

## Index

- adenoids 95
- adenoma 81
- alcohol 2–4
- alveolar ridge 74
- anterior commissure 56
- arytenoid cartilage 54–55, 56, 65, 146
- Belgium 2
- biopsy 120
- bone
  - metastases 127
  - post-treatment necrosis 109, 144–145
- brain
  - primary spread to 14, 97, 99, 101
  - temporal lobe necrosis 107–108,
- branchial cleft cysts 84
- buccal mucosa 75
- calcification of lymph nodes 120
- carcinogens 3, 5
- carcinoma in situ 7,
- carotid artery 64, 96
- carotid space 96, 99
- cartilage *see* arytenoid, cricoid *and* thyroid cartilage
- cerebral edema 107
- cetuximab 23
- chemoradiotherapy 19, 22–25, 122
- chest, metastasis to 52, 126–127
- Chinese ethnicity 94
- clinical presentation 9–15, 35–36, 84, 96
- colon cancer 129
- complications of treatment 24, 106–109, 135–137, 144–148
- computed tomography (CT)
  - diagnostic evaluation of primary sites 48–64, 67–92
  - metastasis
    - distant 126
    - regional lymph nodes 118, 121, 142
  - planning of treatment 24–28, 29
  - post-treatment
    - complications 135–137, 144, 146
    - recurrence 105, 138, 140, 142
    - treatment verification 31, 32
- conformal radiation therapy 24–28
- cranial nerves, spread to 14, 75, 82, 99, 101
- cricoid cartilage 54–55, 56, 57, 65, 146
- CT *see* computed tomography
- cysts 84
- dental fillings 68, 69
- dentures, loss of fit 15
- diagnosis
  - clinical presentation 9–15, 35–36, 84, 96
  - imaging 48–65, 67–92, 96–104, 114–125, 126–130
- diet 4
- diffusion-weighted MRI 123, 140, 143, 148
- diplopia 14
- Doppler ultrasound 118, 120
- dynamic contrast-enhanced MRI 124
- dysplasia 6
- earache (otalgia) 9, 11, 14
- epidemiology 1–5, 16, 94, 125
- epidermal growth factor receptor 23
- epiglottis 50, 54
  - see also* supraglottis
- Epstein–Barr virus 4
- erythroplakia 5
- esophagus 46, 62
- ethnicity 2, 94
- etiology 2–5, 73
- eustachian tube 14, 95, 96
- evaluation 48–51, 67–68
  - hypopharyngeal cancer 51, 59–64
  - laryngeal cancer 49, 53–59, 65
  - metastasis 114–130
  - nasopharyngeal cancer 96–104
  - oral cavity cancer 68–82
  - oropharyngeal cancer 83–92
- extranodal neoplastic spread 118

