Index

Acrylic appliances, 163–166, 191–195, 216–218 Acupuncture, 224, 254-255, 316-317 Acute malocclusion, 116-119, 125-128, 159-160, 354–356 Acute pain, 86-87, 92-93, 103-148, 168, 276, 277, 279-281, 319 case scenarios, 333-336, 349-350, 353-358 Acute pulpalgia, 15–16, 33, 39, 62–65, 111, 325, 333-335, 370, 371 Acute TMD conditions, 86-87, 92-93, 103-148, 168, 276, 277, 279–281, 319, 357–358 Acute TMJ disc displacement with reduction. See TMJ, disc displacement without reduction with limited opening Adherence of condyle, 83, 88, 143 Adhesions within TMJ, 83, 88, 305, 306 Adjunctive therapies, 247-248, 261-262, 301, 321, 324, 366, 372 Adjustments of appliances, 153–155, 172–190, 204-205 external, 178-184, 217 internal, 172-175 Advil. See Ibuprofen Advocacy group for patients, 415 Afrin, 17, 65, 337 Allergy from appliance, 165, 166, 172 Alloplastic disc implants, 11, 13, 27, 68, 77, 308, 321 American Board of Orofacial Pain Diplomates, 416 Amitriptyline, 23, 36, 63, 114, 282-283, 322-323, 344, 357 Amoxicillin/clavulanate. See Augmentin Analgesic creams, 284–289, 342 Analgesics, 107, 277-280, 284-289, 342 Anaprox. See Naproxen Anatomy, of TMJ, 19–20

Anesthetic test, 40, 64, 66–67, 118, 334, 370 Ankylosis, 21, 74, 83, 88-89, 116, 304, 306, 307, 321, 413 Anterior digastric muscle pain from, 115, 133 palpation, 51-55 referred pain from, 54 Anterior midline shift, 34, 61-62, 68, 77, 387 Anterior open bite, 17, 27, 34, 61, 68, 77, 89-90, 387 Anterior positioning appliances, 84, 137–139, 151, 208, 213-221, 349-350, 419 adjustment, 216-218 allergy from, 165, 166, 172 bisphenol A (BPA) within, 151–152 care for, 397–398 (also on accompanying CD) chairside fabrication, 137-139 description, 137-139, 151 design, 216-218 interocclusal record for, 215-216 management for, 151, 137-139, 218-221, 349-350 mandibular position for, 151, 213-216 mechanisms, 151, 213-215 occlusal changes secondary to, 218-219 temporary appliance, 137-139, 349-350 Antibiotics, for sinus pain, 17, 65, 337 Antidepressants selective serotonin reuptake inhibitor (SSRI), 276-277, 284 tricyclic, 103, 275, 276, 282-284, 319, 323, 324, 326, 338, 357 amitriptyline, 23, 36, 63, 114, 282-283, 322-323, 344, 357 daytime pain treated using, 283, 323, 358 description, 282 desipramine, 283, 323, 358

Manual of Temporomandibular Disorders, Third Edition. Edward F. Wright.

© 2014 John Wiley & Sons, Inc. Published 2014 by John Wiley & Sons, Inc.

۲

()

Antidepressants (continued) nocturnal habits treated using, 282-283, 322-323 nortriptyline, 23, 36, 63, 114, 283, 322-323 Anti-inflammatory medications corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 nonsteroidal anti-inflammatory medications (NSAIDs) ingested, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 topical, 286-288, 342 Anxiety, 100, 103, 249, 261, 269, 275, 281, 313, 325, 332, 352, 411 Appliances. See also Anterior positioning appliances; Sleep apnea, appliances; Stabilization appliances; Thermoplastic stabilization appliances opposing, 203-204, 208, 315, 322, 341 repair, 188-190 retention, 170-171 thickness, 158, 167, 169-170, 178, 183-184, 188, 192–193, 195–196, 200–202, 405-406 wear, 154, 205, 315 Arm pain analogy, 26, 240-241 Arteritis, 26-27, 38 Arthralgia. See TMJ, arthralgia Arthritis osteoarthritis, 17, 27, 34, 61, 77, 83, 90, 149, 285, 287, 289-290 rheumatoid, 71, 82, 86, 90, 99 systemic arthritides, 7, 35, 71, 82, 83, 89, 90 Arthrocentesis, 142-143, 280, 304-306, 320, 351-352 Arthrography, 75 Arthroscopy, 304, 306-307 Articular diagnostic categories, 82-92 Articular eminence interference luxation, 20-22, 89, 106, 145-148, 315, 442 Monoject syringe for, 147 stabilization appliance for, 149, 315 subluxation, 20-22, 89, 106, 145-148, 315, 442 stabilization appliance for, 149, 315 Articular surface remodeling, 71, 82, 89 Aspercreme cream, 284-285, 396 Assessing clinical trials, 380 Athletic mouthpiece, 154, 163, 168, 201-204

Augmentin, 17, 65, 337 Autonomic changes, 17-18 Awakening symptoms, 7, 13, 23, 62, 98-99, 134, 141, 205, 207, 281–283, 296, 322–324, 339-340 medications for, 23, 63, 113-115, 280-281, 282-283, 322-323, 332, 352 occlusal appliance for, 154, 205, 315 Baclofen, 381-382 Biofeedback, 247, 261, 263-265, 269-271, 317-319, 321-323, 342, 357-358, 411, 419 Bisphenol A (BPA), within appliances, 151–152 Bite registration (interocclusal record) anterior positioning appliance, 215-216 stabilization appliance, 153-154, 155-158, 360-362 Blinded (masked) subjects, 375-377, 380 Bloodshot eyes, 17 Bone remodeling, 71, 82, 89 Books, for patients and practitioners, 415-417 BOTOX®, 250, 316 Botulinum toxin-A, 250, 316 BPA (Bisphenol A), within appliances, 151-152 Breaking daytime habits, 23-24, 99, 135, 240-244, 261-266, 317, 321-322, 342 external cues, 241-242, 267, 420 internal cues, 242, 267, 327, 420 Brochures for patients, 415 Bruxism. See Parafunctional habits Burning pain, 15-16, 27, 33

Caffeine consumption, 233-236, 314, 326, 396 Candidiasis, under appliance, 205 Capsaicin, 285-286 Capsulitis. See TMJ, arthralgia Cardinal TMD signs and symptoms, 1 Care for appliances, 397-398 (also on accompanying CD) Caries and restorations altering therapy, 62-65, 110-114, 116-120, 154, 177-178, 200, 295, 296, 320, 333-335 imaging for, 76 Carisoprodol, 280 Carotid artery palpation, 46, 48 significance, 48 Carotidynia, 48

()

Case-control study, 370, 373 Case report, 369, 370-371, 378 Case series study, 369, 371-372 CBCT (cone beam computed tomography), 71, 72, 74, 76 Celebrex. See Celecoxib Celecoxib, 290 Centrally mediated myalgia, 83, 95 Centric relation (CR), 153-154, 155-159, 296, 303, 320, 419 Cervical muscles palpation, 45-46, 48-57, 337-339 referred pain from, 48-57, 337-339 Cervical pain, 419 awakens patients, 23, 33 case scenario, 337-339 headache contribution from, 18, 251-252, 255 palpation for, 48-57, 338 prevalence, 18, 106, 248, 250 referred pain from, 48-57 scope of care within, 19, 39, 60 significance, 18-19, 49, 60, 315 treatment, 57, 60, 248–254, 255–256, 284, 286, 315, 316, 321, 324, 338-339 Cervicogenic headache, 18, 48-50, 251-252, 317 Chief complaint, 5, 44, 64, 81 Chiropractics, 255-256, 317 Chlorzoxazone, 280 Chondroitin, 289–290 Clearance, for orthodontic therapy, 301 Clenching teeth, 1, 6, 19, 26, 37, 71, 82, 97, 100, 234–235, 267, 295, 337 test for, 68 Clinical examination, 39-68. See also Initial evaluation additional evaluations, 67-68 intraoral examination, 61-67 palpation, 39-40, 44-61, 65-67, 110-111 structures anterior digastric muscle, 51-55 carotid artery, 45-48 cervical muscles, 45-46, 48-57 coronoid process, 53, 59 initial palpations, 44-51 lateral pterygoid area, 52-54, 57-58, 111 masseter muscle, 45-48, 54, 111 medial pterygoid muscle, 52-54, 58-59 more intense TMD palpations, 50–51, 57, 59,66

posterior digastric muscle, 53–56 splenius capitis muscle, 45-46, 48-50, 54 sternocleidomastoid muscle, 53-54, 56 stylomandibular ligament, 59-60 temporalis muscle, 45-49, 51-55, 59, 111 temporalis tendon, 52-54, 59 thyroid, 45-48 TMJ, 45-47, 50-54, 111 trapezius muscle, 45-46, 48-50, 54 tables/figures additional palpations, 53 for dental patients, 111 initial recommended palpation, 46 recommended initial palpation, 46 sites referred pain felt maps, 54 sources of referred pain generation maps, 52 range of motion, 40-43, 332 TMJ noise click, 20, 22, 43, 84-86, 131-132, 156, 207, 215, 220, 345-349, 422 crepitus, 20, 43, 89, 156, 346, 419 Clinical trials, 365-381 assessing, 380 control groups, 374–376 designs, 369-378 generalizable, 366, 380 hypothesis, 367, 380 outcome measures, 375, 380 quality, 367, 377 registration, 367 Closed lock (disc displacement without reduction with limited opening of TMJ), 20, 36, 86-88, 346, 349-352 case scenarios, 346, 349-352 characteristics, 86-88, 131-134, 136-43 clinical features, 20, 36, 86-88, 131-134, 136-43 illustration, 20, 86-88, 393 (also on accompanying CD) intermittent occurrence. See Disc displacement with reduction with intermittent locking manipulation, 136-138, 349-350 stretching retrodiscal tissue of, 139-142, 350-352 techniques for patient to unlock, 135-138 temporary appliance for, 139 treatment, 131-134, 136-43, 349-352

