Index

Note: Page numbers of article titles are in boldface type.

A

Abscess, parapharyngeal space, 202–203
peritonsillar and parapharyngeal, 201–202
Acute sinusitis. See Sinusitis.
Adjuvant chemoradiotherapy, for squamous cell carcinoma of oral cavity and oropharynx, 309–310
Agger nasi cells, anatomic variations in, 177
Allergic rhinitis, 205–217
diagnostic strategies, 208–210
physical examination, 208
skin testing, 208–210
in vitro, 209–210
intradermal, 209–210
epidemiology, 205–206
pathophysiology, 206–208
Samter triad, 207–208
treatment strategies, 210–215
environmental exposure monitoring, 210
indoor allergens, 210
outdoor allergens, 210
immunotherapy, 213–215
injection, 214
mechanisms, 214
sublingual, 214–215
pharmacotherapy, 210–213
antihistamines, 210–212
decongestants, 212
intranasal corticosteroids, 212
leukotriene receptor antagonists, 212–213
mast cell stabilizers, topical anticholinergic, and mucolytics, 213
monoclonal antibody therapy, 213
Alloplastic material, for closure of oroantral communication, 245
Ameloblastic fibroma, of the paranasal sinuses, 258
Ameloblastoma, of the paranasal sinuses, 257–258
Anatomy, for endoscopic surgery, 276–277
nose and lateral nasal wall, 276–277
paranasal sinuses, 277
for imaging the paranasal sinuses, 176–177
anatomic variants, 177
outflow tracts, 176–177
in epistaxis, 219
of nasal obstruction, 229–231
nasal turbinates, 229–230
nasal valve, 230–231
of tonsils and adenoids, 197–198
relevant for examination of ear, nose, throat, and sinus, 167–170
surgical, of major salivary glands, 295–296, 300, 301–302
parotid gland, 295–296
sublingual gland, 301–302
submandibular gland, 300
surgical, of nasal cavity, 155–166
lateral wall, 157–159
lower lateral nasal cartilages, 156
nasal septum, 156–157
upper lateral nasal cartilages, 155–156
surgical, of paranasal sinuses, 155–166
ethmoidal sinus, 159–161
frontal sinus, 164–165
blood supply, 165
maxillary sinus, 161–162
anatomic relationship with teeth, 162–163
blood supply and innervation, 163–164
clinical significance of septa, 163
ostium of, 163
superior alveolar nerves, 163
vital structures, 162–164
Angiofibroma, of the paranasal sinuses, 256–257
Anticholinergics, topical, for allergic rhinitis, 213
Antihistamines, for allergic rhinitis, 210–212
Antrostomy, endoscopic middle meatal, 282
B

Benign cysts, of paranasal sinuses, 249–264
extrinsic, 250–253
dentigerous cysts (follicular, primordial), 250–252
lateral periodontal cyst (radicular), 252
neurogenic, 252–253
fissural, 253–255
globulomaxillary (lateral bony inclusion cyst), 253
median palatal (palatine) cyst, 254–255
nasopalatine duct cyst (incisive canal cyst), 253–254
intrinsic, 249–250
cholesteatoma (keratoma, epidermoidoma), 250
mucocele (mucus extravasation phenomenon), 250
mucous retention cyst (salivary duct cyst), 249
serous cyst, 250
odontogenic, 258
Benign neoplasms, of paranasal sinuses, imaging of, 183–185
  fibrous dysplasia, 184–185
  inverted papilloma, 183–184
  odontogenic lesions, 185
  osteoma, 184
Benign tumors, of paranasal sinuses, 249–264
  epithelial, 255–256
  mesenchymal, 256–257
  odontogenic, 257–258
Bleeding, nasal. See Epistaxis.
Bone grafts, for closure of oroantral communication, 244–245
Buccal fat pad, for closure of oroantral communication, 241–242
Buccal mucosa, squamous cell carcinoma of, 312–313
Buccal sliding flap, for closure of oroantral communication, 240