## 152 Index

- fibrosis 105
- fistula 144,
- floor of mouth 77–79, 80
- follow-up 15–16
  - complications 106–109, 135–137, 144–148
  - recurrence 104–106, 108, 138, 144
- foramen lacerum 96, 101
- foramen ovale 96, 101
- fossa of Rosenmüller 95, 96
- functional imaging 108, 123–125, 140, 143, 148
  - see also* positron emission spectroscopy
- gender 2, 94
- geographical variations 2, 94
- gingiva 70, 72
- gingivobuccal sulcus 73
- glossopharyngeal sulcus 90
- glottis 9, 11, 41, 56–57
- hard palate 80–82
- hemiglossectomy 38
- hilum, lymph node 118
- histopathology 6–8
- hoarseness 9, 11
- Human papilloma virus 4
- hypopharyngeal cancer 43
  - clinical presentation 9
  - diagnostic imaging 51, 59–64
  - incidence 2
  - metastasis 116
  - staging 53
  - treatment 45–46, 62
- hypoxia, imaging of 28
- imaging
  - diagnostic evaluation 48–65, 67–92, 96–104
  - metastases
    - distant 126–130,
    - nodal 63–64, 104, 114–125, 130
    - planning of treatment 24–31, 122
    - post-treatment 135, 148
    - complications 107–108, 109, 135–137, 138, 144–148
    - recurrence 104–106, 108, 138, 144
- immunotherapy 23
- incidence 1–2, 16, 94
- intensity-modulated radiation therapy 24–25
- keratin 8
- laryngeal necrosis 145–148
- laryngeal cancer
  - clinical presentation 9–10, 41
  - diagnostic imaging 49, 53–59, 65
  - incidence 1, 2
  - metastasis 116
  - staging 12, 52
  - subtypes 50
    - glottic 9, 11, 41, 56–57
    - subglottic 57–59
    - supraglottic 9–10, 41, 53–55, 139
    - treatment 42–43, 53, 57
- leukoplakia 5–6,
- lip 70, 71
- liver metastasis 127
- lymph node metastasis
  - biopsy 120
  - classification and staging 15, 22, 114, 117
  - clinical presentation 9, 35
  - imaging 63–64, 104, 114–125, 130
  - site of origin and 10, 116
  - treatment 36, 121–122, 138
- lymphoma 84
- magnetic resonance imaging (MRI)
  - diagnostic evaluation of primary sites 64–65, 68, 71, 75, 80, 82, 96–101
  - metastasis 118, 121, 123–125, 143
  - planning of treatment 27, 29, 30
  - post-treatment
    - complications 108, 135–137, 145, 146
    - recurrence 105, 138, 140, 143
- magnetic resonance spectroscopy (MRS) 108, 124
- mandible
  - carcinoma of the alveolar ridge 74
  - radionecrosis 109, 144–145
  - surgery 37, 39, 40
- mandibular nerve 71, 75, 97, 101
- maxillary nerve 82, 92, 99
- maxillary sinus 14
- men 2, 94
- mental nerve 71, 72
- metastasis
  - distant 23, 104, 125–130,
  - regional *see* lymph node metastasis
- modified radical neck dissection 36, 121, 138
- mouth *see* oral cavity
- MRI *see* magnetic resonance imaging
- MRS *see* magnetic resonance spectroscopy
- mucoepidermoid carcinoma 81
- multidetector CT 48–51
- N*-acetyl-aspartate 108
- nasopharyngeal anatomy 94–96
- nasopharyngeal cancer
  - clinical presentation 11, 14
  - diagnostic imaging 96–106
  - follow-up
    - complications of treatment 106–109
    - recurrence 104–106
  - metastasis 104, 116
  - prognosis 102–104
  - risk factors 4
  - staging 98,
- nasosinus cancer 11, 14

