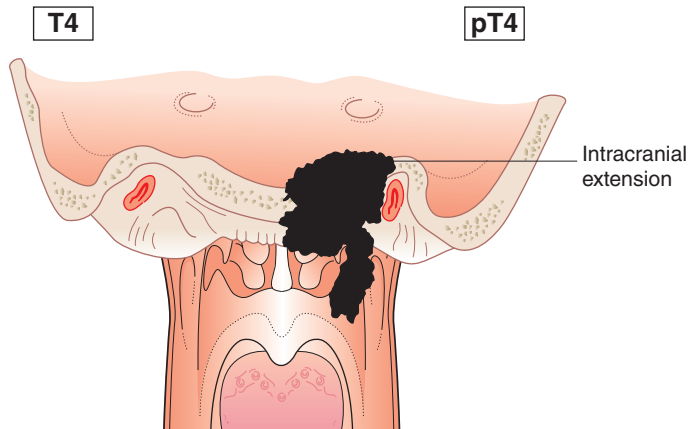


Fig. 38

Hypopharynx

- T1 Tumour limited to one subsite of hypopharynx (see Fig. 28) and/or 2 cm or less in greatest dimension (Figs. 39, 40, 41)
- T2 Tumour invades more than one subsite of hypopharynx or an adjacent site, or measures more than 2 cm but not more than 4 cm in greatest dimension, *without* fixation of hemilarynx (Figs. 42, 43, 44, 45, 46)
- T3 Tumour more than 4 cm in greatest dimension, or *with* fixation of hemilarynx or extension to oesophagus (Figs. 47, 48, 49)
- T4a Tumour invades any of the following: thyroid/cricoid cartilage, hyoid bone, thyroid gland, oesophagus, central compartment soft tissue* (Figs. 50, 51)
- T4b Tumour invades prevertebral fascia (Fig. 52), encases carotid artery, or invades mediastinal structures

Note

*Central compartment soft tissue includes prelaryngeal strap muscles and subcutaneous fat.

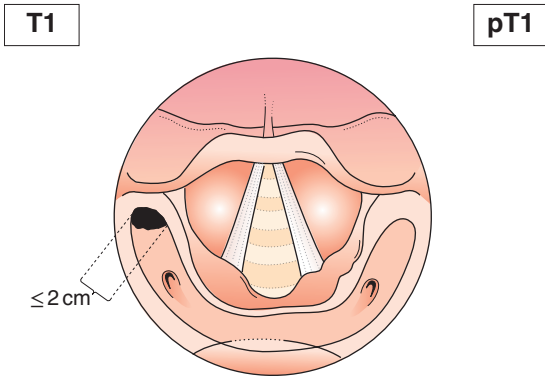


Fig. 39

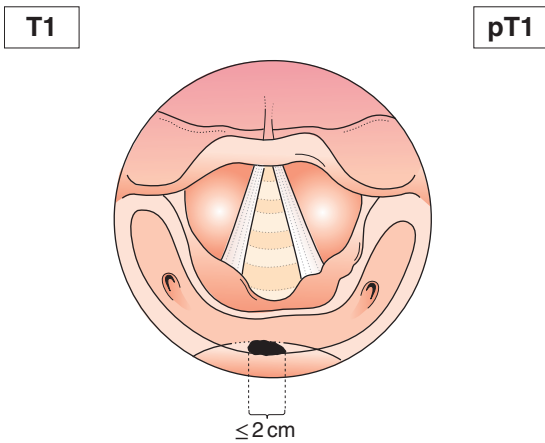


Fig. 40

T1

pT1

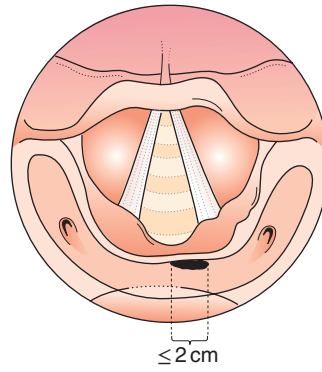


Fig. 41

T2

pT2

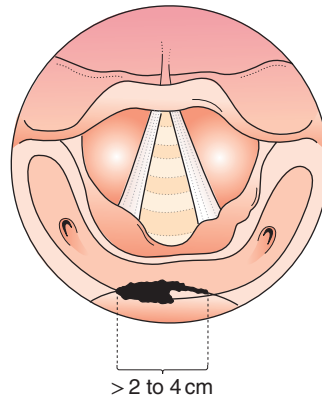


Fig. 42

T2

pT2

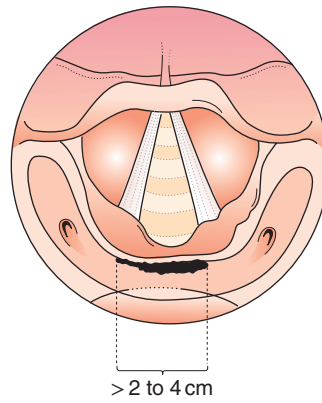


Fig. 43

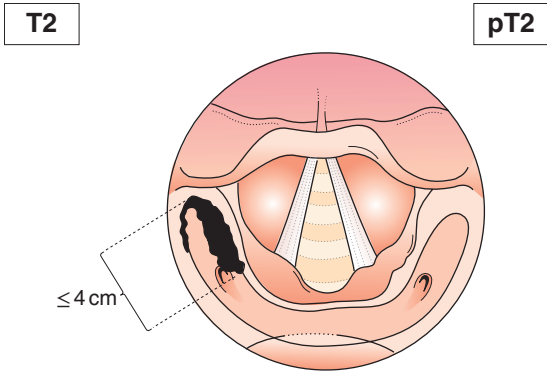


Fig. 44

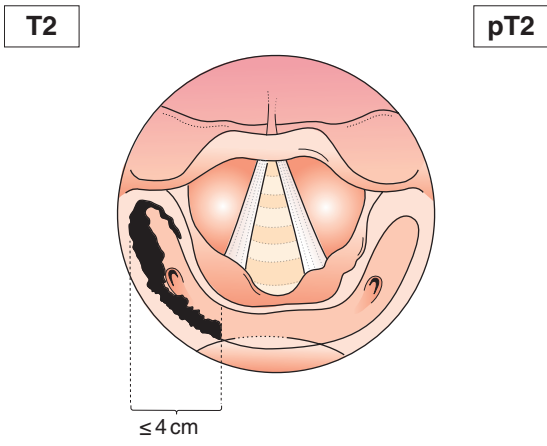


Fig. 45

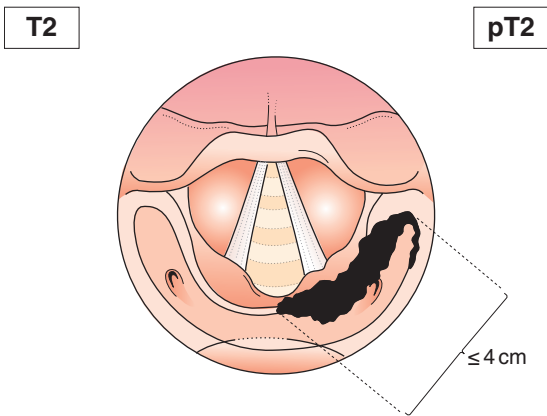


Fig. 46

T3

pT3

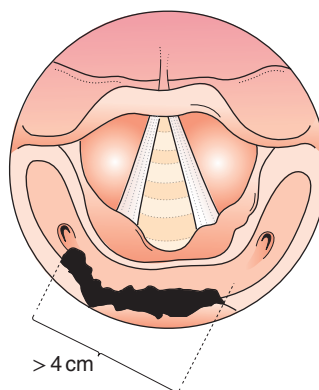


Fig. 47

T3

pT3

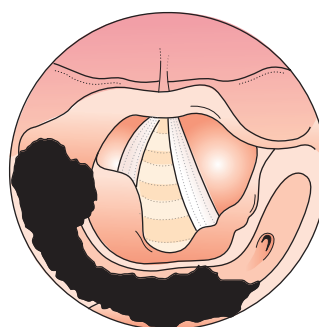


Fig. 48

T3

pT3

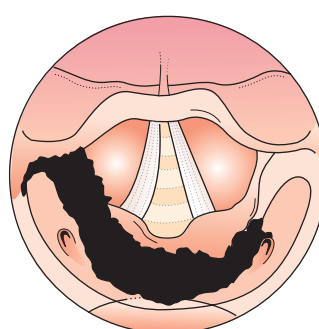


Fig. 49

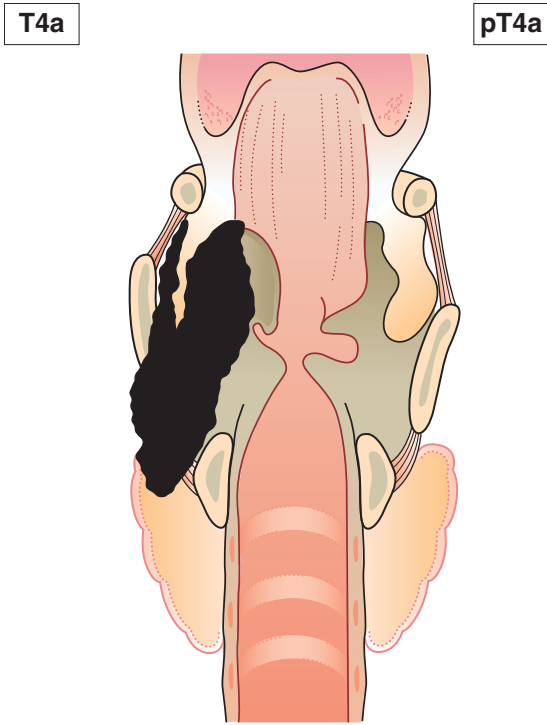


Fig. 50

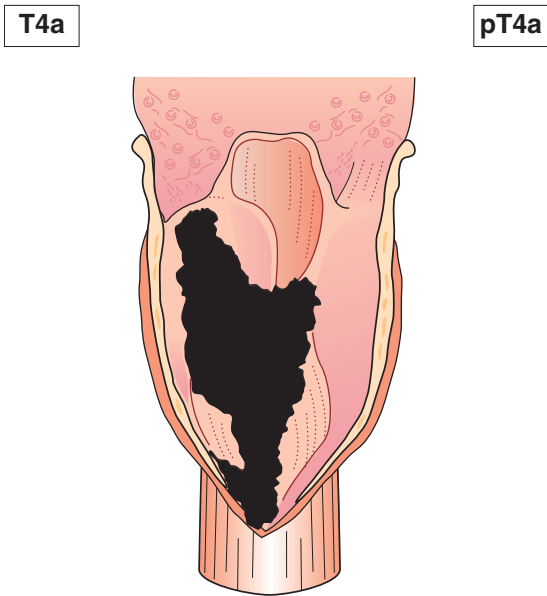


Fig. 51

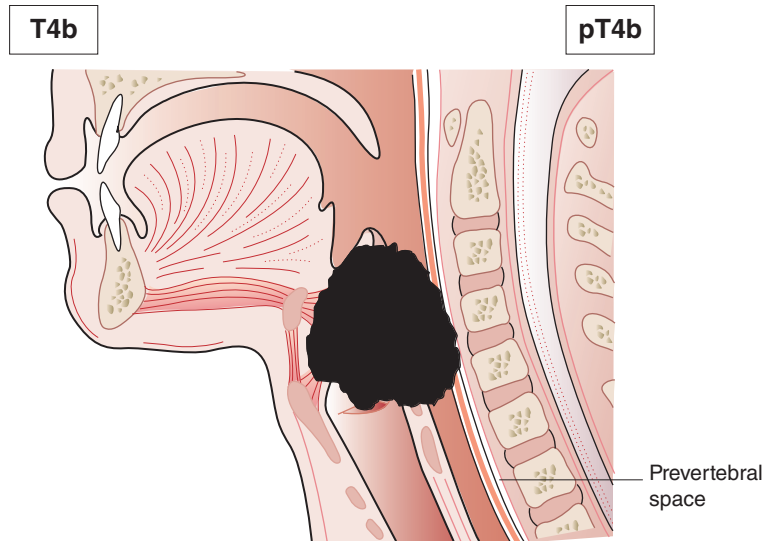


Fig. 52

Oro- and Hypopharynx

N – Regional Lymph Nodes

See Head and Neck Tumours.