C
Calcifying epithelial odontogenic tumor, of the paranasal sinuses, 258
Caldwell-Luc procedure, 292
Cancer. See Neoplasms, Tumors, and Squamous cell carcinoma.
Carbon dioxide laser surgery, transoral, for squamous cell carcinoma of oral cavity and oropharynx, 312–313
Cartilages, nasal, surgical anatomy of, 155–156
Cerebral spinal fluid rhinorrhea, endoscopic closure of, 279–280
Chemoradiotherapy, adjuvant, for squamous cell carcinoma of oral cavity and oropharynx, 309–310
Chemotherapy, induction, for squamous cell carcinoma of oral cavity and oropharynx, 309–310
Cholesteatoma, of the paranasal sinuses, 250
Chronic sinusitis. See Sinusitis.
Collagen membranes, resorbable, for closure of oroantral communication, 245
Computed tomography, imaging of paranasal sinuses, 175–189
Concha bullosa, anatomic variations in, 177
Corticosteroids, intranasal, for allergic rhinitis, 212
Crani-plex, cranial nerve assessment of, 174
Cylindrical cell papilloma, of paranasal sinuses, 256
Endoscopic surgery, of nose and paranasal sinus, anatomy of nose and lateral nasal wall, 276–277
  closure of cerebrospinal fluid rhinorrhea, 279–280
  dacryocystorhinostomy, 283
  ethmoidectomy, 280–281
  frontal sinus exploration, 281–282
  medial maxillectomy, 282–283
  middle nasal antrostomy, 282
  nasal examination, 280
  pathophysiology, 277–278
  pituitary surgery, 278
  repair of septal perforation/septoplasty, 278–279
  sinus surgery, 280
  sphenoid surgery, 281
Endoscopy, nasal, 172–173
  with frontal sinus fractures, 270–2713
Environmental exposure monitoring, for allergic rhinitis, 210
Epidermoidoma, of the paranasal sinuses, 250
Epistaxis, 219–228
  anatomy, 219
  and hemostatic devices, 219–228
  epidemiology, 219
  etiology, 220–221
  evaluation, 221
  management, 221–226
  anterior, 222
  nasal packing, 222–223
  posterior bleeding, 224–225
  surgery, 225–226
  thrombogenic foams and gels, 223–224
Epithelial tumors, of the paranasal sinuses, 255–256
  sinonasal papillomas, 255–256
Epstein-Barr virus, infection of Waldeyer ring, 199–200
Ethmoid bulla, anatomic variations in, 177
Ethmoid sinus, endoscopic revision surgery of, 288–289
Ethmoidal sinus, acute sinusitis of, 192–193
  surgical anatomy of, 159–161
  blood supply and innervation, 161
  ethmoid air cell development, 159–160
  ethmoid air cells, 160–161
  ethmoid bone, 160
Ethmoidectomy, endoscopic, 280–281
Examination, of ear, nose, throat, and sinus, 167–174
  instrumentation, 170
  relevant anatomy, 167–170
  techniques, 170–174
  cranial nerves, 174
  ear, 171–172
  general appearance, 171
  nasal endoscopy, 172–173
  neck/lymph node, 173–174
  nose and paranasal sinuses, 172
F
Facial nerve, preservation of, in removal of parotid gland, 295, 297–299
Fiberoptic examination, of nasal obstruction, 233
Fibro-osseous tumors, benign, of the paranasal sinuses, 258
Fibrous dysplasia, sinonasal, imaging of, 184–185
Fissural cysts, of the paranasal sinuses, 253
Fistula. See Oroantral communication.
Follicular cysts, of the paranasal sinuses, 250–252
Fractures, of frontal sinus, 265–274
   anatomy, 265–266
   classification, 266
   diagnosis, 266–267
   endoscopy, 270–271
   mechanisms of injury, 266
   outcome and assessment, 271–272
   surgical management, 267–270
Frey syndrome, following parotidectomy, 299
Frontal sinus, endoscopic exploration of, 281–282
   endoscopic revision surgery of, 289–291
   fractures of, 265–274
      anatomy, 265–266
      classification, 266
      diagnosis, 266–267
      endoscopy, 270–271
      mechanisms of injury, 266
      outcome and assessment, 271–272
      surgical management, 267–270
   sinusitis of, 194
   surgical anatomy of, 164–165
   blood supply, 165
   trephination and frontal intersinus septectomy, 292
Fungal sinusitis, imaging of, 179–180
   invasive disease, 179–180
   noninvasive disease, 180
Fungiform papilloma, of paranasal sinuses, 256

