Index

Abscess around cover screw, 147
Abutment
  inability to perfectly connect, to implant, 147
  SynCone, 194, 198–199, 203–204
Access brush, implant overdentures and, 211
Accretions, removal of, implant overdentures and, 213
Acid-etched surface, 154, 169
Acrylic denture base, clinical and laboratory procedures for VKS-OC rs attachment, 45, 49
embedded in, 45
Alignment, 37, 172
  of stud attachments, 37
  of trajectory of implant, Maximus OS, overdenture implant and, 168–171
Alignment drill aligning trajectory of implant and, 172, 175
Allogeneic bone, bone grafting and, 141
Allograft, bone grafting and, 140–141
Alloplast, bone grafting and, 140–141
Alveolar bone, access to, 33, 144, 171–172, 181–183
  ERA Overdenture Implant and, 171–172, 181–183
  Maximus OS overdenture implant and, 169
Alveolar ridge
  sagittal relationship of bar to, 66
  vertical relationship of bar to, 66
Ambassadors, successful implant practice and, 227
Anchors, retentive. See Retentive anchors
Anesthesia, 147
Angle correction gauge kit, ERA, 39–40
Ankylos implant system, 90
Anterior crestal incision with or without vestibular release, 133–134
Anterior interferences, elimination of, 124, 127–129
Anterior mandible, lingual swelling after implant placement in, 146
Anterior-posterior distance rule, bar attachments and, 68
Antimicrobials, 212
Apical portion, tapered, parallel body with, 170
Artwork, selection of, in waiting room, 229–230
Aspirin, effect of, on coagulation process, 132
Astra ball abutment, 57
Astra implant, 57–58
Attachment assemblies
  evaluation of components of, 213–214
  factors influencing diagnosis and resiliency level of, 33
  for Straumann implants, 155
Attachment design
classification of overdenture implants based on features of, 168–169
cleansable, failure to achieve, 210–211

Attachments
bar. See Bar attachments
Clix, 57–60
combination resilient, 32
ERA, 37
hinge resilient, 32, 81
resiliency of, 76
restricted vertical resilient, 32
rigid non-resilient, 25, 32, 107
rotary resilient, 32
stud. See Stud attachments
universal resilient, 32

Attachment selection
biomechanical considerations and, 33
biomechanics of maxillary overdenture and, 33
criteria for, 32–33
different attachment assemblies and, 33
distal extension to bar and, 33
factors influencing design and resiliency level of attachment assembly and, 33
load distribution of stud vs. bar attachments and, 33
principles of, 31–33
types of attachments based on resiliency and, 32

Autograft, bone grafting and, 140–141
Available bone quantity in diagnosis and treatment planning, 15