Nasopharynx

N – Regional Lymph Nodes

- NX Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastasis
- N1 Unilateral metastasis, in cervical lymph node(s), and/or unilateral or bilateral metastasis in retropharyngeal lymph nodes, 6 cm or less in greatest dimension, above the supraclavicular fossa (Fig. 53)
- N2 Bilateral metastasis in cervical lymph node(s), 6 cm or less in greatest dimension, above the supraclavicular fossa (Fig. 54)
- N3 Metastasis in cervical lymph node(s) greater than 6 cm in dimension or in the supraclavicular fossa (Fig. 55)
 - N3a Greater than 6 cm in dimension
 - N3b Extension in the supraclavicular fossa

Note

Midline nodes are considered ipsilateral nodes.

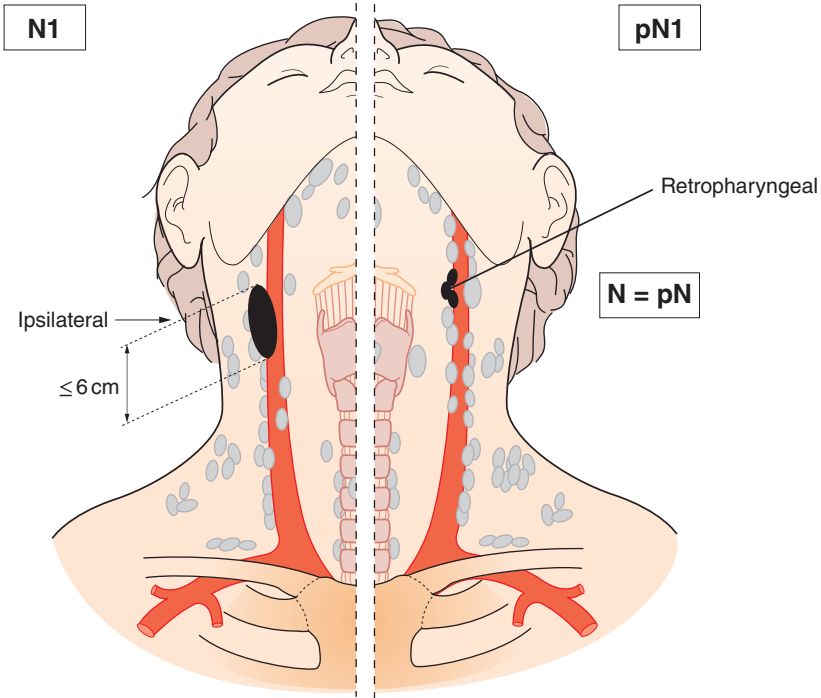


Fig. 53

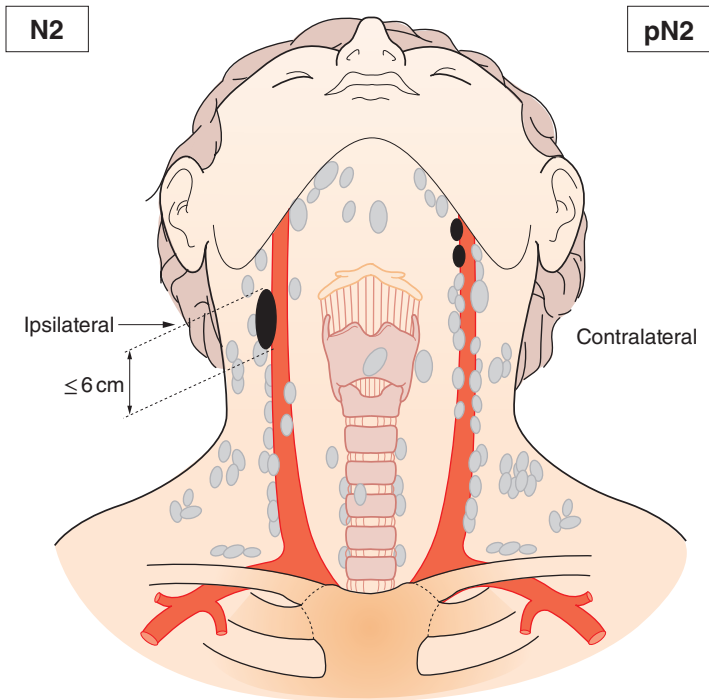


Fig. 54

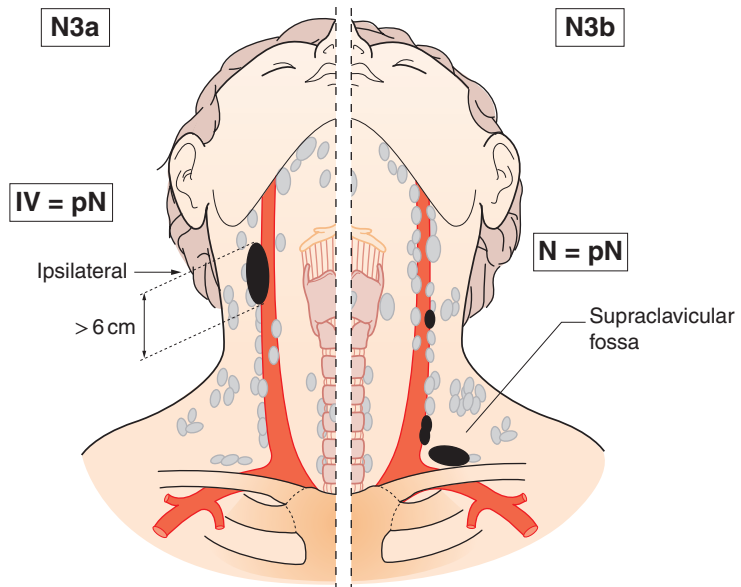


Fig. 55

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Pharynx

Oropharynx

- T1 ≤ 2 cm
- T2 > 2 to 4 cm
- T3 > 4 cm
- T4a Larynx, deep/extrinsic muscle of tongue, medial pterygoid, hard palate, mandible
- T4b Lateral pterygoid muscle, pterygoid plates, lateral nasopharynx, skull base, carotid artery

Hypopharynx

- T1 ≤ 2 cm and limited to one subsite
- T2 > 2 to 4 cm or more than one subsite
- T3 > 4 cm or with hemilarynx fixation
- T4a Thyroid/cricoid cartilage, hyoid bone, thyroid gland, oesophagus, central compartment soft tissue
- T4b Prevertebral fascia, carotid artery, mediastinal structures

(continued)

Pharynx (continued)

Oropharynx and Hypopharynx

- N1 Ipsilateral single ≤ 3 cm
- N2 (a) Ipsilateral single > 3 to 6 cm
(b) Ipsilateral multiple ≤ 6 cm
(c) Bilateral, contralateral ≤ 6 cm
- N3 > 6 cm

Nasopharynx

- T1 Nasopharynx, oropharynx, or nasal cavity
- T2 Parapharyngeal extension
- T3 Bony structures of skull base/paranasal sinuses
- T4 Intracranial, cranial nerves, hypopharynx, orbit, infratemporal fossa/masticator space
- N1 Unilateral cervical, unilateral or bilateral retropharyngeal lymph nodes, above supraclavicular fossa, ≤ 6 cm
- N2 Bilateral cervical above supraclavicular fossa, ≤ 6 cm
- N3a > 6 cm
- N3b Supraclavicular fossa

LARYNX (ICD-O C32.0, 1, 2, C10.1)

Rules for Classification

The classification applies only to carcinomas. There should be histological confirmation of the disease.

Anatomical Sites and Subsites

(Figs. 26, 27, and Figs. 56, 57)

1. Supraglottis (C32.1)

- | | |
|---|--|
| (i) Suprahyoid epiglottis [including tip, lingual (anterior) (C10.1), and laryngeal surfaces] | <i>Epilarynx (including marginal zone)</i> |
| (ii) Aryepiglottic fold, laryngeal aspect | |
| (iii) Arytenoid | |
| (iv) Infrahyoid epiglottis | <i>Supraglottis</i> |
| (v) Ventricular bands (false cords) | <i>excluding epilarynx</i> |

2. Glottis (C32.0)

- (i) Vocal cords
- (ii) Anterior commissure
- (iii) Posterior commissure

3. Subglottis (C32.2)

Regional Lymph Nodes

See Head and Neck Tumours.

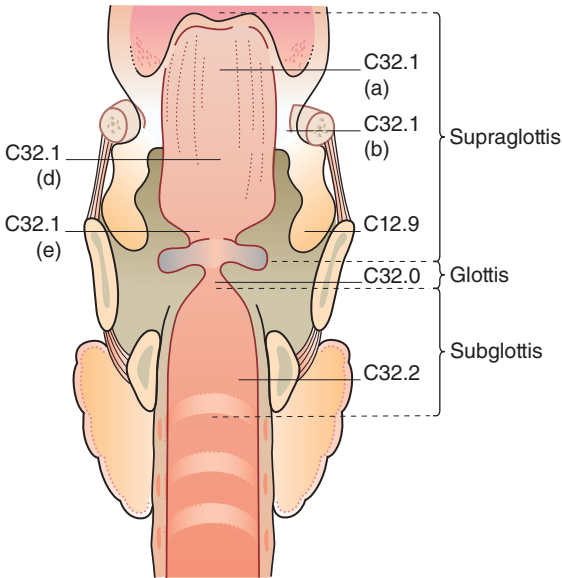


Fig. 56

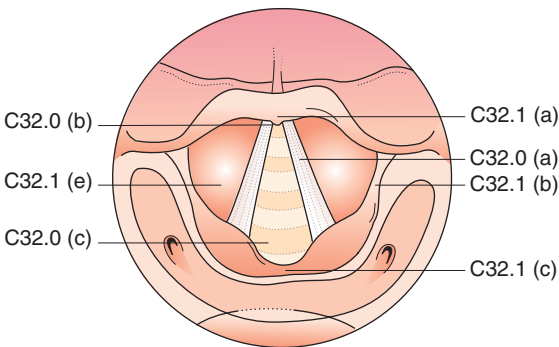


Fig. 57

TNM Clinical Classification

T – Primary Tumour

- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- Tis Carcinoma in situ

Supraglottis

- T1 Tumour limited to one subsite of supraglottis with normal vocal cord mobility (Figs. 58a, b, 59a, b)