Closing mouth disorders, 21–22, 36, 116–119, 125, 145. See also Lateral pterygoid muscle, spasm; TMJ, luxation; TMJ, subluxation Closure muscle-stretching exercise, 114–116, 236-238, 315, 339, 342-347, 399-400 Cochrane Library, 366, 379 Coenzyme Q10. See CoQ10 Cognitive behavioral intervention, 1, 223, 244, 261-271, 276, 411-412 Cohort study, 373-374 Cold, and thermotherapy, 107, 224, 231-232, 333-335 Cold beverage aggravating TMD symptoms, 15-16, 33, 40, 63 Cold testing of teeth, 63, 333-335 Compliance with therapy, 27, 225–226, 230, 232, 236, 239, 268, 325 Computed tomography (CT), 71, 72, 74, 76 Condylar fracture, 72, 76, 83, 87, 91, 106, 133, 370-371 Condylar hyperplasia, 83, 92 Condylar hypoplasia, 83, 91, 106 Condylar remodeling, 71, 82, 89 Condyle, distraction of, 127, 135-138, 147, 238 Condyle-disc complex, 19, 22, 83-88, 131-148, 345–352, 393 (also on accompanying CD) reduced position, 20, 22, 85, 137-138, 207, 213, 421 Condylysis. See TMJ, condylysis of Cone beam computed tomography (CBCT), 71, 72, 74, 76 Consolidated Standards of Reporting of Trials (CONSORT), 370, 377 Contracture, 21, 83, 93-94, 115-116, 125, 218 Contributing factors, 3, 5–8, 13, 22, 65, 75, 82, 97-101, 103, 107, 142, 224, 247, 261, 314, 321, 325, 332, 343-345, 419 cervical pain, 18-19, 49, 60, 315. See also Cervical pain initiating, 98, 420 muscle tension, 1, 99, 135, 229-231, 235, 237, 240, 242-244, 261, 267 case scenarios with, 341-342, 348, 352, 358 perpetuating, 6, 98-100, 103, 106-107, 142, 224-225, 230, 247, 343-345, 420 poor sleep, 19, 22-23, 33, 36, 233, 269, 282-283, 318, 322-324, 343-344 predisposing, 97, 106, 300, 420

psychosocial contributors, 1, 24–25, 100, 103, 107, 261-262, 321, 324-326, 343-344 depression, 1, 24-25, 100, 103, 107, 261-262, 321, 324-326, 343-344 frustrations, 24, 101, 271, 323, 421 management, 313, 321, 343-344 stress, 1, 6, 24, 98, 101, 103, 241, 261 widespread pain, 19, 35, 94, 225, 321, 325, 344-345, 420 Control groups, 374-376 CoQ10, 290 Coronoid hyperplasia, 21, 83, 95 Coronoid process, 53, 59, 95 palpation. See Temporalis tendon referred pain from. See Temporalis tendon Corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 COX₂ inhibitors, 278, 279 Crepitus, 20, 43, 89, 156, 346, 419 Cross-sectional study, 370, 371, 372-373 CT (computed tomography), 71, 72, 74, 76 Cyclobenzaprine (Flexeril), 63, 114, 280, 281, 323, 332, 352 case scenarios with, 332, 352 Cyclooxygenase-2 inhibitors. See COX₂ inhibitors Daytime habit-breaking appliance, 160, 164, 171, 183, 195-199, 205-206, 242-244, 342 Daytime parafunctional habits, 240–244, 266– 267, 317, 341-342, 357-358 symptoms from, 13, 99-101, 134-135, 261-264, 317, 341-342 therapies for, 323-324 biofeedback, 247, 261, 263-265, 269-271, 317-319, 321-323, 342, 357-358, 411, 419 breaking daytime habits, 23-24, 99, 135, 240-244, 261-266, 317, 321-322, 342 cognitive behavioral intervention, 1, 223, 244, 261-271, 276, 411-412 habit breaking appliance, 160, 164, 171, 183, 195–199, 205–206, 242–244, 342 hypnotherapy, 269, 318 occlusal appliance for, 160, 164, 171, 183, 195-199, 205-206, 242-244, 342 relaxation, 235, 261, 263-271, 318 stress management, 263-265, 271, 317, 319, 323, 411-412 tricyclic antidepressants for, 283, 323, 358

Degenerative joint disease, 20, 43, 83, 89–90, 419 Dental care alternatives to appliance therapy for, 62-63, 113-114 preventing TMD during, 111-114, 118 appliance's internal surface changes for, 177-178, 200 TMD secondary to, 109-120, 353-354, 359-360 etiology, 109-120 inability to close into MI, 116-119. See also Lateral pterygoid muscle, spasm; TMJ, luxation medial pterygoid muscle pain, 110, 114-116, 342-343 obstructive sleep apnea appliances, 120-122 occlusal interference sequelae, 97, 111, 119-120, 295, 296 predisposed patients, 98, 109, 110, 112 pretreatment palpations, 98, 110-111 prevention, 111-114, 118 Dental caries altering therapy, 62–65, 110–114, 116–120, 296, 320, 333-335 imaging for, 76 Dental etiology contribution to TMD, 14–16, 62-65, 105-106, 325, 333-335 Dental implant supported crowns, 152, 182-183, 217 - 218Dental Practice-Based Research Network, 369 Dental record entry example, 407-408 Dental treatment, preventing aggravation from, 111–114, 118 Depression, 1, 24-25, 100, 103, 107, 261-262, 321, 324-326, 343-344 Description of pain, 14–17, 322–361 Designs for clinical studies, 369-378 Desipramine, 283, 323, 358 Developmental disorders, 91-92 DexPak 6-Day Taperpak, 108, 141, 279-280, 350, 352, 355, 358 Diagnoses, 81-95 primary, 5-7, 81-82, 421 secondary, 6-7, 81-82, 421 table, 83 tertiary, 6-7, 81-82, 422 Diagnostic categories, for TMD, 81-95 associated structures, 95 headache disorders, 95

masticatory muscle disorders, 92–95 table, 83 TMJ disorders, 82–92 Diagnostic tests anesthetic, 40, 64, 66-67, 118, 334, 370 clenching teeth, 68 cold, 63, 333-335 stretching, 21, 41, 93–94, 117, 127–128, 351, 355 Diazepam, 108, 113, 115, 117-118, 128, 141, 275, 280-281, 322 case scenarios with, 332, 343, 350, 353, 356, 358 Diclofenac, topical. See Nonsteroidal antiinflammatory medications, topical Diet restrictions, 93, 107, 233-234, 396 Digastric muscles anterior pain from, 115, 133 palpation, 51-55 referred pain from, 54 posterior pain from, 115, 133, 357–358 palpation, 51-56 referred pain from, 54 Disc-condyle complex, 19, 22, 83–88, 131–148, 345-352, 393 (also on accompanying CD) reduced position, 20, 22, 85, 137-138, 207, 213, 421 Disc-condyle complex disorders patient handout, 393 (also on accompanying CD) Disc derangement disorders. See various entries for Disc displacement Disc displacement with reduction of TMJ, 19-20, 36, 43-44, 85-86, 213-214 case scenario, 345-346, 357-358 characteristics, 43-44, 85-86 clinical features, 19-20, 36, 43-44, 85-86 illustration, 19-20, 84-85, 393 (also on accompanying CD) treatment, 43-44, 149, 345-346 Disc displacement with reduction with intermittent locking of TMJ, 20-21, 36, 43-44, 85-87, 131-136, 156, 214, 220, 280, 301, 346, 347-349, 351-352 case scenarios, 346, 347-349, 351 characteristics, 43-44, 85-86, 131-136 clinical features, 20, 36, 43-44, 85-86, 131-136

Disc displacement with reduction with intermittent locking of TMJ (continued) illustration, 20, 85-86, 393 (also on accompanying CD) techniques for patient to unlock, 135 treatment for, 131-136, 346, 347-349 Disc displacement without reduction with limited opening of TMJ (closed lock), 20, 36, 86-88, 346, 349-352 case scenarios, 346, 349-352 characteristics, 86-88, 131-134, 136-43 clinical features, 20, 36, 86-88, 131-134, 136-43 illustration, 20, 86-88, 393 (also on accompanying CD) intermittent occurrence. See Disc displacement with reduction with intermittent locking manipulation, 136-138, 349-350 stretching retrodiscal tissue, 139-142, 350-352 techniques for patient to unlock, 135-138 temporary appliance for, 139 treatment, 131-134, 136-43, 349-352 Disc displacement without reduction without limited opening of TMJ, 87-88 clinical features, 87-88 illustration, 20, 87-88, 393 (also on accompanying CD) Dislocation. See Luxation; Subluxation Distraction of condyle, 127, 135-138, 147, 238 Doppler, use of, 43 Drop out subjects, 376 Dry socket (osteitis), 111, 353-354 Dual laminate thermoplastic appliances, 166–167, 170, 188, 200-201 Duration of pain, 17 Dyskinesia, 83, 94 Dystonia, 83, 94 Eagle's syndrome, 36 Ear pain, 1, 52, 56, 60, 92, 372 Ear symptoms, 1, 372 Eclipse appliances, 165–166 Elavil. See Amitriptyline Electrical stimulation, 251 Emotional stress, 1, 6, 24, 98, 101, 103, 241, 261 Equilibration of teeth, 65, 297-300, 319-320, 375

Ernest syndrome, 59 Evaluation, initial. See Initial evaluation

Examples dental record entry, 407-408 insurance company coding, 413-414 (also on accompanying CD) laboratory appliance instructions, 405-406 (also on accompanying CD) physical therapy consult, 409-410 psychology consult, 411-412 stabilization appliance dual laminate thermoplastic, 200-201 hard thermoplastic, 195-199 Impak, 199-200 maxillary acrylic, 193-195 pressure cured mandibular acrylic, 191-193 soft thermoplastic, 201-204 Exercises closure muscle-stretch, 236-238, 315, 399-400 (also on accompanying CD) lateral pterygoid spasm-stretch, 127-128, 355-356 medial pterygoid spasm-stretch, 114-116, 342-343 posture, 239-240, 315, 401-403 (also on accompanying CD) retrodiscal tissue stretch, 139-142, 350-352 tongue depressors to forcibly stretch, 116 External adjustments anterior positioning appliance, 217 stabilization appliance, 178–184 External cues, 241-242, 267, 420 External reline of appliance, 184–188 Extraction of tooth, 64, 67, 76, 110, 116, 298, 300, 353-354 Eye bloodshot, 17 pain in or around (periorbital), 12, 48-52, 338 Facebow, 158 Face red, 17 swollen or puffy, 17, 35, 61, 76, 77, 91, 306-307 Fibromyalgia, 19, 23, 83, 94, 99, 344-345 Fight-or-flight mechanism, 268 Finger holding analogy, 26 Flector Patch, 286-288

Flexeril, 63, 114, 280, 281, 323, 332, 352 Follow-up, 25, 40, 104, 116, 129, 158, 408

Fracture of condyle, 72, 76, 83, 87, 91, 106, 133, 370–371
Frustrations, 24, 101, 271, 323, 421
Full-coverage appliances, 154, 159–160, 171
Fungal infection under appliance, 205

General dentist's efficacy, 3, 225 Giant cell arteritis, 26–27, 38 Glucosamine, 275, 278, 289–290 Growth disorders, 91–92