Balanced occlusion, set-up procedure for, utilizing Vita Physiodens teeth, 113

Balancing excursion, eccentric jaw movements and, 129

Balancing side, eccentric balance and, 127

Ball bearings (BBs), 12–13
Bar
distal extension to, 33
Dolder. See Dolder bar
flexibility of, 64
Hader. See Hader bar
parallel, 78–79
passive seat of, 82
sagittal relationship of to alveolar ridge, 66–67
to hinge axis, 67
vertical relationship of to alveolar ridge, 66
Bar arrangement, 64
Bar assembly, incorporation of, into denture, 82
Bar attachments, 33, 63–81
bar materials and, 63
based on cross-sectional shapes, 63
based on nature of their resiliency, 64
Dolder bar and, 72–75
fundamentals of bar arrangement and, 64
Hader bar and, 63, 69–73
load distribution of, 33
Vario Soft Bar Pattern VSP and, 76
Bar clips, 63
Bar joint, 32, 64, 72–73, 75–76
Bar materials, 63
Bar riders, 63, 69–73, 213
Bar unit, 64, 72, 75
BBs. See Ball bearings (BBs)
Betamethasone, 132
Bio-Gide, 143
BioMend, 142
BioMend Extend, 143
BIOS. See Breda Implant Overdenture Study (BIOS)
Blood pressure of surgical patient, 132–133
Bone
allogeneic, 141
alveolar. See Alveolar bone
cancellous, 17–18, 144
compact, 17–18
ERA Overdenture Implant and, 179–180
height of, 11–15
length of, 15
porous, 18
shape of, 15
thick, 17–18
thin, 17–18
width of, 15
xenogeneic, 141
Bone grafting, 15, 17, 104, 140–141, 144, 163
Bone quantity
available, in diagnosis and treatment planning, 11–19
classification of edentulous ridges based on, 17
Bone-spreading sequence, split-control system and, 144
Bone supported surgical guides, 26
Branding of implant practice, 226–227
Brand name, successful implant practice and, 227
Breallloy F 400, 80
Breda Implant Overdenture Study (BIOS), 5
Bredent PiKuPlast HP36, 79
Bredent “Thixo Rock,” 78
Bredent Vario Soft Bar Pattern, 76
Bredent VSP bar, 81
Brush
access, 211
denture, 212
interdental, 211
Buccal corridor, 117
Buccal cusp interferences, maxillary, elimination of, 124, 126
Buccal incision, mandibular surgery and, 136
Buccolingual position, mandibular teeth and, 124
Budget, patient’s, successful implant practice and, 226
Burs, careful handling of, disinfection and, 140
Calculus, instruments for, 213
Camlog, 198
Camtube, 198
Cancellous bone, classification of edentulous ridges based on, 17–18
Cap, healing, difficulty inserting, 147
Case acceptance, successful implant practice and, 225–226
Castable bar, plastic, advantages of, 77
Castable ERA attachment, mandibular implant-supported overdenture utilizing Hader bar and, 72
Castable Hader bar attachment with gold alloy clips/riders, fabrication procedures for, 70–71
Castable Hader bar attachment with plastic clips/riders, fabrication procedures for, 70–71
Cawley, Peter, 206
Center point vision, successful implant practice and, 216–217
Centric occlusion contacts, reestablishing, 128
Centric relation, 5, 11, 48, 52, 78, 81, 90, 93, 120, 129
Centric stops, mandibular, equilibration and, 128
Chair-side utilization procedures of Astra implant, 57
of Clix attachment, 57
ERA attachments and, 39
ERAOverdenture Implant and, 179
Maximus OS overdenture implant and, 169–170
prosthetic steps and, 167, 178, 187, 198
of retentive anchor abutment and elliptical matrix, 53–56
Chlorhexidine, 133, 147, 166, 201, 212
Chrome cobalt framework, clinical and laboratory procedures for VKS-OC rs, 49
attachment cast within, 49
Cleansable attachment design, failure to achieve, 210–211
Clips
bar, 104
gold alloy, 71–73
Hader, placement of, 82
metal. See Metal clips