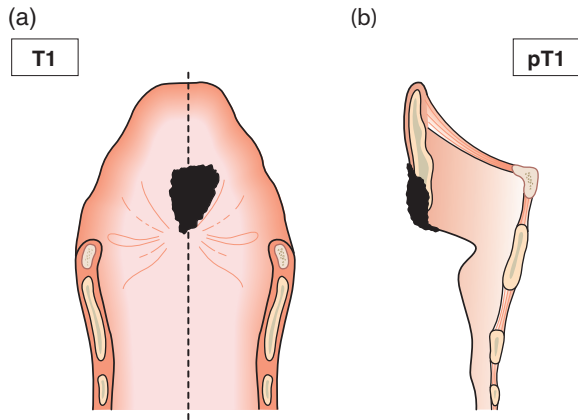


Fig. 58

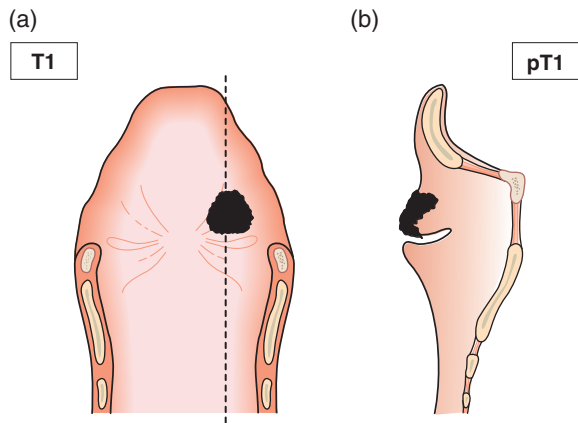


Fig. 59

T2 Tumour invades mucosa of more than one adjacent subsite of supraglottis or glottis or region outside the supraglottis (e.g., mucosa of base of tongue, vallecula, medial wall of piriform sinus) without fixation of the larynx (Figs. 60a, b, 61a, b)

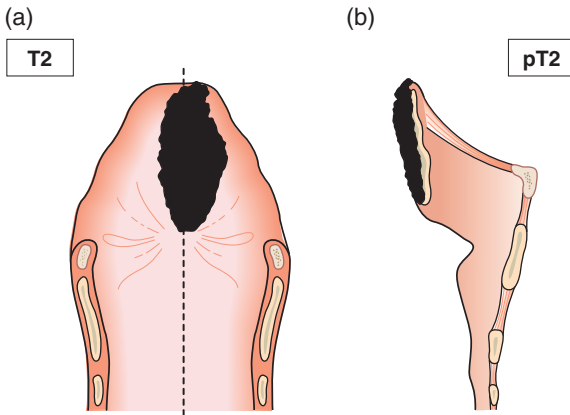


Fig. 60

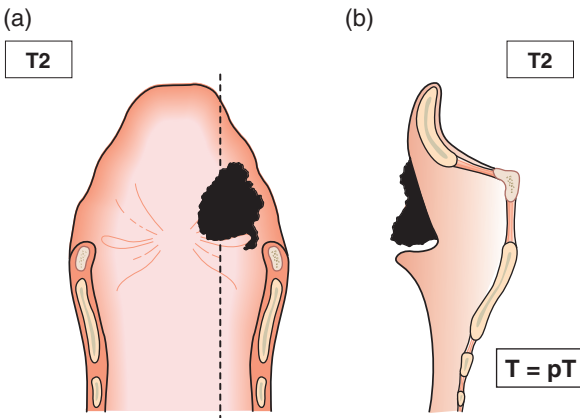


Fig. 61

T3 Tumour limited to larynx with vocal cord fixation and/or invades any of the following: postcricoid area, pre-epiglottic space, paraglottic space, and/or inner cortex of thyroid cartilage (Figs. 62a, b, 63a, b)

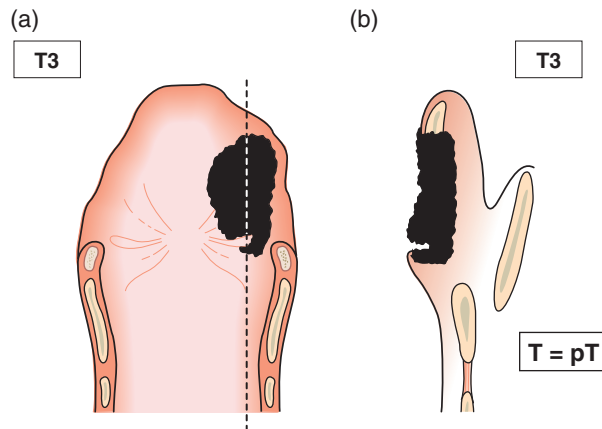


Fig. 62

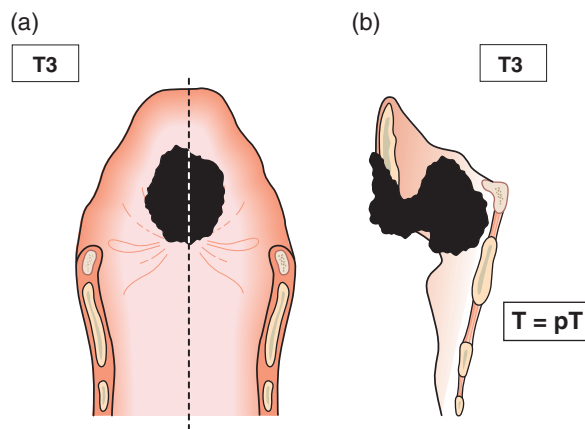


Fig. 63

- T4a Tumour invades through the thyroid cartilage and/or invades tissues beyond the larynx, e.g., trachea, soft tissues of neck including deep/extrinsic muscle of tongue (genioglossus, hyoglossus, palatoglossus, and styloglossus), strap muscles, thyroid, oesophagus (Fig. 64a, b)
- T4b Tumour invades prevertebral space, mediastinal structures, or encases carotid artery (Fig. 52)

Glottis

- T1 Tumour limited to vocal cord(s) (may involve anterior or posterior commissure) with normal mobility (Fig. 65a)
- T1a Tumour limited to one vocal cord (Fig. 65b)
- T1b Tumour involves both vocal cords (Fig. 65c)

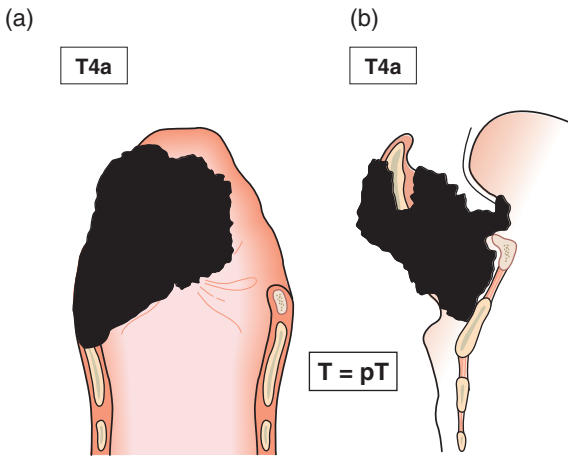


Fig. 64

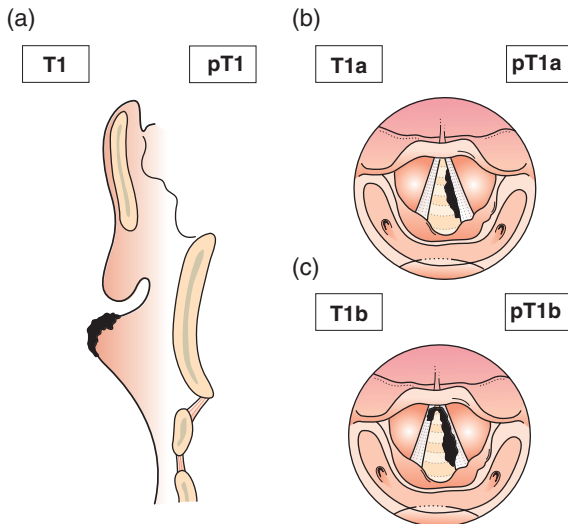


Fig. 65

- T2 Tumour extends to supraglottis and/or subglottis, and/or with impaired vocal cord mobility (Fig. 66a, b)
- T3 Tumour limited to larynx with vocal cord fixation and/or invades paraglottic space, and/or inner cortex of the thyroid cartilage (Fig. 67a, b)

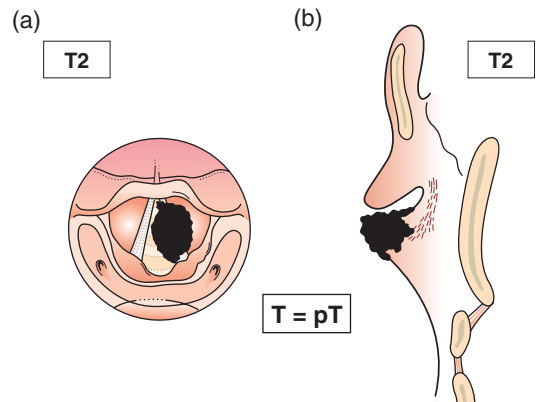


Fig. 66

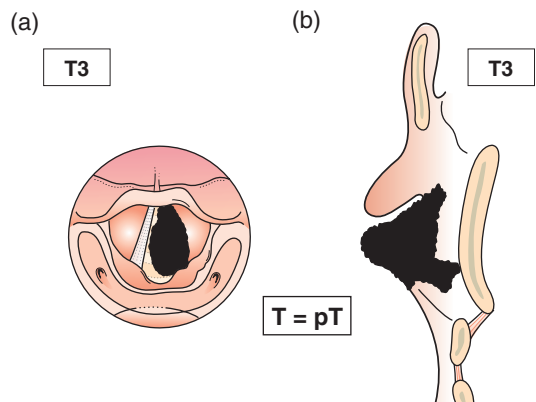


Fig. 67

- T4a Tumour invades through the outer cortex of the thyroid cartilage, and/or invades tissues beyond the larynx, e.g., trachea, soft tissues of neck including deep/extrinsic muscle of tongue (genioglossus, hyoglossus, palatoglossus, and styloglossus), strap muscles, thyroid, oesophagus (Fig. 68a, b)
- T4b Tumour invades prevertebral space, encases carotid artery, or mediastinal structures (Fig. 69)