G
Gingiva, squamous cell carcinoma of, 312
Globulomaxillary cysts, of the paranasal sinuses, 253
Gold foil, for closure of oroantral communication, 245–246

H
Haller cell, anatomic variations in, 177
Hemangioma, of the paranasal sinuses, 257
Hemostasis, in management of epistaxis, 221–226
   anterior, 222
   nasal packing, 222–223
   posterior bleeding, 224–225
   surgery, 225–226
   thrombogenic foams and gels, 223–224
   Human papillomavirus (HPV), role in oropharyngeal squamous cell carcinoma pathogenesis, 307–308
Imaging, before revision sinus surgery, 286–287
   of nasal obstruction, 233–234
   of paranasal sinuses, 175–189
      anatomy, 176–177
      anatomic variants, 177
      outflow tracts, 176–177
      benign neoplasms, 183–185
      fibrous dysplasia, 184–185
      inverted papilloma, 183–184
      odontogenic lesions, 185
      osteoma, 184
      complications of sinusitis, 181–183
      extrasinus extension of infection, 183
      mucocele, 181
      polyps, 182
      retention cyst, 181–182
      silent sinus syndrome, 183
      sinonasal polyposis, 182–183
      inflammatory sinus disease, 177–181
      acute sinusitis, 178–179
      chronic sinusitis, 180–181
      fungal sinusitis, 179–180
      malignant neoplasms, 185–187
         lymphoma, 187
         melanoma, 187
         metastases, 187
         minor salivary gland tumors, 186–187
         sinonasal undifferentiated carcinoma, 186
         squamous cell carcinoma, 185–186
      methods, 175–176
      postsurgical imaging, 187–188
Immunology, of tonsils and adenoids, 198
Immunotherapy, for allergic rhinitis, 213–215
   injection immunotherapy, 214
   mechanisms, 214
   sublingual, 214–215
Incisive canal cyst, of the paranasal sinuses, 253–254
Indoor allergens, environmental exposure monitoring for in allergic rhinitis, 210
Induction chemotherapy, for squamous cell carcinoma of oral cavity and oropharynx, 309–310
Infections, peritonsillar, 202
Infections. See also Sinusitis.
   microorganisms of nose and paranasal sinuses, 192–194
      acute maxillary and ethmoid sinusitis, 192–193
      chronic maxillary sinusitis, 193
      frontal and sphenoid sinusitis, 194
      future, 195
      infectious rhinitis, 193–194
      present, 195
Inflammatory sinus disease. See Sinusitis.

Injury, frontal sinus fractures, 265–274

Instrumentation, for endoscopic revision sinus surgery, 287

Inverted papilloma, of paranasal sinuses, 255–256

Keratoma, of the paranasal sinuses, 250

Keratoma, of the paranasal sinuses, 250

Lateral bony inclusions cysts, of the paranasal sinuses, 253

Leukotriene receptor antagonists, for allergic rhinitis, 212–213

Leukotriene receptor antagonists, for allergic rhinitis, 212–213

Maxillary sinus, acute sinusitis of, 192–193
chronic sinusitis of, 193
endoscopic revision surgery of, 287–288
squamous cell carcinoma of, 313

Malignant neoplasms, of paranasal sinuses, imaging of, 185–187

lymphoma, 187
melanoma, 187
metastases, 187
minor salivary gland tumors, 186–187
 sinonasal undifferentiated carcinoma, 186
squamous cell carcinoma, 185–186

Malignant neoplasms, of paranasal sinuses, imaging of, 185–187

Nasal cavity, endoscopic examination of, 280
surgical anatomy of, 155–166

Nasal cavity, endoscopic examination of, 280
surgical anatomy of, 155–166

Nasopharynx, examination of, relevant anatomy for, 170

Nasopalatine duct cyst, of the paranasal sinuses, 253–254

Nasopalatine duct cyst, of the paranasal sinuses, 253–254

Neck, examination of, 170, 173–174
relevant anatomy for, 170

Metastases, to paranasal sinuses, imaging of, 187

Microorganisms, of nose and paranasal sinuses, 191–196

infections, 192–194

acute maxillary and ethmoid sinusitis, 192–193

chronic maxillary sinusitis, 193

frontal and sphenoid sinusitis, 194

future, 195

infectious rhinitis, 193–194

present, 195

normal microflora, 191–192

factors affecting, 191–193

nomenclature, 191

Middle meatal antrostomy, endoscopic, 282

Monoclonal antibody therapy, for allergic rhinitis, 213

Mucocoele, as complication of sinusitis, imaging of, 181
of the paranasal sinuses, 250