metal, vs. plastic Hader, 63, 72
parallel-sided, for rectangular bar, 77
plastic, castable Hader bar attachment with, fabrication procedures for, 70–71
snap-on, 77–78
with no extension, 78
with parallel-sided extension, 77
VKS-OC rs stud attachment and, 44–45
Clix attachment, 57–60
design specifications of female component of, 57, 59, 170
Clix inserts, replacing, 57–58
Clopidogrel (Plavix), effect of, on coagulation process, 132
Cobalt framework, chrome, clinical and laboratory procedures for VKS-OC rs, 49
attachment cast within, 49
CO-Comfort GC, 166
Coe-Comfort, 139
Collar, polished, Straumann Implant System and, 153, 155, 157, 159
Combination resilient attachments, 32
Compact bone, classification of edentulous ridges based on, 17–18
Compstat, 218
Computed tomography (CT scan), 12, 14–15, 26–28, 147, 172, 182
Consultation room, successful implant practice and, 228, 230
Continuous sutures, 138–139
Conventional suture vs. implant overdenture, 3
Cords, flossing, implant overdentures and, 212
Core principles of successful implant practice.
See Implant practice, successful, core principles of
Coumadin. See Warfarin (Coumadin)
Cover screw, 134, 147, 165–167
abscess around, 147
exposed, 147
Crestal incision, 133–134, 136, 167, 194
anterior, with or without vestibular release, 133–134
extended, mandibular surgery and, 134
full arch extended, 134
mandibular surgery and, 134
maxillary surgery and, 136
with vestibular releasing incisions, 134
without releasing incisions, 134
Crock, Ray, 220
CT scan. See Computed tomography (CT scan)
Curve
of Spee, 125
of Wilson, 125
Curved occlusal plane, mandibular teeth and, 122
Cusps, maxillary lingual, equilibration and, 122–123
Delayed loading protocol with SynCone concept, 202
Dentists: An Endangered Species, 225
Denture
conventional, vs. implant overdenture, 3
incorporation of bar assembly into, 82
Denture base, acrylic, clinical and laboratory procedures for VKS-OC rs attachment, 45
embedded in, 45
Denture base extensions, bar attachments and, 68–69
Denture brushes, 212
Denture teeth, occlusal schemes formed by, 112–113
Dexamethasone, effect of, on patient’s ability to heal after surgery, 132
Diabetes, effect of surgery on patient with, 132
Diagnosis and treatment planning, 11–23
anatomical considerations during diagnosis and treatment planning process and, 15
benefits of diagnostic mounting and, 11
diagnostic workup for implant overdenture and, 11
joint treatment planning and, 15
radiographic evaluation and, 12
Diagnostic mounting, benefits of, 11–12
Diagnostic stent, surgical guide and. See Surgical guides and diagnostic stent
Diagnostic workup for implant overdentures, 11
DICOM-3-format, 27
Disinfection
of hands, 133
of instruments, 133
Distal extension to bar, attachment selection and, 33
Dolder, Eugen, 72
Dolder bar, 5, 32, 63, 72–73, 75–76
contraindications for, 73
dimensional specifications of, 73
fabrication procedure for, 75
indications for, 72–73
Dolder bar joint, 32, 75–76
fabrication procedure for, 75
Dolder bar joint attachment assembly, relining an overdenture with, 76
Dolder bar unit attachment assembly, relining overdenture with, 75
Draping of patient for surgery, 133
Drilling, hemorrhaging during, 146
Drilling sequence for standard implants, 156
Straumann Implant System and, 153–159
Drills
alignment, aligning trajectory of implant and, 137, 156, 163, 172–173
careful handling of, disinfection and, 140
Early loading, mandibular implant, 192
overdentures and, 192–203