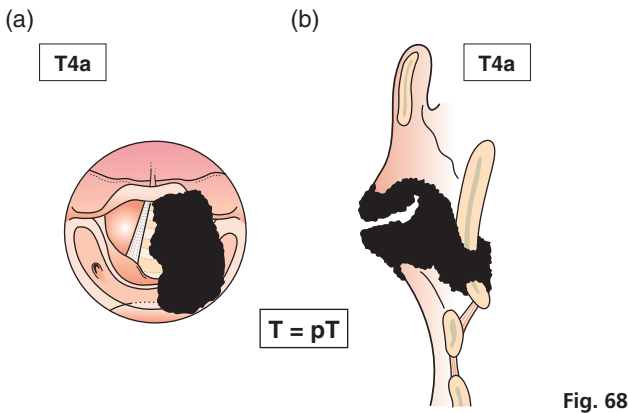


Fig. 68

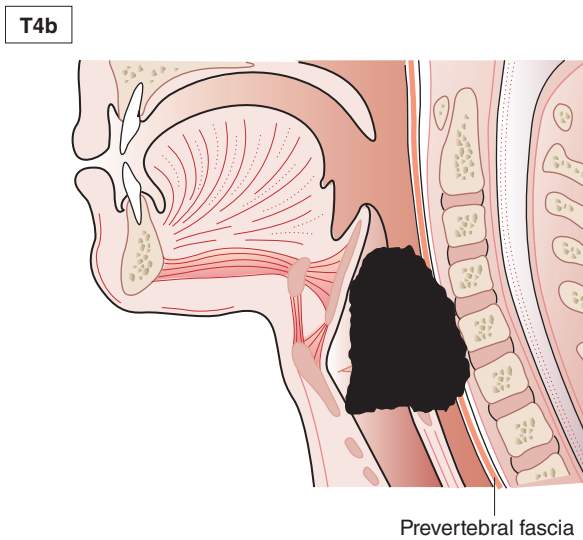


Fig. 69

Subglottis

- T1 Tumour limited to subglottis (Fig. 70a, b)
- T2 Tumour extends to vocal cord(s) with normal or impaired mobility (Fig. 71a, b)
- T3 Tumour limited to larynx with vocal cord fixation (Fig. 72)
- T4a Tumour invades cricoid or thyroid cartilage and/or invades tissues beyond the larynx, e.g., trachea, soft tissues of neck including deep/extrinsic muscle of tongue (genioglossus, hyoglossus, palatoglossus, and styloglossus), strap muscles, thyroid, oesophagus (Fig. 73)
- T4b Tumour invades prevertebral space, mediastinal structures, or encases carotid artery (Fig. 74)

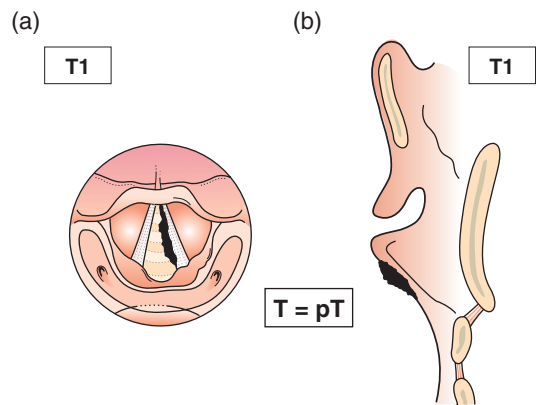


Fig. 70

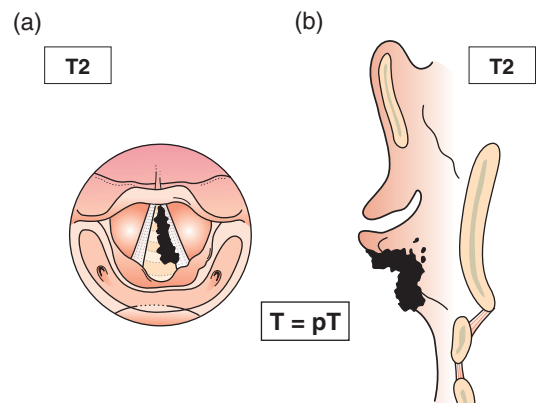


Fig. 71

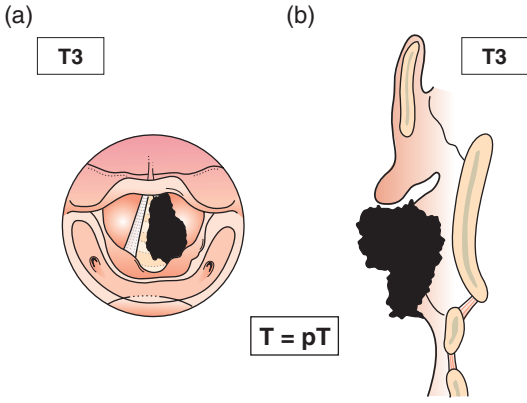


Fig. 72

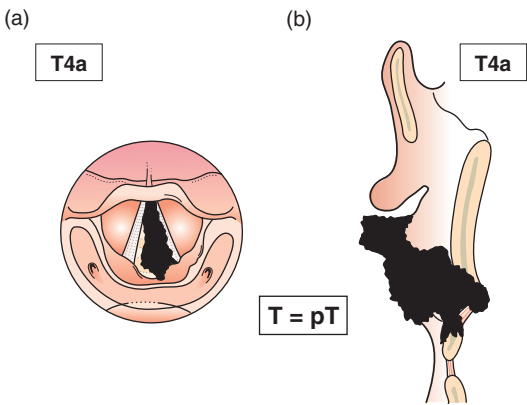


Fig. 73

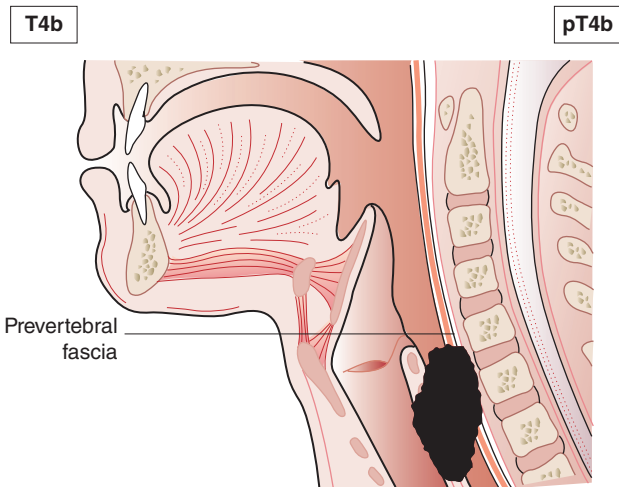


Fig. 74

N – Regional Lymph Nodes

See Head and Neck Tumours.

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Larynx

Supraglottis

- T1 One subsite, normal mobility
- T2 Mucosa of more than one adjacent subsite of supraglottis or glottis or adjacent region outside the supraglottis; without fixation
- T3 Cord fixation or invades postcricoid area, pre-epiglottic tissues, paraglottic space, thyroid cartilage erosion
- T4a Through thyroid cartilage; trachea, soft tissues of neck: deep/extrinsic muscle of tongue, strap muscles, thyroid, oesophagus
- T4b Prevertebral space, mediastinal structures, carotid artery

Glottis

- T1 Limited to vocal cord(s), normal mobility
 - (a) one cord
 - (b) both cords
- T2 Supraglottis, subglottis, impaired cord mobility
- T3 Cord fixation, paraglottic space, thyroid cartilage erosion
- T4a Through thyroid cartilage; trachea, soft tissues of neck: deep/extrinsic muscle of tongue, strap muscles, thyroid, oesophagus
- T4b Prevertebral space, mediastinal structures, carotid artery

Subglottis

- T1 Limited to subglottis
- T2 Extends to vocal cord(s) with normal/impaired mobility
- T3 Cord fixation
- T4a Through cricoid or thyroid cartilage; trachea, deep/extrinsic muscle of tongue, strap muscles, thyroid, oesophagus
- T4b Prevertebral space, mediastinal structures, carotid artery

All Sites

- N1 Ipsilateral single ≤ 3 cm
- N2
 - (a) Ipsilateral single > 3 to 6 cm
 - (b) Ipsilateral multiple ≤ 6 cm
 - (c) Bilateral, ≤ 6 cm
- N3 > 6 cm

NASAL CAVITY AND PARANASAL SINUSES (ICD-O C30.0, 31.0, 1)

Rules for Classification

The classification applies only to carcinomas. There should be histological confirmation of the disease.

Anatomical Sites and Subsites

1. Nasal Cavity (C30.0) (Fig. 75)

- Septum
- Floor
- Lateral wall
- Vestibule

2. Maxillary Sinus (C31.0) (Fig. 76)

3. Ethmoid Sinus (C31.0) (Fig. 76)

- Left
- Right

Regional Lymph Nodes

See Head and Neck Tumours.

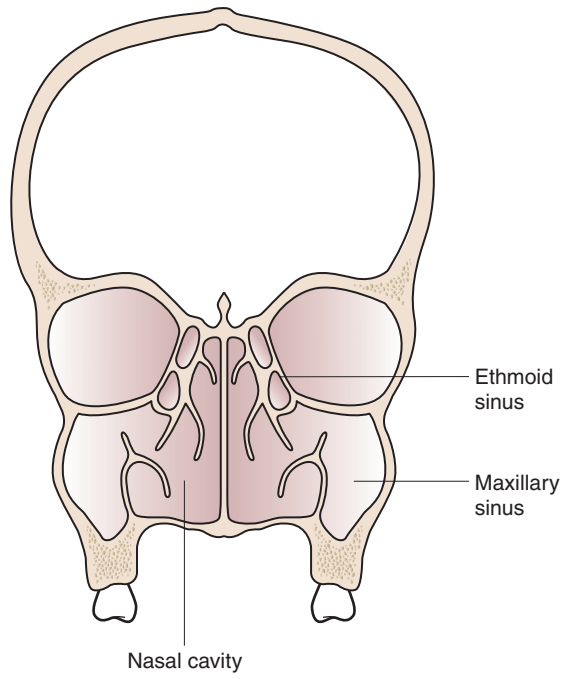


Fig. 75

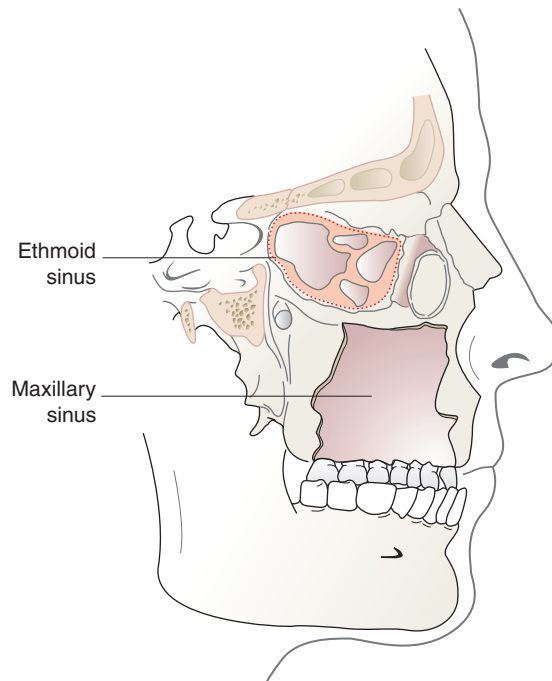


Fig. 76

TN Clinical Classification

T – Primary Tumour

- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- Tis Carcinoma in situ

Maxillary Sinus

- T1 Tumour limited to the mucosa with no erosion or destruction of bone (Fig. 77)
- T2 Tumour causing bone erosion or destruction, including extension into the hard palate and/or middle nasal meatus, except extension to posterior wall of maxillary sinus and pterygoid plates (Fig. 78)