Mucolytics, topical, for allergic rhinitis, 213

Mucus extravasation phenomenon, 250
Index

techniques for, 173–174
management of N0 in squamous cell carcinoma of oral cavity and oropharynx, 310–311
Neoplasms. See also Tumors., of paranasal sinuses, imaging of, 183–187
benign, 183–185
  fibrous dysplasia, 184–185
  inverted papilloma, 183–184
  odontogenic lesions, 185
  osteoma, 184
malignant, 185–187
  lymphoma, 187
  melanoma, 187
  metastases, 187
  minor salivary gland tumors, 186–187
  sinonasal undifferentiated carcinoma, 186
  squamous cell carcinoma, 185–186
Neurogenic cysts, of the paranasal sinuses, 252–253
Nose, endoscopic surgery of paranasal sinuses and, 275–283
  examination of, 168, 172–173
  nasal endoscopy, 172–173
  relevant anatomy for, 168
  techniques for, 172
microorganisms of paranasal sinuses and, 191–196
  infections, 192–194
  acute maxillary and ethmoid sinusitis, 192–193
  chronic maxillary sinusitis, 193
  frontal and sphenoid sinusitis, 194
  future, 195
  infectious rhinitis, 193–194
  present, 195
  normal microflora, 191–192
  factors affecting, 191–193
  nomenclature, 191
surgery of paranasal sinuses and, 155–316
O
Obstruction, nasal. See Nasal obstruction.
Odontogenic keratocysts, of the paranasal sinuses, 258
Odontogenic lesions, sinonasal, imaging of, 185
Odontogenic tumors, of the paranasal sinuses, 257–258
Onodi cell, anatomic variations in, 177
Oral cavity, ranula, removal of sublingual gland due to, 302
  squamous cell carcinoma of, 307–316
    adjuvant chemoradiotherapy and induction chemotherapy, 309–310
    human papillomavirus and, 307–308
    management of the N0 neck, 310–311
    of the buccal mucosa, 312–313
    of the gingiva, 312
  panendoscopy, 308
  surgery and radiation, 308–309
  surgical margins, 310
  transoral CO₂ laser surgery, 311–312
  transoral robotic surgery, 311
Oroantral communication, surgical management of, 240–246
  closure of defects, 245–246
    alloplastic material, 245
    alternative approaches for, 246
    gold foil, 245–246
    resorbable collagen membranes, 245
  soft tissue closures, 240–246
    bone grafts, 244–245
    buccal fat pad, 241–242
    buccal sliding flap, 240
    palatal-based rotational flap, 240–241
    tongue flaps, 242–243
Osteoma, of the paranasal sinuses, 256
  sinonasal, imaging of, 184
Osteoplastic flap, in open revision sinus surgery, 292–293
Outdoor allergens, environmental exposure monitoring for in allergic rhinitis, 210
P
Packing, nasal, for epistaxis, 222–223
Palatal-based rotational flap, for closure of oroantral communication, 240–241
Palatine cyst, of the paranasal sinuses, 254–255
Panendoscopy, in evaluation of oropharyngeal squamous cell carcinoma, 308
Papillomas, sinonasal, 255–256
  cylindrical cell, 256
  fungiform, 255
  inverted, 255–256
  imaging of, 183–184
Paranasal sinuses, 155–316
  benign cysts of, 249–264
    extrinsic, 250–253
    fissural, 253–255
    intrinsic, 249–250
    odontogenic, 258
  benign tumors of, 249–264
    epithelial, 255–256
    mesenchymal, 256–257
    odontogenic, 257–258
  endoscopic surgery of the nose and, 275–283
    epistaxis, 219–228
    examination of, 168–169, 172
      relevant anatomy for, 168–169
      techniques for, 172
    imaging of, 175–189
      anatomy, 176–177
      anatomic variants, 177
      outflow tracts, 176–177
Paranasal (continued)