Eccentric balance, implant-supported, 127
overdenture and, 127
Eccentric jaw movements, implant-supported,
overdenture and, 129
Edentulous ridges, classification of, based on
bone quantity, 15–17
Education, patient. See Patient education
Elliptical matrix, retentive anchors and,
53–56
Emotional pain, 146
in patient’s decision to have treatment,
222
successful implant practice and, 222
Emotional values, listening for, successful,
implant practice and, 221
Endopore dental implant system, 17,
161–167
advantages of, 162
implant uncovering steps for, 167
post surgical instructions for, 166–167
prosthetic steps for, 167
short, mechanical rationale for, 162–163
surgical steps for, 163
Endosseous diameters, Straumann Implant
System and, 154–155
End-tufted toothbrushes, implant overdentures
and, 211
Epinephrine, anesthesia and, 133
Epoxy, 92
ePTFE. See Polytetrafluoroethylene (ePTFE)
Equilibration
after processing, 128
completion of, by adjusting incline planes of
mandibular posterior teeth, 129
sequence of, after processing, 128
Equipment. See Instruments
ERA angle correction gauge kit, 39–40
ERA attachment, 37, 72
castable, mandibular implant-supported,
72
overdenture utilizing Hader bar and, 72
ERA implant, 187
ERA male component, changing, 43,
189
ERA Overdenture Implant, 179–180
changing male component of, 168
design specifications of, 168, 180
surgical steps and, 171–172
ERA plastic handle gauges, 39
Erosion, spark. See Spark erosion
Error, magnification, of panoramic x-rays,
determining, 11–14
Excessive retention of overdenture, SynCone
correction and, 202–203
Expectations, patient. See Patient preferences
and expectations
Exposed cover screw, 147
Exposed implant threads, 146
Extended crestal incision, full arch, 134
Extended crestal incision, mandibular surgery
and, 134–135
External marketing objectives, successful,
implant practice and, 227, 228
Fabrication procedures, 70–75
for castable Hader bar attachment, 70
with gold alloy clips/riders, 71
with plastic clips/riders, 72
for Dolder bar joint, 72
of hinge resilient overdenture using Bredent
VSP bar, 81
of rigid fully implant-borne overdenture,
using parallel bar, 78
Failure to achieve cleansable attachment design,
210–211
Female attachments
implants with, 170
interchangeable, 170
First lower premolar, setting up, for balanced
occlusion, 114, 116
First upper premolar, setting up, for balanced
occlusion, 113
Fishtailing, attachment selection and, 31–32
Fixed implant-supported prosthesis vs. implant
overdenture, 3–4
Flap designs
basic, 133
cisions and, 133
Flaps, mini, 134
Flap technique, gaining access to alveolar bone
and, 171–172, 181, 187
Flexibility of bar, bar attachments and, 64
Flossing cords, implant overdentures and,
212
Fluorescent lighting, effect of, on mood, 230
Follow up and maintenance of implant overdentures, 210–213
characteristics of ideal peri-implant tissues and, 210
consequences for failure to achieve cleansable, attachment design and, 210
home care implements and, 211
recommended routines at recall visits and, 213
“Forgetting” intercuspalation, 120–121
Framework-reinforced overdenture, SynCone abutments and, 202–203
Frontline management concept, 217–218
Full arch extended crestal incision, 134
Full implant-supported implant overdenture, 4–5, 68–69
Full-spectrum lighting, effect of, on mood, 230
Fully edentulous ridges, classification of, based on bone quantity, 15–16
Fully implant-supported overdentures, 4–5, 69, 85
Furniture, selection of, in waiting room, 229