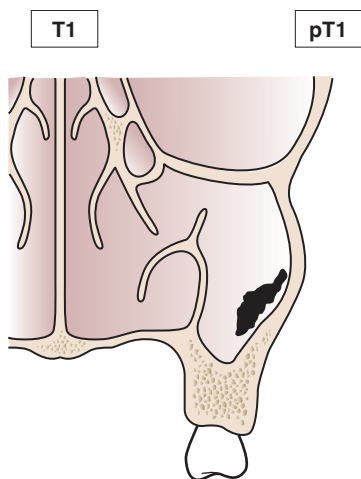


Fig. 77

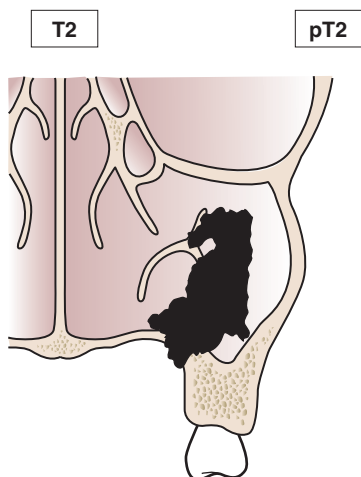


Fig. 78

T3 Tumour invades any of the following: bone of posterior wall of maxillary sinus, subcutaneous tissues, floor or medial wall of orbit, pterygoid fossa, ethmoid sinuses (Figs. 79, 80)

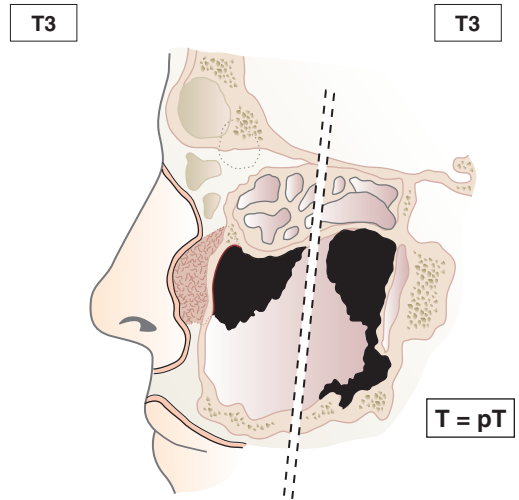


Fig. 79

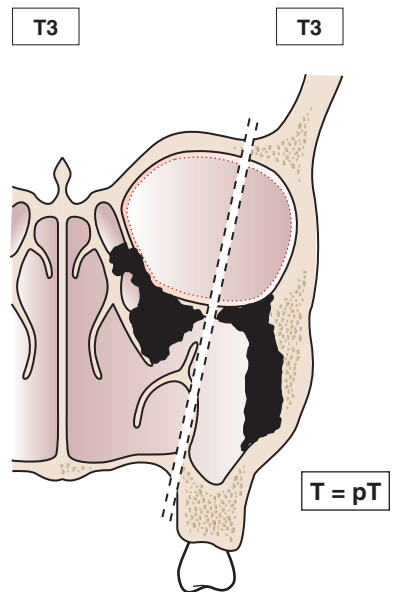


Fig. 80

T4a Tumour invades any of the following: anterior orbital contents, skin of cheek, pterygoid plates, infratemporal fossa, cribriform plate, sphenoid or frontal sinuses (Figs. 81, 82)

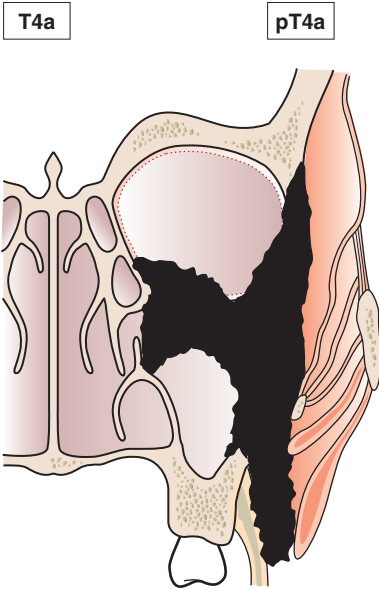


Fig. 81

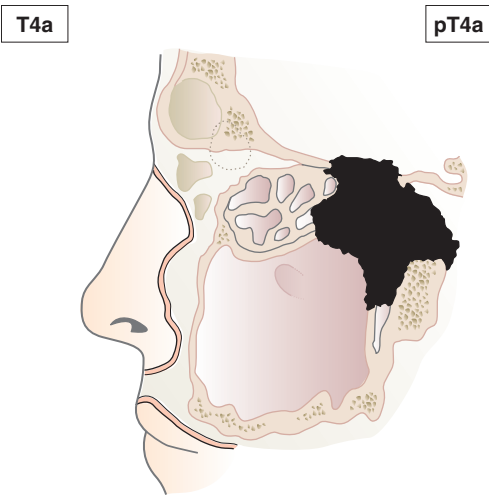


Fig. 82

- T4b Tumour invades any of the following: orbital apex, dura, brain, middle cranial fossa, cranial nerves other than maxillary division of trigeminal nerve (V2), nasopharynx, or clivus (Fig. 83)

T4b

pT4b

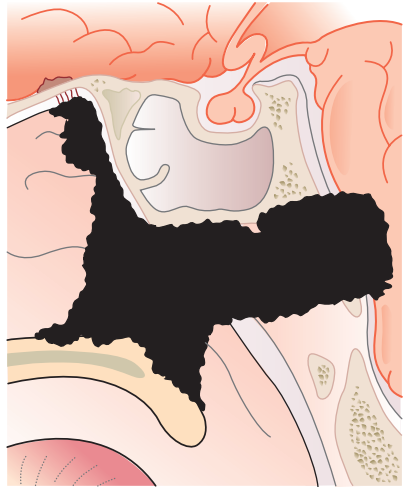


Fig. 83

Nasal Cavity and Ethmoid Sinus

T1 Tumour restricted to one subsite of nasal cavity or ethmoid sinus, with or without bony invasion (Figs. 84, 85)

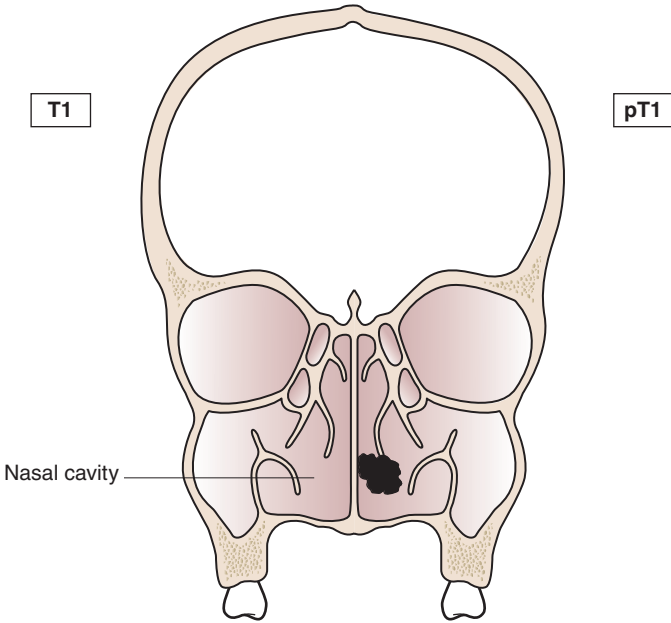


Fig. 84

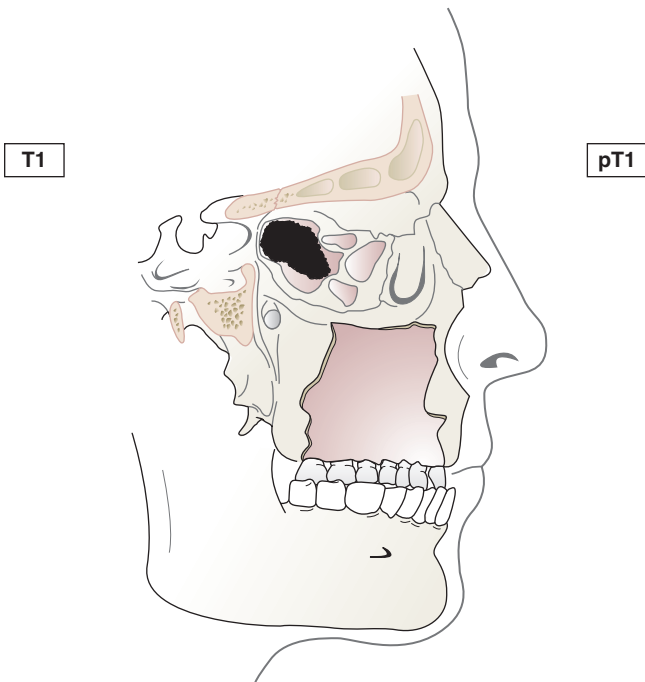


Fig. 85

- T2 Tumour involves two subsites in a single site or extends to involve an adjacent site within the nasoethmoidal complex, with or without bony invasion (Fig. 86)
- T3 Tumour extends to invade the medial wall or floor of the orbit, maxillary sinus, palate, or cribriform plate (Fig. 87)

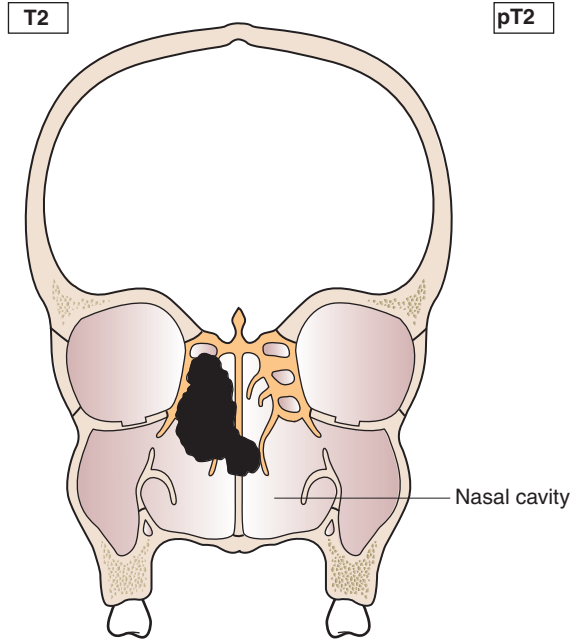


Fig. 86

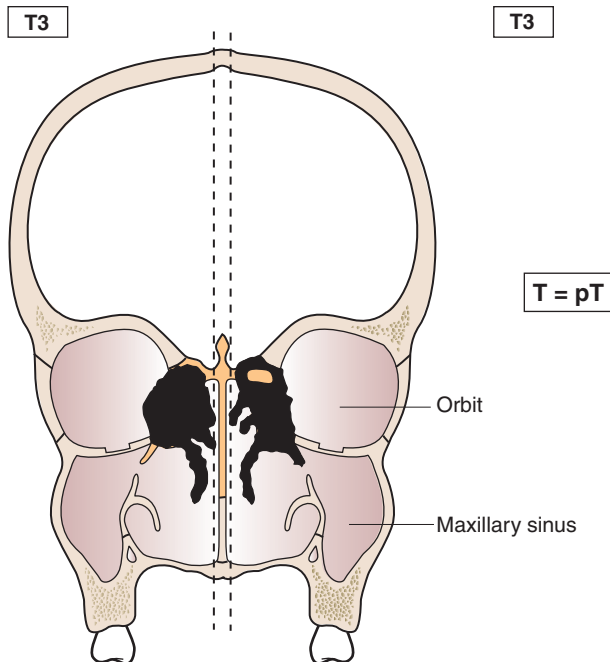


Fig. 87

- T4a Tumour invades any of the following: anterior orbital contents, skin of nose or cheek, minimal extension to anterior cranial fossa, pterygoid plates, sphenoid or frontal sinuses (Fig. 88)
- T4b Tumour invades any of the following: orbital apex, dura, brain, middle cranial fossa, cranial nerves other than V2, nasopharynx, or clivus (Fig. 89)