benign neoplasms, 183–185
fibrous dysplasia, 184–185
inverted papilloma, 183–184
odontogenic lesions, 185
osteoma, 184
complications of sinusitis, 181–183
extrasinus extension of infection, 183
mucocele, 181
polyps, 182
retention cyst, 181–182
silent sinus syndrome, 183
sinonasal polyposis, 182–183
inflammatory sinus disease, 177–181
acute sinusitis, 178–179
chronic sinusitis, 180–181
fungal sinusitis, 179–180
malignant neoplasms, 185–187
lymphoma, 187
melanoma, 187
metastases, 187
minor salivary gland tumors, 186–187
sinonasal undifferentiated carcinoma, 186
squamous cell carcinoma, 185–186
methods, 175–176
postsurgical imaging, 187–188
microorganisms of nose and, 191–196
infections, 192–194
acute maxillary and ethmoid sinusitis, 192–193
chronic maxillary sinusitis, 193
frontal and sphenoid sinusitis, 194
future, 195
infectious rhinitis, 193–194
present, 195
normal microflora, 191–192
factors affecting, 191–193
nomenclature, 191
surgical anatomy of, 155–166
ethmoidal sinus, 159–161
frontal sinus, 164–165
maxillary sinus, 161–162
blood supply, 165
anatomic relationship with teeth, 162–163
blood supply and innervation, 163–164
clinical significance of septa, 163
ostium of, 163
superior alveolar nerves, 163
vital structures, 162–164
Parapharyngeal abscess, 201–202
Parapharyngeal space, abscess of, 202–203
Parotid gland, removal of, 295–305
Frey syndrome, 299
management of parotid swelling, 296–297
mucocele, 299–300
surgical anatomy, 295–296
surgical technique, 297–299
Peritonsillar abscess, 201–202
Pharynx, examination of, relevant anatomy for, 169
Pindborg tumor, of the paranasal sinuses, 258
Pituitary surgery, endoscopic, 278
Polyps, as complication of sinusitis, imaging of, 182
Primordial cysts, of the paranasal sinuses, 250–252

R

Radicular cysts, of the paranasal sinuses, 252
Radiology, evaluation prior to revision sinus surgery, 286–287
imaging of paranasal sinuses, 175–189
Ranula, oral, removal of sublingual gland due to, 302
Resorbable collagen membranes, for closure of oroantral communication, 245
Retention cyst, as complication of sinusitis, imaging of, 181–182
Revision sinus surgery, 285–293
endoscopic, 287–292
complications of, 291
ethmoid sinus, 288–289
frontal sinus, 289–291
general concepts, 287
instrumentation, 287
maxillary sinus, 287–288
postoperative care and debridement, 291–292
sphenoid sinus, 289
open, 292–293
Caldwell-Luc, 292
frontal sinus trephination and frontal intersinus septectomy, 292
osteoplastic flap, 292–293
preoperative evaluation, 285–287
Rhinitis, allergic, 205–217
diagnostic strategies, 208–210
physical examination, 208
skin testing, 208–210
epidemiology, 205–206
pathophysiology, 206–208
Samter triad, 207–208
environmental exposure monitoring, 210
immunotherapy, 213–215
pharmacotherapy, 210–213
infectious, 193–194
Rhinorrea, cerebral spinal fluid, endoscopic closure of, 279–280
Rhinosinusitis, revision sinus surgery for chronic, 285–293
Robotic surgery, transoral, for squamous cell carcinoma of oral cavity and oropharynx, 312