George Schick Dental Company, 29
Gingival cuff heights of Astra ball abutment, 38, 57
Gingiva supported surgical guides, 26
Giuliani, Rudolph, 218
Gloves, sterile, 133
Glucose metabolism, diabetes and, 132
Gold alloy clips/riders, castable Hader bar attachment with, fabrication procedures for, 69–71
Gold screw, difficulty inserting, 147
GORE-TEX, 142
Grafting, bone, 140–141, 163
Granulation tissue around implant head, 147
Guide pins, aligning trajectory of implant and, 46, 49
Gysi, 123

Hader, Helmut, 69
Hader bar, 32, 63, 69–72
Castable, 70
with gold alloy clips/riders, fabrication, procedures for, 71, 72
with plastic clips/riders, fabrication, procedures for, 70, 72
mandibular implant-supported overdenture, utilizing, 72
metal clips and, 72
Hader bar attachment assembly troubleshooting for, 72–73
Hader clip placement, 71–72
Hader Vertical, 69
Hard accretions, removal of, implant overdentures and, 213
Healing cap, difficulty inserting, 147
Healing period before loading, mandibular implant overdentures and, 192
for Straumann implants with SLA surface, 160
Healing phase, initial, overdenture implants acting as transitional implants during, 169
Height of bone in diagnosis and treatment planning, 11–17
Hemoglobin A1C in assessment of glucose control, 132
Hemorrhaging during drilling, 146
Hinge axis, sagittal relationship of bar to, 67
Hinge movement, attachment selection and, 32–33
Hinge resilient attachments, 32
Hinge resilient overdenture, fabrication, procedures of, using Bredent VSP bar, 81
HIPAA, 228–231
Home care, VKS-OC rs stud attachment and, 44–45
Homecare implements, plaque-control, 211
Hygiene and recall operatory, successful implant practice and, 228, 231
Hypertension, effect of surgery on patient with, 132–133
Ibuprofen, 133
Immediate loading, mandibular implant overdentures and, 192
Immediately loaded implants, clinical conditions affecting outcome of, Osstell Mentor and, 208
Immediate stabilization for overdenture as purpose of overdenture implants, 169
Implant. See also Implant overdentures; Overdenture implants; Overdentures; alignment of trajectory of, Maximus OS overdenture implant and, 169–171.
Astra, 57
body of, rough surface on, Straumann Implant System and, 154, 160
Endopore. See Endopore dental implant System with female attachments, 168
fracture of, during insertion in osteotomy, 147
immediately loaded, clinical conditions affecting outcome of, Osstell Mentor and, 208
inability to perfectly connect abutment to, 147
with male attachments, 168
marking location of, ERA Overdenture Implant and, 180
mobile, 147
painful, 147
placement of
   ERA Overdenture Implant and, 179–180
   Maximus OS overdenture implant and, 169–170
   sensitive but immobile, 147
Straumann. See Straumann Implant System
successful integration of, with surrounding tissue, 140
supporting, loading of, effect of shape of mandible on, 107
transitional, during healing phase, overdenture implants acting as, 162, 169
Implant bed, preparation of, Straumann Implant System and, 155
Implant 3D software, 28
Implant head, granulation tissue around, 147
Implant insertion, Straumann Implant System and, 156–157
Implant mobility after placement, 146
Implant overdentures, 168–191. See also Implant Overdenture implants; Overdentures
bar attachments, 75
clinical applications for measurement of implant stability using Osstell Mentor, 206
comparison of treatment strategies for, 4
core principles of successful implant practice, 216–231
diagnosis and treatment planning, 11–19
Endopore Dental Implant System, 161–167
follow up and maintenance of. See Follow up and maintenance of implant overdentures
   fully implant-supported, 4–5, 69
   indications for, 4
   mainly tissue-supported, 4–5
mandibular, loading approaches for. See Mandibular implant overdentures, loading approaches for occlusion and implant-supported overdentures, 112–130
overdenture implants, 168–191
patient preferences and expectations, 3–5
principles of attachment selection, 31–33
spark erosion, 85–100
Straumann Implant System, 153–159
stud attachments, 37–59, 105, 211
surgical considerations for. See Surgical considerations for implant overdentures
surgical guide and diagnostic stent, 24–29
tissue-implant-supported, 4, 79
treatment success with overdentures, 104–107
Implant placement, osteotomy and, 137–138
Implant practice, 216–231
   branding of, 226–227
   criteria for, 228
   successful, core principles of, 216–231
   branding of implant practice and, 226–227
   design criteria for implant practice and, 228
   marketing and, 216–227
   restorative practice and, 224
   sales and, 220–221
   systems and, 217–218
   team and, 216–226
   vision and, 216–230
Implant site, tapping of, Straumann Implant System and, 156
Implant stability, tapping of, Straumann Implant System and, 156
Implant stability, clinical applications for measurement of, using Osstell Mentor, 193, 206–209
Implant Stability Quotient (ISQ), 207
Implant-supported overdentures
common mistakes in construction of, 6
mandibular, utilizing Hader bar and castable
ERA attachment, 72
occlusion and. See Occlusion and
implant-supported overdentures
Implant-supported prosthesis, fixed, vs. implant
overdenture, 3–4
Implant survival, 104
Implant threads, exposed, 146
Incisions
anterior crestal, with or without vestibular
release, 133–134
buccal, mandibular surgery and, 134