Habits

daytime habit-breaking appliance, 160, 164, 171, 183, 195–199, 205–206, 242–244, 342 muscle tension, 1, 99, 135, 229–231, 235, 237, 240, 242-244, 261, 267 case scenarios with, 341-342, 348, 352, 358 parafunctional clenching teeth, 1, 6, 19, 26, 37, 71, 82, 97, 100, 234–235, 267, 295, 337 daytime, 13, 23-24, 25-26, 99-101, 135, 155, 261-262, 317, 341-342 symptoms from, 13, 99-101, 134-135, 261-264, 317, 341-342 therapies for, 323-324 biofeedback, 247, 261, 263-265, 269-271, 317-319, 321-323, 342, 357-358, 411, 419 breaking daytime habits, 23-24, 99, 135, 240-244, 261-266, 317, 321-322, 342 cognitive behavioral intervention, 1, 223, 244, 261-271, 276, 411-412 hypnotherapy, 269, 318 occlusal appliance for, 160, 164, 171, 183, 195–199, 205–206, 242–244, 342 relaxation, 235, 261, 263-271, 318 stress management, 263-265, 271, 317, 319, 323, 411-412 tricyclic antidepressants for, 283, 323, 358 emotional stress relation, 24, 98, 101, 103, 241, 261 masticatory muscle tension, 1, 99, 135, 229-231, 235, 237, 240, 242-244, 261, 267

case scenarios with, 341-342, 348, 352, 358 nocturnal, 13, 24, 99, 339-340 symptoms from, 13, 24, 99, 322 therapies for, 322-323, 339-340, 346-347 medications for, 63, 281-283, 319, 322-323, 332 occlusal appliance for, 154, 205, 315 reversal, 229, 235, 240-244, 262-269, 317 external cues, 241-242, 267, 420 internal cues, 242, 267, 327, 420 tooth pain caused by, 65-67 Headache cervicogenic, 18, 48-50, 251-252, 317 chronic, table of, 18 migraine, 1, 14, 18-19, 33, 290, 321, 338 sinus, 16-17, 33, 34, 40, 65, 67, 321, 336-337 tension-type (muscle tension), 1, 18-19, 290 treatment recommendation table, 18 Head posture exercises for, 239-240, 315, 401-403 (also on accompanying CD) importance, 239-240, 315, 377 Heat thermotherapy, 114-115, 141, 224, 231-232, 236, 237 History-taking initial evaluation, 5-7, 11-27, 31-38 secondary to trauma, 34, 76, 87, 88, 91, 93, 95, 105-108, 133 imaging, 76, 106 treatment, 107-108, 277 Hyaluronic acid. See Sodium hyaluronate Hybrid appliance material, 166–167, 188, 199–200 Hygienists' referral criteria, 387 (also on accompanying CD) Hyperplasia condyle of, 83, 92 coronoid of, 21, 83, 95 Hypertrophy, of muscle, 83, 94 Hypnosis (hypnotherapy), 269, 318 Hypnotherapy, 269, 318 Hypoplasia, of condyle, 83, 91, 106 Hypothesis for clinical trials, 367, 380 Ibuprofen, 95, 108, 113, 115, 118, 128, 178-279, 286, 289, 290, 332, 339-340, 342-343, 353, 396 Icy Hot, 231, 248, 284

Imaging arthrography, 75 axially corrected sagittal tomography, 71, 73-74,76 computed tomography (CT), 71, 72, 74, 76 cone beam computed tomography (CBCT), 71, 72, 74, 76 magnetic resonance imaging (MRI), 20, 72, 74, 76, 78, 85, 304, 350, 372 osseous changes of TMJ, 71-72, 74, 75-77, 82, 88-92 panoramic radiograph, 71, 72-73, 76-78, 91, 106-107, 128, 143, 207, 325, 414 plain radiographs, 71, 72 recommendations table, 76 Impak appliances, 151, 153, 165–167, 172, 188, 199-200, 204 Implants adjustments to stabilization appliance for crowns supported by external, 182-183, 217-218 internal, 152 TMJ prosthesis, 11, 27, 68, 74, 77, 307–308, 321 TMJ Teflon-Proplast or Silastic, 11, 13, 27, 68, 77, 308, 321 Impressions with restricted opening, 142 Inability to close into maximum intercuspation, 116–119. See also Lateral pterygoid muscle, spasm; TMJ, luxation Indirect trauma, 105, 420 Infection candidiasis, 205 ear, 356 muscle effect on, 92-93, 94, 116 sinus. See Sinus congestion or pain TMJ, 47, 83, 304 Inflammation, of periodontal ligament, 65 Information, for patients, 393-403 (also on accompanying CD), 415 Initial evaluation clinical examination, 39-68 additional evaluations, 67-68 intraoral examination, 61-67 palpation, 39-40, 44-61, 65-67, 110-111 additional TMD palpations table, 53 dental patient palpations for, 111–114, 118 initial TMD palpations table, 46

more intense TMD palpations, 50–51, 57, 59,66 range of motion, 27-30, 261-286 TMJ noise click, 20, 22, 43, 84-86, 131-132, 156, 207, 215, 220, 345-349, 422 crepitus, 20, 43, 89, 156, 346, 419 contributing factors, 3, 5–8, 13, 22, 65, 75, 82, 97-101, 103, 107, 142, 224, 247, 261, 314, 321, 325, 332, 343-345, 419 cervical pain, 18-19, 49, 60, 315. See also Cervical pain initiating, 98, 420 muscle tension, 1, 99, 135, 229-231, 235, 237, 240, 242-244, 261, 267 case scenarios with, 341-342, 348, 352, 358 perpetuating, 6, 98-100, 103, 106-107, 142, 224-225, 230, 247, 343-345, 420 poor sleep, 19, 22-23, 33, 36, 233, 269, 282-283, 318, 322-324, 343-344 predisposing, 97, 106, 300, 420 psychosocial contributors, 1, 24-25, 100, 103, 107, 261-262, 321, 324-326, 343-344 depression, 1, 24–25, 100, 103, 107, 261-262, 321, 324-326, 343-344 frustrations, 24, 101, 271, 323, 421 management, 313, 321, 343-344 stress, 1, 6, 24, 98, 101, 103, 241, 261 widespread pain, 19, 35, 94, 225, 321, 325, 344-345, 420 diagnostic tests anesthetic, 40, 64, 66-67, 118, 334, 370 clenching teeth, 68 cold, 63, 333–335 stretching, 21, 41, 93-94, 117, 127-128, 351, 355 imaging, 71-78 secondary to trauma, 76, 91, 106 patient interview, 5-8, 11-27, 31-38, 262 review of the Initial Patient Questionnaire, 31-38 TMD diagnostic categories, 81-95 associated structures, 95 headache disorders, 95 masticatory muscle disorders, 92-95 table, 83 TMJ disorders, 82-92

Initial patient questionnaire, 31–38, 389–392 (also on accompanying CD) Initial TMD palpations, 44-51 recommended palpation table, 46 Initiating contributing factor, 98, 420 Injections periodontal ligamentary injection, 64, 66-67, 118, 334, 370 trigger-point, 40, 249-250, 316 Insomnia, 19, 22-23, 33, 36, 233, 269, 282-283, 318, 322-324, 343-344 Institutional Review Board (IRB), 366-367, 371, 381 Insurance company coding, 413-414 (also on accompanying CD) Intaglio surface appliance adjustments, 172-175 Intaglio surface reline of appliances, 175-178 Integrating conservative TMD therapies, 321-324 Integrating multidisciplinary therapies, 313–327 Intensity of pain, 17 Interferences, occlusal, 64-65, 97, 119-120, 295-303, 320, 334, 374, 375 Intermediate softness appliance materials, 164– 167, 200-201 Intermittent closed lock, 20-21, 36, 43-44, 85-87, 131-136, 142, 156, 214, 220, 280, 301, 346, 347-349, 351-352 characteristics, 43-44, 85-86, 131-136 clinical features, 20, 36, 43-44, 85-86, 131-136 illustration, 20, 85-86, 393 (also on accompanying CD) techniques for patient to unlock, 135 treatment for, 131-136, 346, 347-349 Internal appliance adjustments, 172-175 Internal cues, 242, 267, 327, 420 Internal reline of appliances, 175–178 Interocclusal record anterior positioning appliance, 215-216 stabilization appliance, 153-154, 155-158, 360-362 Interview, initial patient, 5-8, 11-27, 31-38, 262 Intraoral examination, 61-67 Iontophoresis, 251, 280, 324, 358 IRB, 366–367, 371, 381 Irreversible pulpalgia, 15–16, 33, 39, 62–65, 111, 325, 333-335, 370, 371 Ivocap appliances, 151, 165-166, 171

anterior positioning appliance, 151, 213–216 stabilization appliance, 153-154, 155-158, 360-362 centric relation, 153-154, 155-157, 303, 419 neutral position, 157, 214, 307, 420 Laboratory appliance instructions, 405-406 (also on accompanying CD) Lateral pterygoid muscle palpation of area, 52-54, 57-58, 111 referred pain from, 54 spasm, 22, 36, 57-58, 83, 87, 93, 116-117, 125-129, 132, 169, 296, 354-356, 414, 420 clinical features, 22, 36, 87, 116-117, 125-128, 132, 169, 296, 354-356 illustration, 19-20, 126-127 stretching, 93, 116-119, 127-128, 355-356 Lidocaine transdermal patch 5%, 288-289 Lidoderm. See Lidocaine transdermal patch 5% Ligamentary injection, 64, 66–67, 118, 334, 370 Lioresal. See Baclofen Literature review, 365-366, 378-379 Loading TMJ anterior positioning appliances, 151, 155, 213-214 arthralgia, 140, 277, 304–305, 313, 358 centric relation, 157, 158 closed lock, 133-134 disc adherence, 83, 88, 143 disc adhesions, 88 disc displacement with reduction with intermittent locking, 133–134, 352 without reduction with limited opening, 133-134 muscle activity causing, 71-72, 82, 134, 234, 313, 358 nociceptive trigeminal inhibition appliance (NTI), 153, 160 occlusal appliance, effect on, 82, 134, 147, 151, 155, 157, 160, 213, 214 osteoarthritis effect, 72 pain causing, 14 parafunctional habits causing, 71, 82, 133, 134, 155, 234, 313, 352, 358 pseudodisc formation, 81, 84

Jaw relationships

Loading TMJ (continued) stabilization appliance, effect on, 82, 134, 147, 155, 158, 307 TMD symptom effect, 71-72, 91, 133-134, 140, 230, 234, 277, 307, 313, 352, 358 Long-term management, 320, 324, 326-327 Luxation, 20-22, 89, 106, 145-148, 315, 442 Monoject syringe for, 147 stabilization appliance for, 149, 315 Macrotrauma, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306 imaging, 76, 91, 106 treatment, 107-108, 232, 277 Magnesium, 290 Magnetic resonance imaging (MRI), 20, 72, 74, 76, 78, 85, 304, 350, 372 Magnetic therapy, 256-257, 317 Malocclusion, 34, 61-62, 77, 90, 91, 97, 116-118, 119–120, 125–127, 153, 154, 159–160, 168, 204, 205, 218-219, 355, 387 causing TMD, 97, 119-120 secondary to anterior positioning appliance, 218-219 secondary to athletic mouthpiece, 154, 168 secondary to condylysis, 62, 77, 90 secondary to lateral pterygoid muscle, 62, 77, 116-118, 125-127, 355 secondary to neoplastic growth, 77 secondary to NTI, 153, 160 secondary to obstructive sleep apnea appliance, 121, 218, 219 secondary to over-the-counter appliances, 204 secondary to sleep apnea appliance, 121, 218, 219 secondary to stabilization appliance, 154, 159-160, 205 secondary to systemic arthritides, 90 secondary to TMJ arthralgia, 62, 77, 116-118 secondary to TMJ osteoarthritis, 61, 77 Management, long-term, 319, 320, 326-327 Mandibular appliances, 160–161, 171, 191–193, 195-199 recommendation table, 164 Masked (blinded) subjects, 375-377, 380 Massage therapy, 2, 118, 135, 136, 229, 230-231, 248-249, 314, 395 (also on accompanying CD)