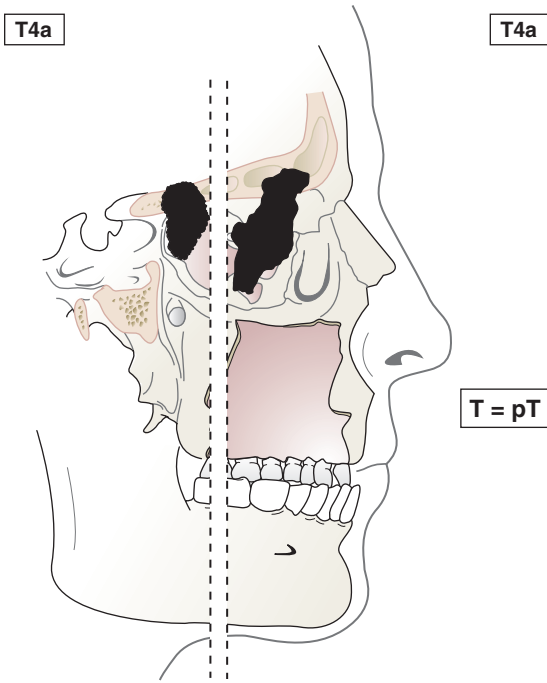


Fig. 88

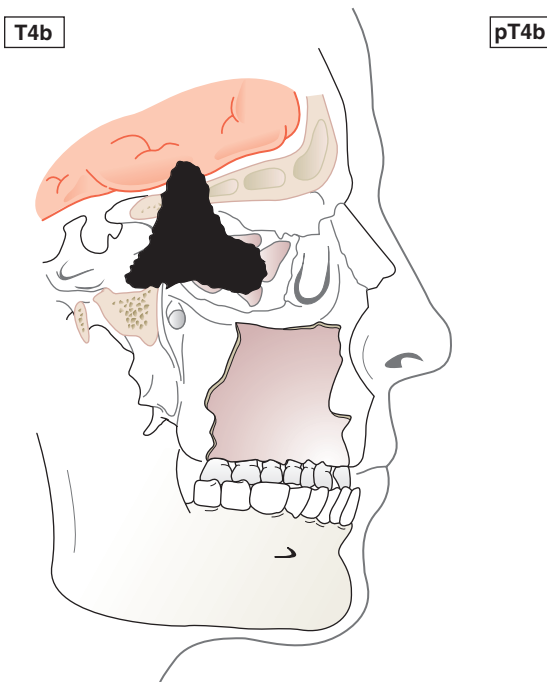


Fig. 89

Regional Lymph Nodes

See Head and Neck Tumours.

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Nasal Cavity and Paranasal Sinuses

Maxillary Sinus

T1	Mucosa
T2	Bone erosion/destruction, hard palate, middle nasal meatus
T3	Posterior bony wall maxillary sinus, subcutaneous tissues, floor/medial wall of orbit, pterygoid fossa, ethmoid sinus
T4a	Anterior orbit, cheek skin, pterygoid plates, infra-temporal fossa, cribriform plate, sphenoid/frontal sinus
T4b	Orbital apex, dura, brain, middle cranial fossa, cranial nerves other than V2, nasopharynx, clivus

Nasal Cavity and Ethmoid Sinus

T1	One subsite
T2	Two subsites or adjacent nasoethmoidal site
T3	Medial wall/floor orbit, maxillary sinus, palate, cribriform plate
T4a	Anterior orbit, skin of nose/cheek, anterior cranial fossa (minimal), pterygoid plates, sphenoid/frontal sinuses
T4b	Orbital apex, dura, brain, middle cranial fossa, cranial nerves other than V2, nasopharynx, clivus

All Sites

N1	Ipsilateral single < 3 cm
N2	(a) Ipsilateral single > 3 to 6 cm (b) Ipsilateral multiple ≤ 6 cm (c) Bilateral, contralateral ≤ 6 cm
N3	> 6 cm

MALIGNANT MELANOMA OF UPPER AERODIGESTIVE TRACT (ICD-O C00–06, 10–14, 30–32)

Rules for Classification

The classification applies only to mucosal malignant melanomas of the head and neck region, i.e., of the upper aerodigestive tract. There should be histological confirmation of the disease and division of cases by site.

Regional Lymph Nodes

The regional lymph nodes are those appropriate to the site of the primary tumour. See Head and Neck Tumours.

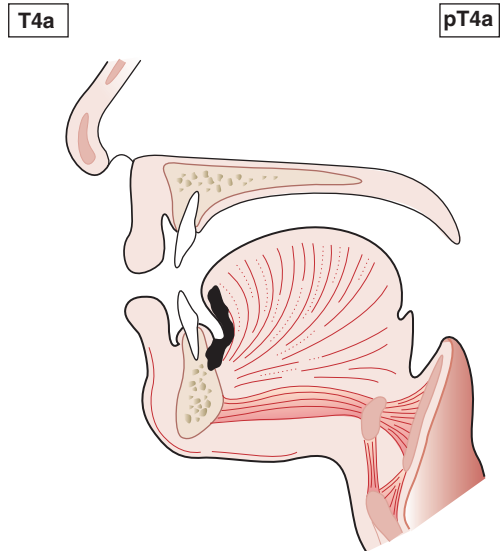
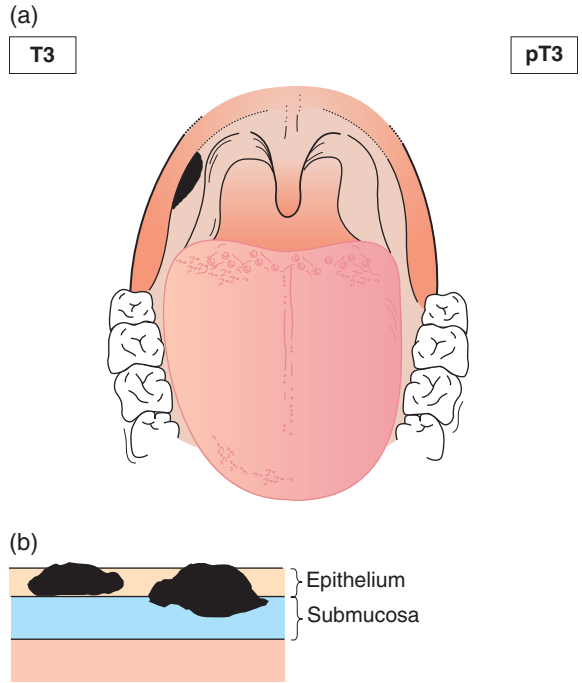
TN Clinical Classification

T – Primary Tumour

- | | |
|-----|--|
| TX | Primary tumour cannot be assessed |
| T0 | No evidence of primary tumour |
| T3 | Tumour limited to the epithelium and/or submucosa (mucosal disease) (Fig. 90) |
| T4a | Tumour invades deep soft tissue, cartilage, bone, or overlying skin (Fig. 91) |
| T4b | Tumour invades any of the following: brain, dura, skull base, lower cranial nerves (IX, X, XI, XII), masticator space, carotid artery, prevertebral space, mediastinal structures (Fig. 92a,b) |

Note

Mucosal melanomas are aggressive tumours, therefore T1 and T2 are omitted as are stages I and II (Figs. 91, 92)



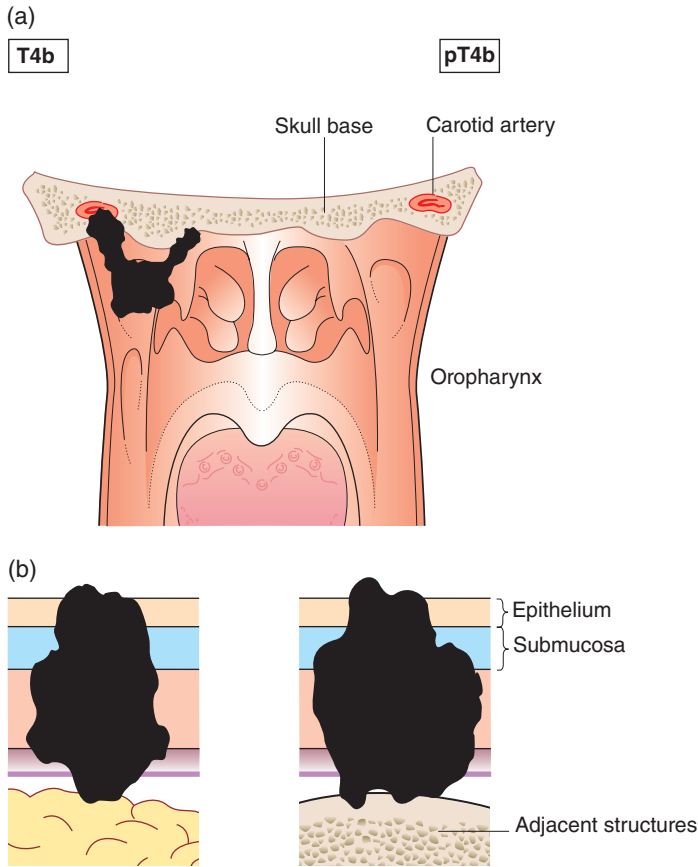


Fig. 92

Regional Lymph Nodes

- NX Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastasis
- N1 Regional lymph node metastasis

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Melanoma: Upper Aerodigestive Tract

- T3 Epithelium/submucosa (mucosal disease)
- T4a Deep soft tissue, cartilage, bone, or overlying skin
- T4b Brain, dura, skull base, lower cranial nerves, masticator space, carotid artery, prevertebral space, mediastinal structures

MAJOR SALIVARY GLANDS

(ICD-O C07, C08)

Rules for Classification

The classification applies only to carcinomas of the major salivary glands. Tumours arising in minor salivary glands (mucus-secreting glands in the lining membrane of the upper aerodigestive tract) are not included in this classification but at their anatomic site of origin, e.g., lip. There should be histological confirmation of the disease.

Anatomical Sites

- Parotid gland (C07.9)
- Submandibular (submaxillary) gland (C08.0)
- Sublingual gland (C08.1)

Regional Lymph Nodes

See Head and Neck Tumours.