crestal. See Crestal incision
extended crestal, mandibular surgery and, 134
flap design and, 133–134
full arch extended crestal, 134
palatal, mandibular surgery and, 134
releasing, crestal incision without, 134
vestibular, 133–135
Incline planes of mandibular posterior teeth,
completing equilibration by adjustment
of, 129
Inhalation anesthesia, 133
INR. See International Normalized Ratio (INR)
Instructions, postoperative. See Patient
Education
Instruments, 133
for calculus, 213
disinfection of, 133
treatment room preparation and utilization
protocol and, 133
Insufficient retention, SynCone concept and, 73, 202
Insulin in assessment of glucose control, 132
Interchangeable female components, 170
Intercuspation, “forgiving,” 120–121
Interdental brushes, implant overdentures and,
211–212
International Normalized Ratio (INR), 132
I shape of VSP bar, 77
ISQ. See Implant Stability Quotient (ISQ)
Ivoclar, 28, 123, 126
Ivoclar ortholingual teeth, set-up procedure for,
123
lingualized occlusion utilizing, 123
Jaw movements, eccentric, implant-supported
overdenture and, 129
Joint treatment planning, 15
Language, successful implant practice and, 225
Leadership, 218, 220
Leadership, 218, 220
Length of bone in diagnosis and treatment
planning, 15
Lighting, effect of, on mood, 229–231
Lingual contact occlusion, 122–123
Lingual cusps, maxillary, equilibration and,
122–123, 125, 129
Lingualized occlusal scheme, 122–123
Lingualized occlusion, 81, 122, 123
history of, 123
utilizing Ivoclar ortholingual teeth, set-up
procedure for, 123
Lingualized teeth, 133–134
Lingual swelling after implant placement in
anterior mandible, 146
Lip, lower, postoperative sensory disturbance
of, 147
Load distribution of stud vs. bar attachments, 33
Loading
early, 192
healing period before, 192
immediate, 192
premature, 192
progressive, 192
of supporting implants, effect of shape of
mandible on, 107
Loading approaches for mandibular implant
overdentures. See Mandibular implant
overdentures, loading approaches for
Locking sutures, 139
Loose bone, classification of edentulous ridges
based on, 17
Loosely structured cancellous bone, 17–18
classification of edentulous ridges based on,
17
Lower first molar, 118
occlusal contacts of, 114–120
setting up, 116
Lower first premolars, occlusal contacts, 113
between upper first premolars and, 113–114
Lower implant overdentures, biomechanical
risk factors for, 105
 Lower lip, postoperative sensory disturbance of, 147
 Lower second molar, 117, 122
 occlusal contacts of, 114–120
 setting up, 116
 Lower second premolars, 116
 occlusal contacts of, 116
 setting up, 113
 Magnetic attachments, 32–33
 Magnification error of panoramic x-rays, determining, 11–14
 Male attachments, implants with, 168
 Mandible
 anterior, lingual swelling after implant placement in, 146
 shape of, effect of, on loading of supporting implants, 107–108
 Mandibular centric stops, equilibration and, 129–130
 Mandibular implant overdentures, loading approaches for, 192
 advantages of immediate loading in implant-supported overdenture cases and, 193
 determining loading strategies and, 192
 healing period before loading and, 192
 premature loading and, 192
 procedural sequences and, 203
 success of premature loaded implants and, 193
 SynCone abutments and
 framework-reinforced overdenture and, 203
 SynCone concept and, 194
 treatment-protocol requirements and, 193
 troubleshooting and, 202
 Mandibular implant-supported overdenture utilizing Hader bar and castable ERA attachment, 72
 Mandibular posterior teeth, incline planes of, completing equilibration by adjustment of, 129
 Mandibular surgery, 134
 Mandibular teeth, position of, 124
 Marketing, successful implant practice and, 216, 223
 Matrices
 elliptical, retentive anchors and, 53–54
 parallel-sided, for rectangular bar, 77–78
 snap-on, with no extension, 78
 snap-on, with parallel-sided extension, 77–78
 VKS-OC rs stud attachment and, 44
 Mattress, horizontal, 139
 Maxillary buccal cusp interferences, elimination of, 126
 Maxillary lingual cusps, equilibration and, 129
 Maxillary overdenture, biomechanics of, 33
 Maxillary surgery, 136–146
 Maxillary teeth, position of, 125
 Maximus OS implant, 170–171, 178
 Maxwell, John, 216, 220
 MDI Implant, 168
 med3D technology, components and advantages of, 27
 Meredith, Neil, 206
 Metal clips, 63, 71–72
 advantages of, 72
 disadvantages of, 72
 vs. plastic Hader, 72
 Microsaws, surgical, 143
 Mini dental implants, 168
 Mini flaps, 134
 Modified posterior setup, 123
 Molars, setting up, 116
 Mounting, diagnostic, benefits of, 11–12
 Mouth, patient’s, preparation of, for surgery, 144
 Mucocitis, peri-implant, 210
 Mucosa, compression of, by bar, 66
 Music, relaxation and, 229–230
 Neomem, 143
 Nimetic-Cem, 203
 No-flap technique, gaining access to alveolar bone and, 172, 182
 Non-anatomic teeth, 120, 121
 Noncurved occlusal plane, mandibular teeth and, 124–125
 Non-locking sutures, 138
 Non-resorbable membranes, bone grafting and, 140, 142
 Non-resorbable materials for suturing techniques, 142–143
 Occlusal adjustment, 43, 57, 78, 113, 120, 123, 128
Occlusal contacts
- of lower first molar, 114
- of lower second molar, 114
- of lower second premolar, 115
- between upper and lower first premolars, 114
- of upper first molar, 117
- of upper second molar, 119
- of upper second premolars, 114