- necrosis  
 bone 109, 144–145  
 laryngeal 145–148  
 lymph node metastases 118  
 temporal lobe 107–108,  
 neuropathy *see* perineural spread  
 NPC *see* nasopharyngeal cancer  
 nutrition 4
- occupational risk factors 5
- oral cavity cancer  
 clinical presentation 10, 36  
 diagnostic imaging 67–82  
 epidemiology 3  
 metastasis 116  
 staging 70  
 treatment 37
- orbit, spread into 14, 97
- oropharyngeal cancer  
 clinical presentation 10, 11, 37  
 diagnostic imaging 13, 83–92  
 metastasis 116  
 risk factors 4  
 staging 86  
 treatment 39, 140, 143
- osteoradionecrosis 109, 144–145
- otalgia 9, 11, 14
- papillary cancer 7
- parapharyngeal space 96, 97
- perineural spread  
 nasopharyngeal cancer 97, 101  
 oral cavity cancer 71, 72, 82  
 oropharyngeal cancer 92
- PET *see* positron emission tomography
- pharyngeal cancer 3  
*see also* hypopharyngeal cancer; nasopharyngeal  
 cancer; oropharyngeal cancer
- pharyngobasilar fascia 94
- phonation maneuver 49, 53
- piriform sinus cancer 60, 62–63, 136
- planning of radiation therapy 24–31
- positron emission tomography (PET)  
 diagnostic evaluation of primary sites 86, 91  
 second primary tumors 129  
 metastases  
 distant 129  
 regional nodes 122–123, 142  
 planning of treatment 28–29  
 post-treatment 106, 108, 140, 142
- posterior commissure 56
- PPF *see* pterygopalatine fossa
- pre-epiglottic space 51, 54, 56
- pre-malignant lesions 5–7
- prognosis 4, 8, 114  
 nasopharyngeal cancer 102–104
- pterygopalatine fossa (PPF) 82, 96, 99
- “puff-cheek” technique 73,
- pyriform sinus cancer 60, 62–63, 136
- radiation therapy 19  
 alone 20, 21, 37  
 chemoradiotherapy 19, 22–25, 122  
 complications 106–109, 135–137, 144–148  
 postoperative 37  
 use of imaging in planning 24–31
- radiation-induced tumors 108
- radical neck dissection 36, 122, 138
- reconstructive surgery  
 hypopharynx 46  
 oral cavity 37, 38, 39  
 pharynx 45, 46, 137  
 voice restoration 43, 46
- recurrence 104–106, 108, 138, 144
- retromolar trigone 75, 76,
- retropharyngeal lymph nodes 96, 121
- risk factors 2–5
- salivary glands 77, 81
- SCC *see* squamous cell carcinoma
- second primary tumors 16, 129
- selective neck dissection 36, 121, 138
- skin cancer 1, 116
- skull, intracranial spread 14, 97, 99, 101
- smoking 2–3
- socio-economic status 4
- soft palate 91–92
- spinal accessory nerve 36, 138
- spine 99
- squamous cell carcinoma *see specific cancers*
- staging 22, 117  
 hypopharyngeal cancer 53  
 laryngeal cancer 12, 52  
 nasopharyngeal cancer 98,  
 oral cavity cancer 70  
 oropharyngeal cancer 86
- subglottis 57–59
- submandibular gland 77
- supraglottis 9–10, 41, 53–55, 139
- surgery 19  
 chemoradiotherapy and 22  
 hypopharyngeal cancer 45–46, 62  
 laryngeal cancer 42–43, 53, 57  
 metastatic lymph nodes 36, 121–122, 138  
 oral cavity cancer 37  
 oropharyngeal cancer 39  
 postoperative changes 137–138, 144  
 radiation therapy and 20–22, 37  
*see also* reconstructive surgery
- surveillance *see* follow-up
- teeth  
 false 15  
 fillings 68, 69
- temporal lobe necrosis 107–108,
- thermoplastic masks 27
- thorax, metastasis to 52, 126–127
- three-dimensional conformal radiotherapy 24–25
- thyroid cartilage 54–55, 56, 65, 146

**154 Index**

- TNM classification 9, 15, 22, 117
  - hypopharyngeal cancer 53
  - laryngeal cancer 52
  - nasopharyngeal cancer 98,
  - oral cavity cancer 70
  - oropharyngeal cancer 86
- tobacco use 2–3, 73
- tongue 12, 13
  - base 53, 89–91
  - oral 79–80
- tonsils 86–89
- tracheo-esophageal voice restoration 43, 46
- treatment *see* radiation therapy; surgery
- trigeminal nerve 82
- trismus 11, 14, 99
- tumor volume measurement 102–104
- ultrasound
  - biopsy 120
  - metastasis 118, 120–122,
- vallecula 53, 89
- Valsalva maneuver 51, 60
- verification (of radiation therapy)
  - 31, 32
- verrucous carcinoma 7
- viruses 4–5
- visual disturbances 14
- vocal cords *see* glottis
- voice restoration 43, 46
- whole body imaging 129
- women 2, 94
- X-rays, chest radiographs 126