Masseter muscle palpation, 45-48, 54, 111 referred pain from, 54 stretching, 115, 236-238, 315, 399-400 (also on accompanying CD) case scenarios with, 342, 344, 345, 347, 360, 361 Masticatory muscle disorders, 92–95 Masticatory muscle tension, 1, 99, 135, 229–231, 235, 237, 240, 242-244, 261, 267 case scenarios with, 341-342, 348, 352, 358 Masticatory structure palpations, 39-40, 44-61, 65-67, 110-111 additional palpations table, 53 dental patients palpations for table, 111 initial palpation table, 46 Maxillary acrylic stabilization appliances, 193–195 Maxillary appliances, 160–164, 171, 193–195 recommendation table, 164 Maximum intercuspation (MI), 420 inability to close into, 116-119. See also Lateral pterygoid muscle, spasm; TMJ, luxation Medial pterygoid muscle myositis of, 92-93, 111, 116 pain secondary to dental care, 114-116 palpation, 52-54, 58-59 referred pain from, 54 spasm, 114-116, 342-343 stretching, 114–116, 342–343 Medications. See also names of specific medications analgesic creams, 284-289, 342 analgesics, 107, 277-280, 284-289, 342 corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 COX₂ inhibitors, 278, 279 muscle relaxants central acting, 63, 108, 113-118, 120, 128, 141, 275, 280-281, 322-323, 332, 343, 350, 352, 353, 356, 358 peripheral acting, 281-282 nocturnal parafunctional habits for, 63, 281-283, 319, 322-323, 332 nonsteroidal anti-inflammatory medications (NSAIDs) ingested, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 topical, 108, 141, 279-280, 350, 352, 355, 358

nutritional supplements, 275, 278, 289-290 over-the-counter medications, 118, 231, 236, 276, 278-279, 284-286, 290, 396 (also on accompanying CD) prescribing regimens, 107-108, 279, 281, 332 selective serotonin reuptake inhibitor (SSRI), 276-277, 284 steroidal anti-inflammatory medications, 108, 141, 279–280, 350, 352, 355, 358 topical, 284-289, 342 tricyclic antidepressants, 103, 275, 276, 282-284, 319, 323, 324, 326, 338, 357 MENS (microcurrent electrical nerve stimulation), 251 Meta-analyses, 379-380 Methocarbamol (Robaxin), 280 Microcurrent electrical nerve stimulation (MENS), 251 Microtrauma, 105, 140, 420 Midline shift, 34, 61-62, 68, 77, 387 Migraine headache, 1, 14, 18–19, 33, 290, 321, 338 Monoject syringe, for TMJ luxation, 147 Motivating patients, 24, 100, 236, 239, 267-268 318 Motrin. See Ibuprofen Mouth closing disorders, 21–22, 36, 116–119, 125, 145. See also Lateral pterygoid muscle, spasm; TMJ disc displacement with reduction; TMJ, luxation; TMJ, subluxation Mouth opening measurement, 39-43, 331-361 restriction, 19-21, 86-87, 88-89, 93-94, 114-116, 125-129, 131-143, 149, 315 case scenarios, 333-335, 341-344, 346-358, 360-361 MRI. See Magnetic resonance imaging Multifactorial disorder, of TMD, 2-3, 223-225, 295-298, 313-314 Muscle. See also names of specific muscles tension in, 1, 20, 23, 24, 94, 99-100, 134, 140, 223, 230, 231, 235-237, 240-244, 252, 261-262, 265-267, 271, 297, 319, 322, 375, 396 (also on accompanying CD) case scenarios, 342, 348, 352, 358 tension-type headache, 1, 18–19, 290 Musical instrument playing, 25, 37

Myalgia centrally mediated, 83, 95 local, 92, 95 Myofascial pain, with referral, 45, 46, 48, 83, 92. 248, 409–410, 414 case scenarios, 332, 336, 338, 344, 348 Myofibrotic contracture. See Contracture Myositis, 92–93, 111, 116 Myospasm. See Spasm Naprosyn. See Naproxen Naproxen, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 Nasopharyngeal carcinoma, 61 National Dental Practice-Based Research Network, 369 Neck pain. See Cervical pain Neoplasm, 74, 77, 83, 90-91, 94, 143, 304, 307, 320 Neurogenic inflammation, 95 Neuropathic pain, 15-16, 33, 282, 285 Neutral position, 157, 214, 307, 420 Nocturnal bruxism. See Nocturnal parafunctional habits Nocturnal parafunctional habits, 13, 24, 99, 339-340 symptoms from, 13, 24, 99, 322 therapies for, 322-323, 339-340, 346-347 medications for, 63, 281-283, 319, 322-323, 332 occlusal appliance for, 154, 205, 315 Nonotologic otalgia, 1, 52, 56, 60, 92, 372 Nonrandomized clinical trial, 374–376 Nonsteroidal anti-inflammatory medications (NSAIDs) ingested, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 topical, 286-288, 342 Non-TMD disorders, 5-8, 14-19, 26-27, 39, 67-68, 90, 207, 325-326, 333-335, 336-339. See also Carotidynia; Cervical pain; Eagle's syndrome; Fibromyalgia; Giant cell arteritis; Odontogenic pain; Pain, widespread; Rheumatoid arthritis; Systemic arthritides Norpramin. See Desipramine Nortriptyline, 23, 36, 63, 114, 283, 322–323 NSAIDs. See Nonsteroidal anti-inflammatory medications

NTI (Nociceptive Trigeminal Inhibition Tension Suppression System), 153, 160 Nutritional supplements, 275, 278, 289-290 Obstructive sleep apnea appliances, 120-122 occlusal changes, 121, 218, 219 symptoms, 23, 36, 207, 322-323 TMD-like symptoms, 23, 36, 207, 322-323 TMD symptoms from appliance, 120–122 Occipital pain, 52 Occlusal adjustment, 65, 297-300, 319-320, 375 Occlusal changes, 34, 61-62, 77, 90, 91, 97, 116-118, 119-120, 125-127, 153, 154, 159-160, 168, 204, 205, 218-219, 355, 387 causing TMD, 97, 119-120 secondary to anterior positioning appliance, 218-219 secondary to athletic mouthpiece, 154, 168 secondary to condylysis, 62, 77, 90 secondary to lateral pterygoid muscle, 62, 77, 116-118, 125-127, 355 secondary to neoplastic growth, 77 secondary to NTI, 153, 160 secondary to obstructive sleep apnea appliance, 121, 218, 219 secondary to over-the-counter appliances, 204 secondary to sleep apnea appliance, 121, 218, 219 secondary to stabilization appliance, 154, 159-160, 205 secondary to systemic arthritides, 90 secondary to TMJ arthralgia, 62, 77, 116-118 secondary to TMJ osteoarthritis, 61, 77 Occlusal equilibration, 65, 297-300, 319-320, 375 Occlusal interference sequelae, 97, 111, 119-120, 295, 296 Occlusal interferences, 64-65, 97, 119-120, 295-303, 320, 334, 374, 375 Occlusal stability, 162-164, 171, 223, 295-8, 300, 302-303, 319, 323 Occlusion, 119-120, 295-298, 359. See also Malocclusion; Occlusal stability Occlusion, on appliances anterior positioning, 216-218 stabilization appliances, 178-184

Odontalgia caused by parafunctional habits, 65-66 contributing to TMD symptoms, 15–16, 33, 39, 62-65, 111, 325, 333-335, 370, 371 referred from TMD structures, 65-67 Odontogenic pain, 15-16, 33, 39, 62-65, 111, 325, 333-335, 370, 371 OnabotulinumtoxinA, 250, 316 Open bite anterior, 17, 27, 34, 61, 68, 77, 89-90, 387 posterior, 34, 61-62, 68, 77, 91, 93, 121, 218-220, 306-307, 387 Open lock. See TMJ, luxation; TMJ, subluxation OQAQ, 379 Oral habits. See Habits, parafunctional Orthodontic therapy, 98, 160, 218, 220, 295, 298, 300-302, 313, 374, 415 Orthognathic surgery, 205, 298, 302, 313, 361, 372 Orthopedic stability. See Occlusal stability Orthotics. See Occlusal appliances Osseous changes, within TMJ, 71-72, 74, 75-77, 82, 88-92 Osteitis, 111, 353-354 Osteoarthritis, 17, 27, 34, 61, 77, 83, 90, 149, 285, 287, 289-290 Osteoarthrosis, 83, 90 Osteochondritis dissecans, 83, 90 Osteonecrosis, 83, 90 Otologic symptoms, 1-3, 52, 56, 60, 92, 169, 371, 372 Over-the-counter medications, 118, 231, 236, 276, 278-279, 284-286, 290, 396 (also on accompanying CD) Over-the-counter appliances, 204 Overuse of muscles, 19, 26, 92, 94, 118, 231, 237, 248, 395 Overview Quality Assessment Questionnaire, 379 Pain acute, 86-87, 92-93, 103-148, 168, 276, 277, 279-281, 319 case scenarios, 333-336, 349-350, 353-358 cervical pain, 18-19, 49, 60, 315. See also

character. *See* Pain, quality chronic, 3, 25, 103, 276, 319

Cervical pain

concomitant symptoms with, 3, 11–27, 33–38, 48–50, 61–64, 67–68, 223–225, 321, 324