TN Clinical Classification

T – Primary Tumour

TX	Primary tumour cannot be assessed
T0	No evidence of primary tumour
T1	Tumour 2 cm or less in greatest dimension without extraparenchymal extension* (Fig. 93)
T2	Tumour more than 2 cm but not more than 4 cm in greatest dimension without extraparenchymal extension* (Fig. 94)

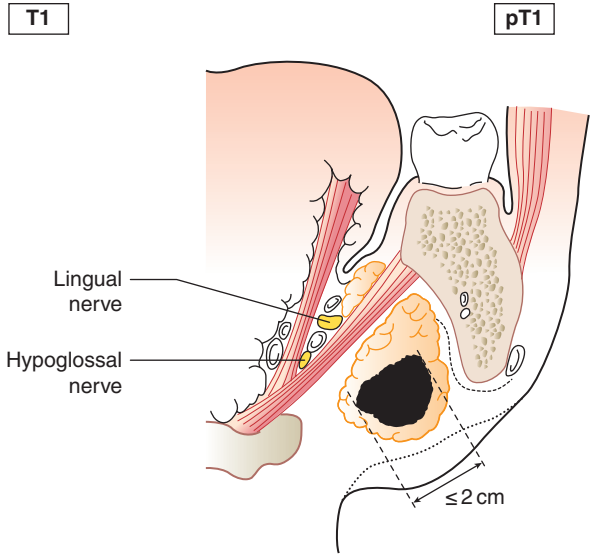


Fig. 93

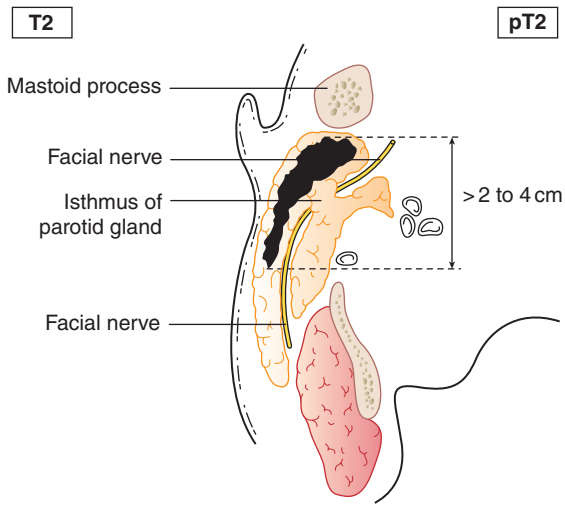


Fig. 94

T3 Tumour more than 4 cm and/or tumour with extraparenchymal extension* (Figs. 95, 96)

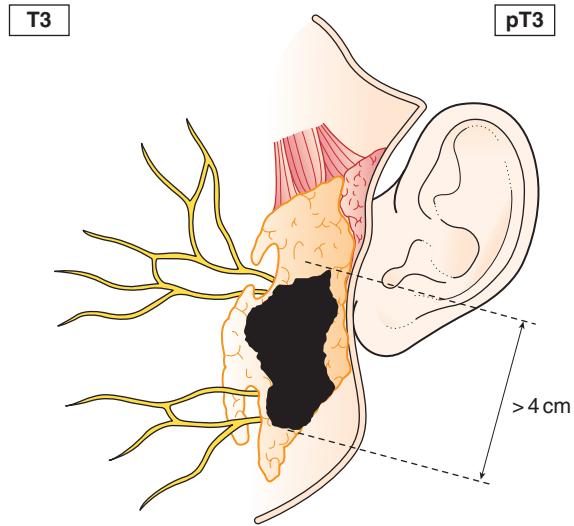


Fig. 95

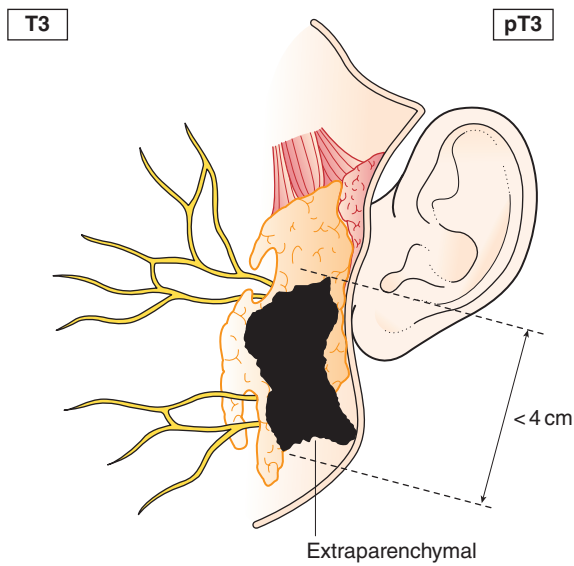


Fig. 96

- T4a Tumour invades skin, mandible, ear canal, and/or facial nerve (Fig. 97)
- T4b Tumour invades base of skull, and/or pterygoid plates, and/or encases carotid artery (Fig. 98)

Note

*Extraparenchymal extension is clinical or macroscopic evidence of invasion of soft tissues or nerve, except those listed under T4a and 4b. Microscopic evidence alone does not constitute extraparenchymal extension for classification purposes.

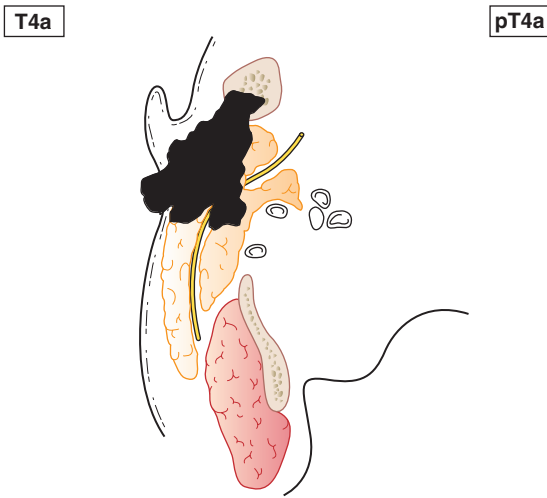


Fig. 97

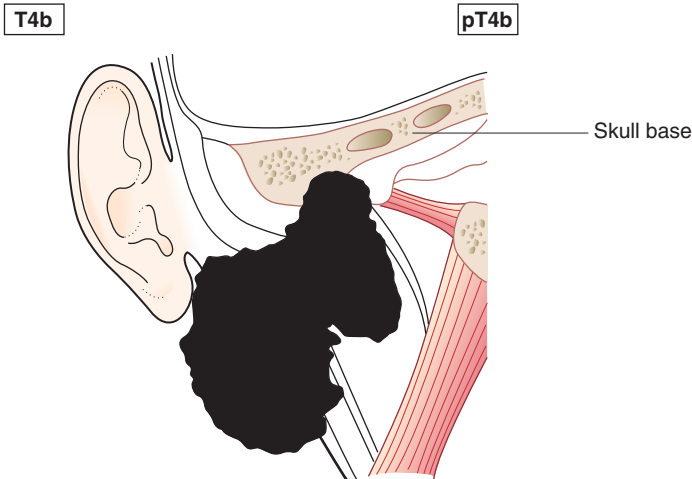


Fig. 98

Regional Lymph Nodes

The regional lymph nodes are the cervical nodes.

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Summary

Salivary Glands

T1	≤ 2 cm, without extraparenchymal extension
T2	> 2 to 4 cm, without extraparenchymal extension
T3	> 4 cm and/or extraparenchymal extension
T4a	Skin, mandible, ear canal, facial nerve
T4b	Skull, pterygoid plates, carotid artery
N1	Ipsilateral single ≤ 3 cm
N2	(a) Ipsilateral single > 3 to 6 cm (b) Ipsilateral multiple : ≤ 6 cm (c) Bilateral, contralateral ≤ 6 cm
N3	> 6 cm

THYROID GLAND (ICD-O C73) (FIG. 99)

Rules for Classification

The classification applies only to carcinomas. There should be microscopic confirmation of the disease and division of cases by histological type.

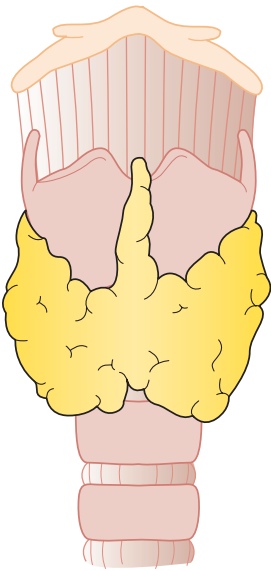


Fig. 99

Regional Lymph Nodes (Fig. 100)

The regional lymph nodes are the cervical and upper/superior mediastinal nodes

TN Clinical Classification

T – Primary Tumour

- TX Primary tumour cannot be assessed
- T0 No evidence of primary tumour
- T1 Tumour 2 cm or less in greatest dimension, limited to the thyroid (Fig. 101)
 - T1a Tumour 1 cm or less in greatest dimension, limited to the thyroid
 - T1b Tumour more than 1 cm but not more than 2 cm in greatest dimension, limited to the thyroid
- T2 Tumour more than 2 cm but not more than 4 cm in greatest dimension, limited to the thyroid (Fig. 102)