S

Salivary glands, major, removal of, 295–305
parotid gland, 295–300
sublingual gland, 301–302
submandibular gland, 300–301
minor, imaging of tumors of, 186–187
Samter triad, 207–208
Septal perforation, endoscopic repair of, 278–279
Septectomy, frontal sinus, 292
Septoplasty, endoscopic, 278–279
for nasal obstruction, 233–234
Serous cyst, of the paranasal sinuses, 250
Sialocele, following parotidectomy, 299–300
Sinonasal papillomas, 255–256
cylindrical cell, 256
fungiform, 255
inverted, 255–256
Sinonasal polyposis, imaging of, 182
Sinusitis, chronic rhinosinusitis, revision sinus surgery for, 285–293
imaging of inflammatory paranasal sinus disease, 177–181
acute, 178–179
chronic, 180–181
complications of, 181–183
fungal, 179–180
microorganisms of nasal and paranasal, 192–194
acute maxillary and ethmoid sinusitis, 192–193
chronic maxillary sinusitis, 193
frontal and sphenoid sinusitis, 194
future, 195
infectious rhinitis, 193–194
present, 195
Skin testing, for allergic rhinitis, 208–210
epicutaneous, 210
in vitro, 210
intradermal, 209
Soft tissue closures, of oroantral communication, 240–246
bone grafts, 244–245
buccal fat pad, 241–242
buccal sliding flap, 240
palatal-based rotational flap, 240–241
tongue flaps, 242–243
Sphenoid sinus, endoscopic revision surgery of, 289
endoscopic surgery, 281
sinusitis of, 194
surgical anatomy of, 155
Squamous cell carcinoma, of oral cavity, oropharynx and maxillary sinus, 307–316
adjuvant chemoradiotherapy and induction chemotherapy, 309–310
human papillomavirus and, 307–308
management of the N0 neck, 310–311
of the buccal mucosa, 312–313
of the gingiva, 312
of the maxillary sinus, 313
panendoscopy, 308
surgery and radiation, 308–309
surgical margins, 310
transoral CO2 laser surgery, 311–312
transoral robotic surgery, 311
sinonasal, imaging of, 185–186
Stents, for frontal sinus fractures, 269–270
Streptococcal infection, tonsillitis-pharyngitis, 200–201
Sublingual gland, removal of, 295–305
oral ranula, 302
surgical anatomy, 301–302
Submandibular gland, removal of, 295–305
surgical anatomy, 300
surgical technique, 300–301
Surgery, for management of epistaxis, 225–226
Surgical anatomy. See Anatomy, surgical.
Surgical management, of frontal sinus fractures, 267–270
of nasal obstruction, 229–237
of external nasal valve, 235
of internal nasal valve, 234–235
septoplasty, 233–234
turbinate surgery, 236
of oroantral communication, 240–246
closure of defects, 245–246
alloplastic material, 245
alternative approaches for, 246
gold foil, 245–246
resorbable collagen membranes, 245
soft tissue closures, 240–246
bone grafts, 244–245
buccal fat pad, 241–242
buccal sliding flap, 240
palatal-based rotational flap, 240–241
tongue flaps, 242–243
of squamous cell carcinoma of oral cavity and oropharynx, 308–313
management of N0 neck, 310–311
surgical margins, 310
transoral CO2 laser surgery, 311–312
transoral robotic surgery, 311
removal of major salivary glands, 295–305
parotid gland, 295–300
sublingual gland, 301–302
submandibular gland, 300–301
revision sinus surgery, 285–293
endoscopic, 287–292
open, 292–293
preoperative evaluation, 285–287

T
Thrombogenic foams and gels, for epistaxis, 223–224
Tongue flaps, for closure of oroantral communication, 242–243
Tonsillitis, 197–204
anatomy, 197–198
immunology of adenoids and tonsils, 198
Tonsillitis (continued)
  infections of Waldeyer ring, 198–203
    Epstein-Barr virus, 199–200
    parapharyngeal space abscess, 202–203
    peritonsillar and parapharyngeal abscess, 201–202
    peritonsillar infections, 202
    streptococcal tonsillitis-pharyngitis, 200–201
  viruses, 198–199
Trephination, frontal sinus, 292
Tumors. See also Neoplasms., benign, of paranasal sinuses, 249–264
  epithelial, 255–256
  mesenchymal, 256–257
  odontogenic, 257–258
Turbinate surgery, for nasal obstruction, 236

U
  Undifferentiated carcinoma, sinonasal, imaging of, 186
  Unified airway, allergic rhinitis and, 205–217

V
  Viruses, infecting Waldeyer ring, 198–199

W
  Waldeyer ring, infections of, 198–203
    Epstein-Barr virus, 199–200
    parapharyngeal space abscess, 202–203
    peritonsillar and parapharyngeal abscess, 201–202
    peritonsillar infections, 202
    streptococcal tonsillitis-pharyngitis, 200–201
    viruses, 198–199