deep, 62, 118 description, 14-17, 322-361 duration, 17 in ear, 1, 52, 56, 60, 92, 372, 359 in or around eye (periorbital), 12, 48-52, 338 in forehead, 48, 50-53, 337-339 frequency, 17 headache cervicogenic, 18, 48-50, 251-252, 317 migraine, 1, 14, 18-19, 33, 290, 321, 338 sinus, 16-17, 33, 34, 40, 65, 67, 321, 336-337 tension-type (muscle tension), 1, 18-19, 290 treatment recommendation table, 18 intensity, 17 muscle-overuse, 19, 26, 92, 94, 118, 231, 237, 248, 395 in neck. See Cervical pain in occipital, 52 periorbital, 12, 48-52, 338 in post-auricular, 52 quality, 14–16, 27, 33, 68 referred, 12–19, 40, 45–67, 111, 333–336, 338-339, 349, 360, 371 sinus, 16-17, 33, 34, 40, 65, 67, 321, 336-337 throbbing, 14-16, 33, 63, 333-335, 338, 359 tooth caused by parafunctional habits, 65-66 contributing to TMD symptoms, 15–16, 33, 39, 62-65, 111, 325, 333-335, 370, 371 referred from TMD structures, 65-67 in vertex, 52 widespread, 3, 19, 23, 94, 225, 321, 324, 325, 332, 344-345, 420 Palpation, 39-40, 44-61, 65-67, 110-111 additional, 51-60 cursory for dental patients, 111-114, 118 initial recommended, 44-51 more intense, 50-51, 57, 59, 66 structures anterior digastric muscle, 51-55 carotid artery, 45-48 cervical muscles, 45-46, 48-57 lateral pterygoid area, 52-54, 57-58, 111 masseter muscle, 45-48, 54, 111 medial pterygoid muscle, 52-54, 58-59 posterior digastric muscle, 51–56 splenius capitis muscle, 45-46, 48-50, 54

sternocleidomastoid muscle, 53-54, 56 stylomandibular ligament, 59-60 temporalis muscle, 45-49, 51-55, 59, 111 temporalis tendon, 52-54, 59 thyroid, 45-48 TMJ, 45-47, 50-54, 111 trapezius muscle, 45-46, 48-50, 54 tables/figures additional TMD palpations, 53 dental patient palpations for, 111 initial TMD palpations, 46 recommended initial TMD palpations, 46 sites referred pain felt maps, 54 sources of referred pain generation maps, 52 Pamelor. See Nortriptyline Panoramic radiograph, 71, 72-73, 76-78, 91, 106-107, 128, 143, 207, 325, 414 Paraflex. See Chlorzoxazone Partial-coverage appliances, 154, 159-161, 171 Patient(s) advocacy group, 415 books, 415 brochures, 415 compliance, 27, 225-226, 230, 232, 236, 239, 268, 325 handouts, 393-403 (also on accompanying CD) interview, 5-8, 11-27, 31-38, 262 questionnaire, 31-38, 389-392 (also on accompanying CD) Pennsaid, 286-288 Periodontal disease, 62, 64, 76, 98, 100, 154, 161, 376 analogy for TMD, 98, 100 Periodontal ligament inflammation, 65 Periodontal ligamentary injection, 64, 66-67, 118, 334, 370 Pharmacologic management, 275–290 acute symptoms, 103-141, 276, 277, 279-282, 319 case scenarios, 333-336, 349-350, 353-358 analgesic creams, 284-289, 342 analgesics, 107, 277-280, 284-289, 342 chronic symptoms, 103, 276, 319 corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 counterirritant creams, 231, 284-285 COX₂ inhibitors, 278, 279 long-term management, 276, 319

Pharmacologic management (continued) muscle relaxants central acting, 63, 108, 113-118, 120, 128, 141, 275, 280-281, 322-323, 332, 343, 350, 352, 353, 356, 358 peripheral acting, 281-282 nonsteroidal anti-inflammatory medications (NSAIDs) ingested, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 topical, 286-288, 342 nutritional supplements, 275, 278, 289-290 over-the-counter medications, 231, 236, 278-279, 284-286, 290, 396 selective serotonin reuptake inhibitor (SSRI), 276-277, 284 sodium hyaluronate, 142, 305, 351 topical medications, 284-289, 342 tricyclic antidepressants, 103, 275, 276, 282-284, 319, 323, 324, 326, 338, 357 Phonophoresis, 351, 280 Physical medicine, 247-257 Physical therapy, referral, 60, 249, 250-254, 282, 308, 316, 321, 324, 326, 377-378 case scenarios, 338-339, 343, 344, 348, 351-352, 358, 360 examples, 409-410 exercises, 251-252 how to write, 253, 409-410 modalities, 251 recommendations for, 251-253 scope of care within, 19, 39, 60, 250 selecting therapist, 253-254 Physician referrals case scenarios, 335, 337, 345 from, 12, 60, 335, 371 to, 14, 17-19, 25, 27, 33-38, 48, 60, 67, 68, 90, 207, 250, 254, 266, 276, 277, 279, 284, 321, 323 Population for study, 365, 366, 376, 380 Positioning appliance. See Anterior positioning appliance Post-auricular pain, 52 Posterior digastric muscle pain from, 115, 133, 357-358 palpation, 51-56 referred pain from, 54 Posterior open bite, 34, 61-62, 68, 77, 91, 93, 121, 218-220, 306-307, 387

Posttraumatic stress disorder (PTSD), 23, 36, 325 Posture exercises for, 239-240, 315, 401-404 (also on accompanying CD) importance, 239-240, 315, 377 Practice-based research, 369 Practice management businesses, 416 Predisposing contributing factors, 97, 106, 300, 420 Prescribing regimens, 107-108, 279, 281, 332 Pressure cured mandibular acrylic stabilization appliances, 191-193 Preventing aggravation from dental treatment, 111-114, 118 Primary diagnosis, 5-7, 81-82, 421 Progressively increasing anterior open bite, 17, 27, 34, 61, 68, 77, 89–90, 387 Prosthesis, for TMJ, 11, 13, 27, 68, 77, 308, 321 Prosthodontic therapy, 2, 158–159, 218, 223, 297-298, 302-304, 313 Pseudodisc of TMJ, 81, 84 Pseudoephedrine HCl. See Sudafed Psychiatrist, referral to, 25, 37, 277, 313, 321, 326, 344 Psychologist, referral to, 2, 23–25, 37, 101, 107, 135, 223, 229, 321, 264-269, 317, 321-326 case scenarios, 342-345, 358 examples, 411-412 recommendations for, 229, 244, 264-269 selecting therapist, 261, 265-266 Psychosocial contributors, 1, 24–25, 100, 103, 107, 261-262, 321, 324-326, 343-344 depression, 1, 24-25, 100, 103, 107, 261-262, 321, 324-326, 343-344 frustrations, 24, 101, 271, 323, 421 management, 313, 321, 343-344 stress, 1, 6, 24, 98, 101, 103, 241, 261 PTSD. See Posttraumatic stress disorder PubMed, 365, 379 Pulpalgia caused by parafunctional habits, 65-66 contributing to TMD symptoms, 15–16, 33, 39, 62-65, 111, 325, 333-335, 370, 371 Questionnaire, initial patient, 31-38, 389-392 (also on accompanying CD) Qutenza, 286

()

Randomized controlled trial (RCT), 376-378 cross-over form, 378 parallel-group form, 377-378 Range of motion, 40-43, 332 Recommendation tables for appliance alternatives for dental patients, 63 for additional palpations, 53 for imaging, 76 for initial palpations, 46 for maxillary or mandibular stabilization appliance, 164 for palpations additional TMD, 53 for dental patients, 111 initial TMD, 46 for physical therapy referral, 251 for preventing TMD aggravation from dental treatment, 118 for referrals physical therapist, 251 specialist, 27, 68 for sinus pain, 17 for therapies for awakening symptoms, 322-323 for both awakening and daytime symptoms, 324 for daytime symptoms, 323-324 for headache, 18 Record entry example, 407-408 Reduced disc-condyle position, 20, 22, 85, 137-138, 207, 213, 421 Referrals to chiropractics, 255-256, 317 from hygienists, criteria, 387 (also on accompanying CD) to physical therapy, 60, 249, 250-254, 282, 308, 316, 321, 324, 326, 377-378 case scenarios, 338-339, 343, 344, 348, 351-352, 358, 360 examples, 409-410 exercises, 251-252 how to write, 253, 409-410 modalities, 251 recommendations for, 251-253 scope of care within, 19, 39, 60 selecting therapist, 253–254 from physician, 12, 60, 335, 371

to physician, 14, 17–19, 25, 27, 33–38, 48, 60, 67, 68, 90, 207, 250, 254, 266, 276, 277, 279, 284, 321, 323 case scenarios, 335, 337, 345 to psychiatrist, 25, 37, 277, 313, 321, 326, 344 to psychologist, 2, 23-25, 37, 101, 107, 135, 223, 229, 321, 264-269, 317, 321-326 case scenarios, 342-345, 358 examples, 411-412 recommendations for, 229, 244, 264-269 selecting therapist, 261, 265-266 receiving, 12, 60 recommendation tables physical therapist, 251 specialist, 27, 68 specialist (advanced training in TMD), 11, 13, 16, 17, 21, 27, 61–62, 68, 77, 89–90, 106, 321, 416 for TMJ surgery, 304-308. See also TMJ, surgery Referred pain, 12-19, 40, 45-67, 111, 333-336, 338-339, 349, 360, 371 maps, 52, 54 Relaxation, 235, 261, 263-271, 318 Reline of appliances external, 184-188 internal, 175-178 Remineralization of TMJ. See Osseous changes within TM] Remodeling of condyle, 71, 82, 89 Resilient appliances. See Soft thermoplastic stabilization appliances Restorations alternatives to appliance therapy for, 62-63, 113-114 preventing TMD during, 111-114, 118 appliance's internal surface changes for, 177-178, 200 TMD secondary to, 109-120, 353-354, 359-360 etiology, 109-120 inability to close into MI, 116-119. See also Lateral pterygoid muscle, spasm; TMJ, luxation medial pterygoid muscle pain, 110, 114-116, 342-343 obstructive sleep apnea appliances, 120-122 occlusal interference sequelae, 111, 119–120 predisposed patients, 98, 109, 110, 112

Restorations (continued)

pretreatment palpations, 98, 110-111

prevention, 111-114, 118 Retrodiscal tissue pseudodisc, 81, 84 stretching exercise, 139-142, 350-352 Rheumatoid arthritis, 71, 82, 86, 90, 99 Riboflavin. See Vitamin B-2 Robaxin. See Methocarbamol Rofecoxib, 278 S-Adenosylmethionine (SAMe), 290 Secondary diagnosis, 6-7, 81-82, 421 Secondary gain, 11, 14, 100, 421 Selective serotonin reuptake inhibitor (SSRI), 276-277, 284 Self-management therapy breaking daytime habits, 23-24, 99, 135, 240-244, 261-266, 317, 321-322, 342 external cues, 241-242, 267, 420 internal cues, 242, 267, 327, 420 caffeine consumption, 233–236, 314, 326, 396 closure muscle-stretching exercise, 236-238, 315, 399-400 (also on accompanying CD) diet restrictions, 93, 107, 233-234, 396 heat thermotherapy, 114-115, 141, 224, 231-232, 236, 237 instructions, 395–396 (also on accompanying CD) lateral pterygoid stretching exercise, 93, 116-119, 127-128, 355-356 muscle massage, 2, 118, 135, 136, 229, 230-231, 248-249, 314, 395 (also on accompanying CD) over-the-counter medications, 118, 231, 236, 276, 278-279, 284-286, 290, 396 (also on accompanying CD) posture exercises, 239-240, 315, 401-403 (also on accompanying CD) ThermaCare, 232, 286 thermotherapy, 107, 114-115, 141, 224, 231-232, 236, 333-335, 237 trigger-point compression, 231, 248, 249, 314 Sex differences, 1-2, 90, 304, 374 Significance of results clinical, 372 statistical, 372 Signs of TMD, primary, 1