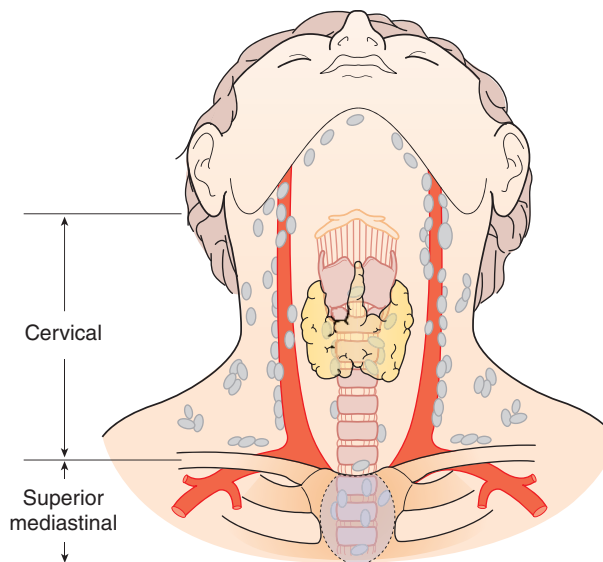


Fig. 100

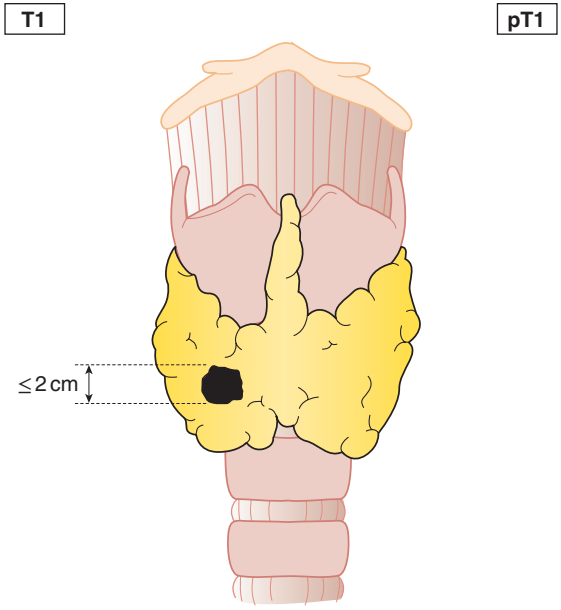


Fig. 101

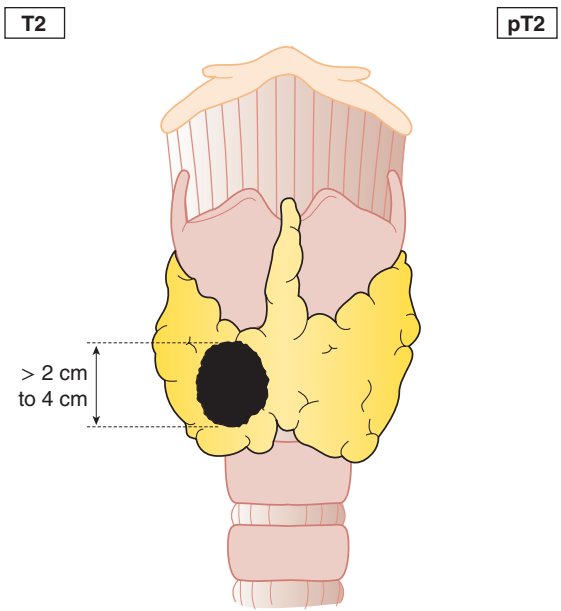


Fig. 102

T3 Tumour more than 4 cm in greatest dimension, limited to the thyroid or any tumour with minimal extrathyroid extension (e.g., extension to sternothyroid muscle or perithyroid soft tissues) (Figs. 103, 104)

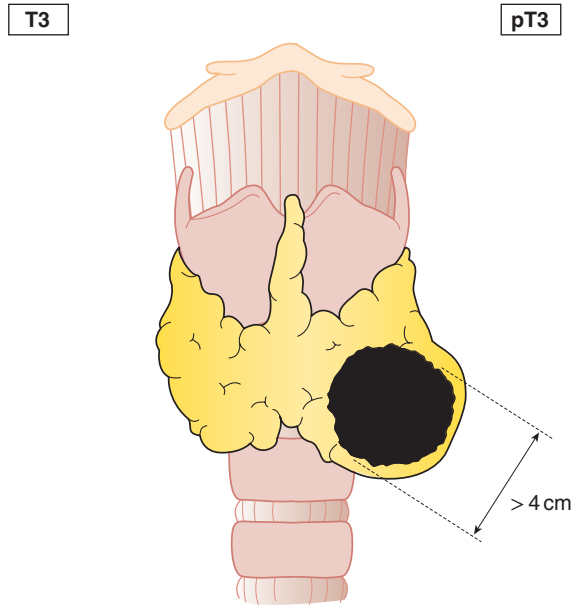


Fig. 103

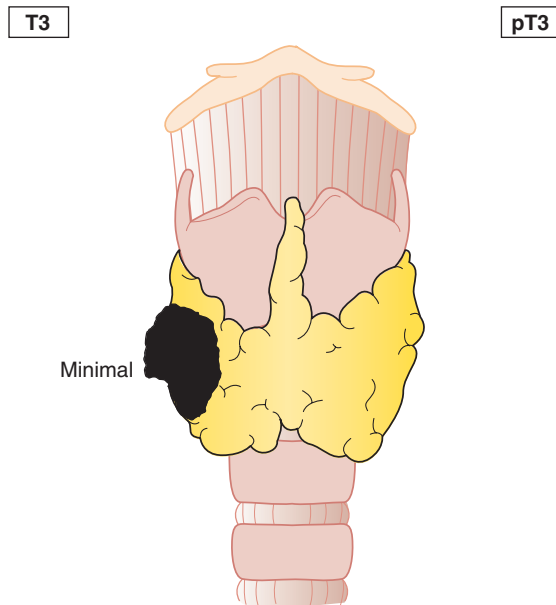


Fig. 104

- T4a Tumour extends beyond the thyroid capsule and invades any of the following: subcutaneous soft tissues, larynx, trachea, oesophagus, recurrent laryngeal nerve (Fig. 105)
- T4b Tumour invades prevertebral fascia, mediastinal vessels, or encases carotid artery (Fig. 106)

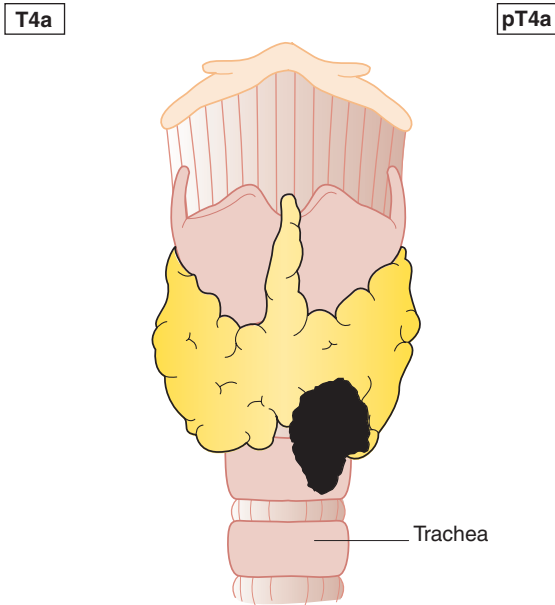


Fig. 105

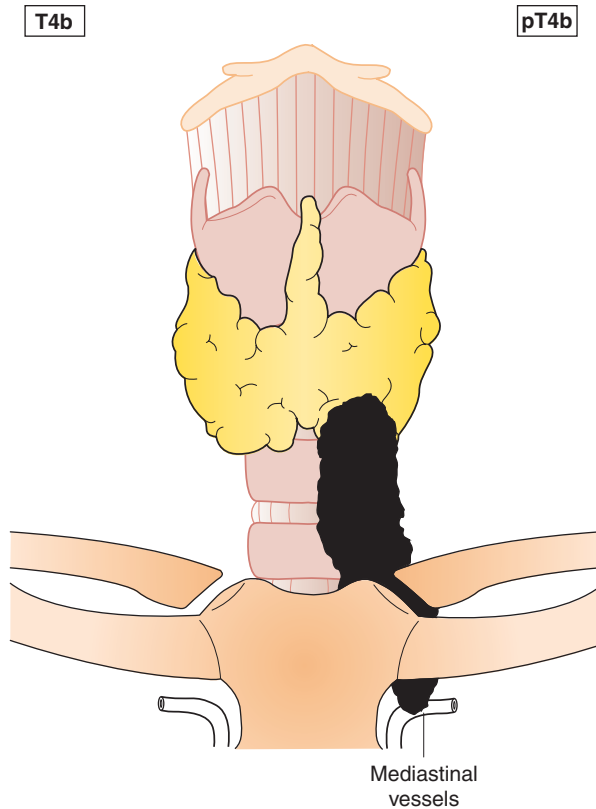


Fig. 106

All anaplastic carcinomas are considered T4 tumours

- T4a* (anaplastic carcinoma only) Tumour (any size) limited to the thyroid
 T4b* (anaplastic carcinoma only) Tumour (any size) extends beyond the thyroid capsule

Notes

Multifocal tumours of all histological types should be designated (m) (the largest determines the classification), e.g., T2(m).

*All anaplastic/undifferentiated thyroid carcinomas are considered T4.

**Intrathyroidal anaplastic carcinoma – considered surgically resectable.

***Extrathyroidal anaplastic carcinoma – considered surgically unresectable.

N – Regional Lymph Nodes

- NX Regional lymph nodes cannot be assessed
- N0 No regional lymph node metastasis
- N1 Regional lymph node metastasis
 - N1a Metastasis in Level VI (pretracheal, paratracheal, and prelaryngeal/Delphian lymph nodes) (Fig. 107)
 - N1b Metastasis in other unilateral, bilateral or contralateral cervical (levels I, II, III, IV, or V) or retropharyngeal or superior mediastinal lymph nodes (Fig. 108)

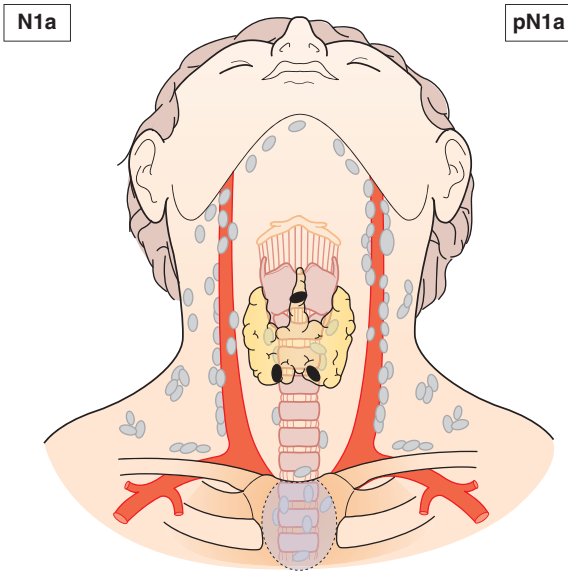


Fig. 107

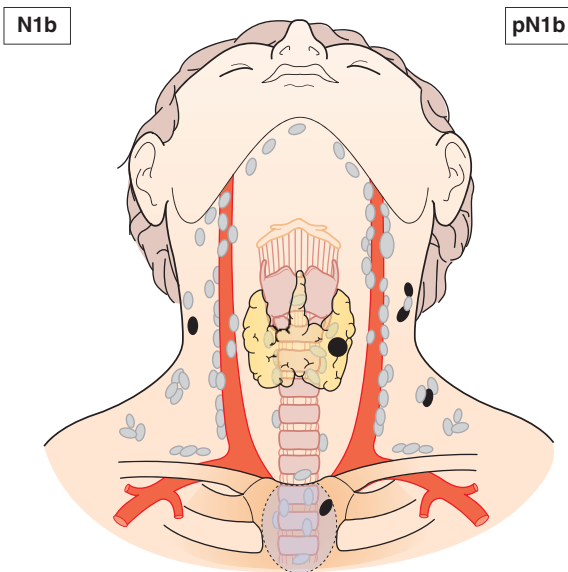


Fig. 108

pTN Pathological Classification

The pT and pN categories correspond to the T and N categories.

Histopathologic Types

The four major histopathologic types are:

- Papillary carcinoma (including those with follicular foci)
- Follicular carcinoma (including so-called Hürthle cell carcinoma)
- Medullary carcinoma
- Anaplastic/undifferentiated carcinoma

Summary

Thyroid Gland

Papillary, Follicular, and Medullary Carcinoma

T1	≤ 2 cm, intrathyroidal
T2	>2 to 4 cm, intrathyroidal
T3	>4 cm or minimal extension
T4a	Subcutaneous, larynx, trachea, oesophagus, recurrent laryngeal nerve
T4b	Prevertebral fascia, mediastinal vessels, carotid artery

Anaplastic/Undifferentiated Carcinoma

T4a	Tumour limited to thyroid
T4b	Tumour beyond thyroid capsule

All Types

N1a	Level VI
N1b	Other regional