Silastic disc replacement implants, 11, 13, 27, 68, 77, 308, 321 Singing, 25, 37 Sinus congestion or pain, 16-17, 33, 34, 40, 65, 67, 321, 336-337 medications table for, 17 Sleep poor, 19, 22-23, 36, 107, 233, 269, 282-283, 318, 321, 322-324, 343-345 quality, 22-23, 36, 345 Sleep apnea appliances, 120-122 occlusal changes, 121, 218, 219 symptoms, 23, 36, 207, 322-323 TMD like symptoms, 23, 36, 207, 322-323 TMD symptoms from appliance, 120-122 Sodium hyaluronate, 142, 305, 351 Soft palate uniform movement, 61 Soma. See Carisoprodol SORT, 367 Spasm lateral pterygoid muscle, 22, 36, 57-58, 83, 87, 93, 116-117, 125-129, 132, 169, 296, 354-356, 414, 420 clinical features, 22, 36, 87, 116-117, 125-128, 132, 169, 296, 354-356 illustration, 19-20, 126-127 medial pterygoid muscle, 114-116, 342-343 Splenius capitis muscle palpation, 45-46, 48-50 referral from, 54 Splints. See Occlusion, on appliances SSRI (selective serotonin reuptake inhibitor), 276-277, 284 Stability, occlusal, 162–164, 171, 223, 295–8, 300, 302-303, 319, 323 Stabilization appliances, 153-209 acrylic, 163-166, 191-195, 216-218 adjustment, 153-155, 172-190, 204-205 external adjustments for, 178-184 implant supported crowns, 182-183, 217-218 external reline of, 184-188 internal adjustments for, 172-175 implant supported crowns, 152 internal reline of, 175-178 repair, 188-190 allergy from, 165, 166, 172 Astron, 166

()

athletic mouthpiece, 154, 163, 168, 201-204 bisphenol A (BPA) within, 151–152 care for, 397–398 (also on accompanying CD) caries and restorations, 62-63, 113, 150, 154, 158-159, 160, 177-178, 200, 220 centric relation (CR), 153-154, 155-157, 303, 419 daytime wear, 154, 205, 315 dental implants with, 152, 182-183, 217-218 description, 150-151, 154, 421 dual laminate thermoplastic, 166-167, 170, 188, 200-201 Eclipse, 165, 166 efficacy, 224, 243, 263, 268 efficacy theories, 154-155 examples, 190-204 dual laminate thermoplastic, 200-201 hard thermoplastic, 195-199 Impak, 199-200 maxillary acrylic, 193-195 pressure cured mandibular acrylic, 191-193 soft thermoplastic, 201-204 external adjustments for, 178–184 implant supported crowns, 182-183, 217-218 external reline, 184-188 full-coverage, 154, 159-160, 171 habit-breaking, 160, 164, 171, 183, 195-199, 205-206, 242-244, 342 hard acrylic, 164-166, 191-195 hard thermoplastic, 165-166, 195-199 hybrid appliance material, 166-167, 188, 199 - 200Impak, 151, 153, 165-167, 172, 188, 199-200, 204 implant supported crowns, 152, 182-183, 217-218 impressions with restricted opening for, 142 intermediate softness appliance materials, 164-167, 200-201 internal adjustments for, 172-175 implant supported crowns, 152 internal reline of, 175-178 interocclusal record for, 153-154, 155-158, 360-362 laboratory instructions for, 405-406 (also on accompanying CD) management for, 204–209 mandibular, 160-161, 171, 191-193, 195-199

mandibular positions for, 153–154, 155–158, 360-362 maxillary, 160-164, 171, 193-195 maxillary acrylic, 193-195 mechanisms, 154-155 nighttime wear, 154, 205, 315 neutral position, 157, 214, 307, 420 nocturnal wear, 154, 205, 315 occlusal stability, 162-164, 171, 223, 295-298, 300, 302-303, 319, 323 opposing appliances, 203-204, 208, 315, 322, 341 over-the-counter appliances, 204 partial coverage, 154, 159-161, 171 pressure cured mandibular acrylic, 191-193 reline external, 184-188 internal, 175-178 repair, 188-190 restorations and caries, 62-63, 113, 150, 154, 158-159, 160, 177-178, 200, 220 restricted opening with, 142 retention, 170-171 soft thermoplastic, 167-169, 201-204 strategies for restorative needs theories of efficacy, 154–155 thickness, 158, 167, 169-170, 178, 183-184, 188, 192–193, 195–196, 200–202, 405-406 TMJ subluxation or luxation for, 149, 315 TMJ loading effect from, 82, 134, 147, 155, 158, 307 two opposing appliances, 203-204, 208, 315, 322, 341 Staff referral criteria, 351 Sternocleidomastoid muscle palpation, 53, 56 referred pain from, 54 Steroidal anti-inflammatory medications, 108, 141, 279–280, 350, 352, 355, 358 Stethoscope, use, 43 Strength-of-Recommendation Taxonomy (SORT), 367 Stress, 1, 6, 24, 98, 101, 103, 241, 261 Stress management, 263-265, 271, 317, 319, 323, 411-412 Stretching exercises closure muscle-stretch, 236-238, 315, 399-400 (also on accompanying CD)

Stretching exercises (continued) lateral pterygoid stretch, 93, 116-119, 127-128, 355-356 medial pterygoid spasm-stretch, 114-116, 342-343 posture for, 239-240, 315, 401-403 (also on accompanying CD) retrodiscal tissue, 139-142, 350-352 tongue depressors to forcibly stretch, 116 Stretching test, 21, 41, 93–94, 117, 127–128, 351, 355 Stretching with tongue depressors, 116 Study design, 369-378 generalizable, 366, 370, 380 hypothesis, 367, 380 outcome measures, 365, 367, 380 population, 365-366, 380 question, 365, 367 registration, 367 retrospective, 371, 373, 376 Stylomandibular ligament, 59–60 Subjects blinded (masked), 375-377, 380 drop out, 376 follow-up, 365, 376–377, 380 masked, 375-377, 380 Subluxation, 20-22, 89, 106, 145-148, 315, 442 stabilization appliance for, 149, 315 Sudafed, 17, 65, 337 Suicide, 25, 37, 391 (also on accompanying CD) Summaries of TMD therapies, 313–324 Supplements, nutritional, 275, 278, 289-290 Surgery, of TMJ, 304-308 alloplastic disc implants, 142-143, 280, 304-306, 320, 351-352 arthrocentesis, 142-143, 280, 304-306, 320, 351-352 arthroscopy, 304, 306-307, 351-352 case scenarios, 351-352 disc replacement implants, 11, 13, 27, 68, 77, 308, 321 joint replacement implants, 11, 27, 68, 74, 77, 306-308, 321 modified condylotomy, 89, 306, 307 open joint surgery, 89, 305-307 prosthesis, 11, 27, 68, 74, 77, 306-308, 321 referral recommendations, 304-306

Teflon-Proplast or Silastic implants, 11, 13, 27, 68, 77, 308, 321 Swollen or puffy region, 17, 35, 61, 76, 77, 91, 306–307 Synovial chondromatosis, 83, 91 Synovitis. *See* TMJ, arthralgia Systematic reviews, 379 Systemic arthritides, 7, 35, 71, 82, 83, 89, 90 Systemic contributors to TMD, 7, 18–19, 35, 71, 82, 83, 89, 90, 94–95, 99, 344

Tables

additional palpations, 53 appliance alternatives, 63 diagnostic categories and diagnoses, 83 events that patients related to TMD onset, 93 headache patients' treatment recommendations, 18 hygienists' referral criteria, 387 imaging recommendations, 76 initial palpations recommended, 46 maxillary or mandibular appliance, 164 palpations, 46, 53, 111 patients recommend refer, 27, 68 physical therapy referral, 251 postoperative causes for TMD symptoms, 111 prevention of TMD from dental treatment, 118 sinus pain medications, 17 specialist referral recommended, 27, 68 stabilization appliance alternatives, 63 tooth contributing to TMD, 15, 111 therapies for awakening/daytime symptoms, 322-324 TMD diagnostic categories and diagnoses, 83 onset events, 93 treatment causing, 111 treatment prevention, 118 unlock closed lock techniques, 135 Team approach, 223-225, 313-314, 321-324 Teflon-Proplast implants, 11, 13, 27, 68, 77, 308, 321 Temporal arteritis, 26-27, 38 Temporalis muscle palpation, 45-49, 51-55, 59, 111 referred pain from, 54 stretching, 115, 236-238, 315, 399-400 (also on accompanying CD)

()

Temporalis tendon palpation, 52-54, 59 referred pain from, 54 Temporomandibular disorder. See TMD Temporomandibular joint. See TMJ Tender nodules. See Trigger points Tendonitis, 59, 83, 92 Tertiary diagnosis, 6-7, 81-82, 422 Tests anesthetic, 40, 64, 66-67, 118, 334, 370 clenching teeth, 68 cold, 63, 333-335 stretching, 21, 41, 93-94, 117, 127-128, 351, 355 Therapies acupuncture, 224, 254-255, 316-317 adjunctive therapies, 247-248, 261-262, 301, 321, 324, 366, 372 altering due to dental caries, 62-65, 110-114, 116-120, 154, 177-178, 200, 295, 296, 320, 333-335 anterior positioning appliances, 137–139, 213-221, 349-350 athletic mouthpiece, 154, 163, 168, 201-204 awakening symptoms, 7, 13, 23, 62, 98-99, 134, 141, 205, 207, 281–283, 296, 322-324, 339-340 medications for, 23, 63, 113-115, 280-281, 282-283, 322-323, 332, 352 occlusal appliance for, 154, 205, 315 biofeedback, 247, 261, 263-265, 269-271, 317-319, 321-323, 342, 357-358, 411, 419 cervicogenic headache, 18, 48-50, 251-252, 317 chiropractics, 255-256, 317 cognitive behavioral intervention, 1, 223, 244, 261-271, 276, 411-412 cold thermotherapy, 107, 224, 231-232, 333-335 compliance with therapy, 27, 225-226, 230, 232, 236, 239, 268, 325 corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 counterirritant creams, 231, 284-285 daytime symptoms for, 13, 23-24, 99-101, 317, 341–342 biofeedback, 247, 261, 263-265, 269-271, 317-319, 321-323, 342, 357-358, 411, 419

breaking daytime habits, 23–24, 99, 135, 240-244, 261-266, 317, 321-322, 342 cognitive behavioral intervention, 1, 223, 244, 261-271, 276, 411-412 habit breaking appliance, 160, 164, 171, 183, 195–199, 205–206, 242–244, 342 hypnotherapy, 269, 318 occlusal appliance for, 160, 164, 171, 183, 195-199, 205-206, 242-244, 342 relaxation, 235, 261, 263-271, 318 stress management, 263-265, 271, 317, 319, 323, 411-412 tricyclic antidepressants for, 283, 323, 358 efficacy, 3, 224–225, 229–230, 236, 240, 243, 263, 268, 269 electrical stimulation, 251 exercises closure muscle-stretch, 236-238, 315, 399–400 (also on accompanying CD) lateral pterygoid stretch, 93, 116-119, 127-128, 355-356 medial pterygoid spasm-stretch, 114-116, 342-343 posture, 239-240, 315, 401-403 (also on accompanying CD) retrodiscal tissue stretch, 139-142, 350-352 tongue depressors to forcibly stretch, 116 habit reversal, 229, 235, 240-244, 262-269, 317 external cues/internal, 241-242, 267, 327, 420 hyaluronic acid. See Sodium hyaluronate hypnosis, 269, 318 hypnotherapy, 269, 318 integrating conservative TMD therapies, 321-324 integrating multidisciplinary therapies, 313-327 long-term management, 319, 320, 326-327 magnetic therapy, 256-257, 317 massage therapy, 2, 118, 135, 136, 229, 230-231, 248-249, 314, 395 (also on accompanying CD) MENS (microcurrent electrical nerve stimulation), 251 motivating patient, 24, 100, 236, 239, 267-268, 318 muscle relaxants

Therapies (continued) central acting, 63, 108, 113-118, 120, 128, 141, 275, 280-281, 322-323, 332, 343, 350, 352, 353, 356, 358 peripheral acting, 281–282 occlusal adjustment, 65, 297-300, 319-320, 375 occlusal equilibration, 65, 297-300, 319-320, 375 occlusal stability, 162-164, 171, 223, 295-8, 300, 302-303, 319, 323 orthodontic therapy, 98, 160, 218, 220, 295, 298, 300-302, 313374, 415 orthognathic surgery, 205, 298, 302, 313, 361, 372 orthopedic stability. See Occlusal stability pharmacological management, 275-290 acute symptoms for, 103-141, 276, 277, 279-282, 319 case scenarios, 333-336, 349-350, 353-358 analgesic creams, 284-289, 342 analgesics, 107, 277-280, 284-289, 342 chronic symptoms for, 103, 276, 319 counterirritant creams, 231, 284-285 corticosteroids, 108, 141, 279-280, 350, 352, 355, 358 COX₂ inhibitors, 278, 279 long-term management, 276, 319 muscle relaxants central acting, 63, 108, 113-118, 120, 128, 141, 275, 280-281, 322-323, 332, 343, 350, 352, 353, 356, 358 peripheral acting, 281-282 nonsteroidal anti-inflammatory medications (NSAIDs) ingested, 103, 108, 113, 118, 141, 277-279, 340, 350, 352, 355-356, 258 topical, 286-288, 342 nutritional supplements, 275, 278, 289-290 over-the-counter medications, 118, 231, 236, 276, 278-279, 284-286, 290, 396 (also on accompanying CD) selective serotonin reuptake inhibitor (SSRI), 276-277, 284 sodium hyaluronate, 142, 305, 351 steroidal anti-inflammatory medications, 108, 141, 279–280, 350, 352, 355, 358

topical medications, 284-289, 342 tricyclic antidepressants, 103, 275, 276, 282-284, 319, 323, 324, 326, 338, 357 phonophoresis, 351, 280 physical medicine, 247-257 physical therapy, referral to, 60, 249, 250-254, 282, 308, 316, 321, 324, 326, 377-378 case scenarios, 338-339, 343, 344, 348, 351-352, 358, 360 examples, 409-410 how to write, 253, 409-410 recommendations for when, 251-253 scope of care within, 19, 39, 60, 250 selecting therapist, 253-254 physicians, referrals from, 12, 60, 335, 371 physicians, referrals to, 14, 17-19, 25, 27, 33-38, 48, 60, 67, 68, 90, 207, 250, 254, 266, 276, 277, 279, 284, 321, 323 case scenarios, 335, 337, 345 post-dental treatment, 109-120, 353-354, 359-360 post-traumatic, 34, 76, 87, 88, 91, 93, 95, 98, 105–108, 114, 133, 306 imaging, 76, 106 treatment, 107-108, 277 prosthodontic therapy, 2, 158-159, 218, 223, 297-298, 302-304, 313 psychiatrist referral, 25, 37, 277, 313, 321, 326, 344 psychologist referral, 2, 23-25, 37, 101, 107, 135, 223, 229, 321, 264–269, 317, 321-326 case scenarios, 342-345, 358 examples, 411-412 recommendations for, 229, 244, 264-269 selecting therapist, 261, 265-266 refractory to initial therapy, 324-326 relaxation, 235, 261, 263-271, 318 scope of care, 19, 39, 60, 250 secondary to trauma, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306, 419 imaging, 76, 106 treatment, 107-108, 277 self-management therapy breaking daytime habits, 23-24, 99, 135, 240-244, 261-266, 317, 321-322, 342 external/internal cues, 241-242, 267, 327, 420

(

caffeine consumption, 233-236, 314, 326, 396 closure muscle-stretching exercise, 236-238, 315, 399-400 (also on accompanying CD) diet restrictions, 93, 107, 233-234, 396 heat thermotherapy, 114-115, 141, 224, 231-232, 236, 237 instructions, 395-396 (also on accompanying CD) lateral pterygoid stretching exercise, 93, 116-119, 127-128, 355-356 muscle massage, 2, 118, 135, 136, 229, 230-231, 248-249, 314, 395 (also on accompanying CD) over-the-counter medications, 118, 231, 236, 276, 278-279, 284-286, 290, 396 (also on accompanying CD) posture exercises, 239-240, 315, 401-403 (also on accompanying CD) ThermaCare, 232, 286 thermotherapy, 107, 114–115, 141, 224, 231-232, 236, 333-335, 237 trigger-point compression, 231, 248, 249, 314 stabilization appliances. See Stabilization appliances stress management, 263-265, 271, 317, 319, 323, 411-412 stretching exercises closure muscle-stretch, 236-238, 315, 399–400 (also on accompanying CD) lateral pterygoid stretch, 93, 116-119, 127-128, 355-356 medial pterygoid spasm-stretch, 114-116, 342-343 posture for, 239-240, 315, 401-403 (also on accompanying CD) retrodiscal tissue, 139-142, 350-352 tongue depressors to forcibly stretch, 116 summaries, of therapies, 313-324 surgery. See TMJ, surgery topical medications, 284-289, 342 trigger-point injection, 40, 249-250, 316 ultrasound, 75 yoga, 224, 249, 268, 316 Thermoplastic stabilization appliances dual laminate, 167, 200-201 hard, 165-166, 195-199

soft, 167-169, 201-204 over-the-counter, 204 Thyroid, 45–48 Tinnitus, 1-3, 169, 370, 372 TMD acute conditions, 86-87, 92-93, 103-148, 168, 276, 277, 279-281, 319 case scenarios, 333-336, 349-350, 353-358 advocacy group, 415 awakening symptoms, 7, 13, 23, 62, 98-99, 134, 141, 205, 207, 281–283, 296, 322-324, 339-340 medications for, 23, 63, 113-115, 280-281, 282-283, 322-323, 332, 352 occlusal appliance for, 154, 205, 315 books for patients and practitioners, 415-417 brochures for patients, 415 cardinal signs and symptoms, 1 chronic conditions, 3, 25, 103, 276, 319 clearance for orthodontic therapy, 301 concomitant symptoms with, 3, 11–27, 33–38, 48-50, 61-64, 67-68, 223-225, 321, 324 contributing factors. See Contributing factors daytime symptoms. 13, 23-24, 99-101, 317, 341-342. See also Habits, parafunctional daytime deep pain, 62, 118 definition, 1,3 diagnoses, 81-95 efficacy of therapy, 3, 224-225, 229-230, 236, 240, 243, 263, 268, 269 by general dentists, 3, 225 epidemiology, 1-2, 374 follow-up importance, 25, 40, 104, 116, 129, 158, 408 handouts for patients, 393-403 (also on accompanying CD) history, 2-3 imaging. See Imaging information for patients, 393-403 (also on accompanying CD), 415 initial evaluation. See Initial evaluation initiating contributing factors, 98, 420 journals, 417 loading TMJ anterior positioning appliances, 151, 155, 213-214 arthralgia, 140, 277, 304-305, 313, 358 centric relation, 157, 158

444

TMD (continued) closed lock, 133-134 disc adherence, 83, 88, 143 disc adhesions, 88 disc displacement with reduction with intermittent locking, 133-134, 352 without reduction with limited opening, 133-134 muscle activity causing, 71-72, 82, 134, 234, 313, 358 nociceptive trigeminal inhibition appliance (NTI), 153, 160 occlusal appliance, effect on, 82, 134, 147, 151, 155, 157, 160, 213, 214 osteoarthritis effect, 72 pain causing, 14 parafunctional habits causing, 71, 82, 133, 134, 155, 234, 313, 352, 358 pseudodisc formation, 81, 84 stabilization appliance, effect on, 82, 134, 147, 155, 158, 307 TMD symptom effect, 71–72, 91, 133–134, 140, 230, 234, 277, 307, 313, 352, 358 long-term management, 319, 320, 326-327 multidisciplinary therapies. See Therapies multifactorial disorder, 2-3, 223-225, 295-298, 313-314 muscle-overuse, 19, 26, 92, 94, 118, 231, 237, 248, 395 malocclusion due to, 97, 119-120 organizations, 416 orthodontic clearance, 301 overuse of muscles, 19, 26, 92, 94, 118, 231, 237, 248, 395 palpation, 39-40, 44-61, 65-67, 110-111. See also Palpation, structures tables, 46, 53, 111 perpetuating contributing factors, 6, 98-100, 103, 106–107, 142, 224–225, 230, 247, 343-345, 420 practice management businesses, 416 predisposing contributing factors, 97, 106, 300, 420 prevalence, 1-2, 372, 374 primary signs and symptoms, 1, 3, 12-13, 103, 387 professional organizations, 416

post-dental care for, 109-120, 353-354, 359-360 postoperative causes for symptoms, table, 111 post-trauma, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306 imaging, 76, 91, 106 treatment, 107-108, 232, 277 publications, 416-417 referral criteria for hygienists, 387 referred pain, 12-19, 40, 45-67, 111, 333-336, 338-339, 349, 360, 371 refractory to initial therapy, 324-326 scope of care within, 19, 39, 60 secondary to dental care etiology, 109-120 inability to close into MI, 116-119. See also Lateral pterygoid muscle, spasm; TMJ, luxation medial pterygoid muscle pain, 110, 114-116, 342-343 obstructive sleep apnea appliances, 120–122 occlusal interference sequelae, 111, 119-120 predisposed patients, 98, 109, 110, 112 pretreatment palpations, 98, 110-111 prevention, 111-114, 118 secondary to trauma, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306 imaging, 76, 106 treatment, 107-108, 277 sex differences, 1-2, 90, 304, 374 stress interrelation, 1, 6, 24, 98, 101, 103, 241, 261 symptoms acute, 86-87, 92-93, 103-148, 168, 276, 277, 279-281, 319 case scenarios, 333-336, 349-350, 353-358 awakening, 7, 13, 23, 62, 98-99, 134, 141, 205, 207, 281-283, 296, 322-324, 339-340 medications for, 23, 63, 113-115, 280-281, 282-283, 322-323, 332, 352 occlusal appliance for, 154, 205, 315 cardinal, 1 chronic, 3, 25, 103, 276, 319 cold beverage aggravation, 15–16, 33, 40, 63 concomitant symptoms with, 3, 11-27, 33-38, 48-50, 61-64, 67-68, 223-225, 321, 324

correlations, 1, 13, 22–24, 44, 75, 233–234, 267, 271 daytime, 13, 23-24, 99-101, 317, 341-342 description, 14-19, 322-361 duration, 17 frequency, 17 intensity, 17 muscle-overuse, 19, 26, 92, 94, 118, 231, 237, 248, 395 nighttime, 7, 13, 23, 62, 98–99, 134, 141, 205, 207, 281-283, 296, 322-324, 339-340 noise click, 20, 22, 43, 84-86, 131-132, 156, 207, 215, 220, 345-349, 422 crepitus, 20, 43, 89, 156, 346, 419 patterns, 7, 13, 98-99, 134, 205, 322-324 primary, 1, 3, 12-13, 103, 387 quality, 14-16, 27, 33, 68 tooth contributing to, 15-16, 33, 39, 62-65, 111, 325, 333-335, 370, 371 textbooks, 416-417 therapies. See Therapies treatment efficacy, 3, 224-225, 229-230, 236, 240, 243, 263, 268, 269 by general dentists, 3, 225 treatment summaries, 313-324 ThermaCare, 232, 286 TMI acute disc displacement without reduction. See TMJ, disc displacement without reduction with limited opening adherence, 83, 88, 143 adhesions, 88 anatomy, 19-20 ankylosis, 21, 74, 83, 88-89, 116, 304, 306, 307, 321, 413 anterior displacement. See TMJ, various entries for disc displacements arthralgia, 47, 71–72, 77, 82–83, 87, 106, 113, 117, 120, 126–129, 132–133, 140–141, 156-158, 206, 234, 237, 239, 248, 277-281, 288, 296, 299, 303, 304-306, 320, 407-409, 413 case scenarios, 332, 346-352, 355-358, 360-361 arthritis osteoarthritis, 17, 27, 34, 61, 77, 83, 90, 149, 285, 287, 289-290

rheumatoid, 71, 82, 86, 90, 99 systemic arthritides, 7, 35, 71, 82, 83, 89, 90 bone remodeling, 71, 82, 89 capsulitis. See TMJ, arthralgia clicking, 20, 22, 43, 84-86, 131-132, 156, 207, 215, 220, 345-349, 422 closed lock, 86-87, 132, 136-143, 346, 349-352 condyle-disc complex, 19-20, 22, 83-88, 131-148, 345-352, 393 (also on accompanying CD) reduced position, 20, 22, 85, 137-138, 207, 213, 421 condylysis, 62, 77, 83, 90 crepitus, 20, 43, 89, 156, 346, 419 degenerative joint disease, 20, 43, 83, 89-90, 419 derangement disorders. See TMJ, various entries for disc displacements diagnostic categories, 82–92 disc-condyle complex, 19, 22, 83-88, 131-148, 345-352, 393 (also on accompanying CD) reduced position, 20, 22, 85, 137-138, 207, 213, 421 disc-condyle complex disorders patient handout, 393 (also on accompanying CD) disc displacement with reduction, 19-20, 36, 43-44, 85-86, 213-214 case scenario, 345-346, 357-358 characteristics, 43-44, 85-86 clinical features, 19-20, 36, 43-44, 85-86 illustration, 19-20, 84-85, 393 (also on accompanying CD) treatment, 43-44, 149, 345-346 disc displacement with reduction with intermittent locking, 20-21, 36, 43-44, 85-87, 131-136, 156, 214, 220, 280, 301, 346, 347-349, 351-352 case scenarios, 346, 347-349, 351 characteristics, 43-44, 85-86, 131-136 clinical features, 20, 36, 43-44, 85-86, 131-136 illustration, 20, 85-86, 393 (also on accompanying CD) techniques for patient to unlock, 135 treatment, 131-136, 346, 347-349 disc displacement without reduction with limited opening (closed lock), 20, 36, 86-88, 346, 349-352

TMJ (continued) case scenarios, 346, 349-352 characteristics, 86-88, 131-134, 136-43 clinical features, 20, 36, 86-88, 131-134, 136-43 illustration, 20, 86-88, 393 (also on accompanying CD) intermittent occurrence. See TMJ, disc displacement with reduction with intermittent locking manipulation, 136-138, 349-350 stretching retrodiscal tissue, 139-142, 350-352 techniques for patient to unlock, 135-138 temporary appliance for, 139 treatment, 131-134, 136-43, 349-352 disc displacement without reduction without limited opening, 87-88 clinical features, 87-88 illustration, 20, 87-88, 393 (also on accompanying CD) dislocation. See TMJ, luxation; TMJ, subluxation distraction, 127, 135-138, 147, 238 fracture, 72, 76, 83, 87, 91, 106, 133, 370-371 hyperplasia, 83, 92 hypoplasia, 83, 91, 106 imaging. See Imaging implants within prosthesis, 11, 27, 68, 74, 77, 307-308, 321 Teflon-Proplast or Silastic, 11, 13, 27, 68, 77, 308, 321 inflammation. See TMJ, arthralgia intermittent closed lock. See TMJ, disc displacement with reduction with intermittent locking of disc displacement with reduction with intermittent locking, 20-21, 36, 43-44, 85-87, 131-136, 156, 214, 220, 280, 301, 346, 347-349, 351-352 of disc displacement without reduction with limited opening (closed lock), 20, 36, 86-88, 131-134, 136-43, 346, 349-352 loading anterior positioning appliances, 151, 155, 213-214 arthralgia, 140, 277, 304-305, 313, 358 centric relation, 157, 158

closed lock, 133-134 disc adherence, 83, 88, 143 disc adhesions, 88 disc displacement with reduction with intermittent locking, 133-134, 352 without reduction with limited opening, 133-134 muscle activity causing, 71-72, 82, 134, 234, 313, 358 Nociceptive Trigeminal Inhibition appliance (NTI), 153, 160 occlusal appliance, effect on, 82, 134, 147, 151, 155, 157, 160, 213, 214 osteoarthritis effect, 72 pain causing, 14 parafunctional habits causing, 71, 82, 133, 134, 155, 234, 313, 352, 358 pseudodisc formation, 81, 84 stabilization appliance, effect on, 82, 134, 147, 155, 158, 307 TMD symptom effect, 71–72, 91, 133–134, 140, 230, 234, 277, 307, 313, 352, 358 luxation, 20-22, 89, 106, 145-148, 315, 442 Monoject syringe for, 147 stabilization appliance for, 149, 315 neoplastic growth, 74, 77, 83, 90-91, 94, 143, 304, 307, 320 noise click, 20, 22, 43, 84-86, 131-132, 156, 207, 215, 220, 345-349, 422 crepitus, 20, 43, 89, 156, 346, 419 osseous changes, 71-72, 74, 75-77, 82, 88-92 osteoarthritis, 17, 27, 34, 61, 77, 83, 90, 149, 285, 287, 289-290 osteoarthrosis, 83, 90 osteochondritis dissecans, 83, 90 osteonecrosis, 83, 90 palpation, 45-47, 50-54, 111 prosthesis, 11, 27, 68, 74, 77, 307-308, 321 pseudodisc, 81, 84 radiographic changes, 71-72, 74, 75-77, 82, 88 - 92reduced position, 20, 22, 85, 137-138, 207, 213, 421 referred pain from, 54 remineralization, 71-72, 74, 75-77, 82, 88-92 replacement, 11, 27, 68, 74, 77, 306-308, 321

retrodiscal tissue pseudodisc, 81, 84 stretching exercise, 139-142, 350-352 synovial chondromatosis, 83, 91 stretching exercise for retrodiscal tissue, 139-142, 350-352 subluxation, 20-22, 89, 106, 145-148, 315, 442 stabilization appliance for, 149, 315 surgery, 304-308 alloplastic disc implants, 142-143, 280, 304-306, 320, 351-352 arthrocentesis, 142-143, 280, 304-306, 320, 351-352 arthroscopy, 304, 306-307, 351-352 case scenarios, 351-352 disc replacement implant, 11, 13, 27, 68, 77, 308, 321 joint replacement implants, 11, 27, 68, 74, 77, 306-308, 321 modified condylotomy, 306, 307 open joint surgery, 89, 305-307 prosthesis, 11, 27, 68, 74, 77, 307-308, 321 referral recommendations, 304-306 Teflon-Proplast or Silastic, 11, 13, 27, 68, 77, 308, 321 synovitis. See TMJ, arthralgia Tongue depressor stretch, 116 Tooth extraction, 64, 67, 76, 110, 116, 298, 300, 353-354 Topical medications, 284-289, 342 Transdermal patch, lidocaine, 288-289 Trapezius muscle palpation, 45-46, 48-50 referred pain from, 54 Trauma direct, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306, 419 indirect trauma, 105, 420

macrotrauma, 34, 76, 87, 88, 91, 93, 95, 98, 105-108, 114, 133, 306, 419 microtrauma, 105, 140, 420. See Habits, parafunctional TMD secondary to, 34, 76, 87, 88, 91, 93, 95, 98, 105–108, 114, 133, 306 imaging, 76, 91, 106 treatment, 107-108, 232, 277 Traumeel, 286 Treatments. See Therapies Tricyclic antidepressants, 103, 275, 276, 282-284, 319, 323, 324, 326, 338, 357 amitriptyline, 23, 36, 63, 114, 282-283, 322-323, 344, 357 daytime pain treated using, 283, 323, 358 desipramine, 283, 323, 358 nocturnal habits treated using, 282-283, 322-323 nortriptyline, 23, 36, 63, 114, 283, 322-323 Trigger points compression, 231, 248, 249, 314 injections, 40, 249-250, 316 Ultrasound, 75 Valium. See Diazepam Vertex, pain in, 52 Vioxx. See Rofecoxib Vitamin B-2 Voltaren Gel, 286-288, 342

Voltaren Emulgel, 287

Wax interocclusal record

360-362

Yoga, 224, 249, 268, 316

Zostrix. See Capsaicin

anterior positioning appliance, 215-216

stabilization appliance, 153-154, 155-158,