Occlusal plane, height of, mandibular teeth and, 124–125

Occlusal radiographs, 147

Occlusal scheme
- formed by denture teeth, 112
- lingualized, 122

Occlusion
- balanced, set-up procedure for, utilizing Vita Physiodens teeth, 113
- central, reestablishing, 128
- and implant-supported overdentures, 112
- eccentric jaw movements and, 129
- equilibration after processing and, 128
- history of lingual contact and, 123
- history of lingualized occlusion and, 120
- occlusal adjustment and, 120
- occlusal schemes formed by denture teeth and, 112
- set-up procedure for balanced occlusion using Vita Physiodens teeth and, 113
- set-up procedure for lingualized occlusion utilizing Ivoclar ortholingual teeth and, 123
- lingual contact, 123
- lingualized. See Lingualized occlusion

Oststell Mentor, clinical applications for measurement of implant stability using, 206–208
- clinical conditions affecting outcome of immediately loaded implants and, 208
- clinical stages when ISQ measurement can be recorded and, 208

Osteoporosis, edentulous ridges and, 15–17

Osteotomy
- fraction of implant during insertion in, 147
- and implant placement, 137
- preparation of, ERA Overdenture Implant and, 179–180
- widening of, Maximus OS overdenture implant and, 169

Overdenture implants, 168–191 See also Implant; Implant overdentures

Overdenture implants, 168–191. See also Implant; Implant overdentures

Overdentures
- basic purposes for, 169
- classification of, based on attachment design features, 168
- ERA, 179
- Maximus OS, 169

Overdentures, 168–191. See also Implant; Implant overdentures
- excessive retention of, SynCone concept and, 202
- framework-reinforced, SynCone abutments and, 203
- hinge resilient, fabrication procedures of, using Bredent VSP bar, 81
- immediate stabilization for, as purpose of overdenture implants, 169
- implant. See Implant; Implant overdentures; Overdenture implants
- implant-supported, occlusion and. See Occlusion and implant-supported Overdentures

Operatory
- prosthetic, 230
- recall, 231
- surgical, 230

Organizational model/systems, successful implant practice and, 217

Ortholingual teeth, 123
- Ivoclar, set-up procedure for lingualized occlusion utilizing, 123

OSHA, 230–231
treatment success with overdentures and, 104–107

Peri-implantitis, 210–211

Peri-implant mucocitis, 210–211

Peri-implant tissues, ideal, characteristics of, 210

Personnel. See Team

Plaque-control implements, home-care, 211, 214

Plastic castable bar, advantages of, 77

Plastic clips/riders, castable Hader bar attachment with, fabrication procedures for, 70

Plastic Hader vs. metal clips, 72

Plastic handle gauges, ERA, 39–40, 165

Plavix. See Clopidogrel (Plavix)

Polished collar, Straumann Implant System and, 153

Polytetrafluoroethylene (ePTFE), bone grafting and, 139, 142

Porcelain, spark erosion and, 88

Porous bone, classification of edentulous ridges based on, 17–18

Positioning device X1, 29

Posterior teeth, mandibular, incline planes of, completing equilibration by adjustment of, 129

Post-healing criteria for successful integration of implant with surrounding tissue, 140

Postoperative care, 201

implant overdentures and, 201

Postoperative instructions. See Patient education

Postoperative pain, 146

Pound's Triangular, 124

Prednisone, effect of, on patient's ability to heal after surgery, 132

Prefabricated titanium bar, advantages of, 77

Preferences, patient. See Patient preferences and Expectations

Premature loading, mandibular implant overdentures and, 192

Premolars, setting up, for balanced occlusion, 113

Presurgical instructions. See Patient education

Presurgical steps, SynCone concept and, 194

Procedural sequences, SynCone concept and, 203

Processing, equilibration after, 128
Progressive loading, mandibular implant, overdentures and, 192
Prosthesis
  cleaning of, 213
  fixed implant-supported, vs. implant overdenture, 4
Prosthetic operatory, successful implant practice and, 230
Prosthetic steps, 167, 178, 187, 198
  ERA Overdenture Implant and, 179
  Maximus OS overdenture implant and, 169
  SynCone concept and, 194–203
Prosthetic success, 104
Protrusion, eccentric balance and, 128
Protrusive contacts, eccentric jaw movements and, 128
Proxy Tip, implant overdentures and, 212
Questions, open-ended, successful implant practice and, 242
Radiographic examination, 213
  implant overdentures and, 213
  occlusal, 13
  panoramic, 12
RBT. See Resorbable blast texturing (RBT)
Recall visits, recommended routines at, implant overdentures and, 213
Reception area, successful implant practice and, 229
Recommended routines at recall visits, implant overdentures and, 213
Rectangular bar, parallel-sided matrices/clips for, 77–78
Rectangular shape of VSP bar, 77
Releasing incisions, 134
  crestal incision without, 134
  vestibular, crestal incision with, 134
Relining an overdenture, 140
  with Dolder bar joint attachment assembly, 75
  with Dolder bar unit attachment assembly, 75
Research, marketing, successful implant practice and, 227
Resiliency
  of attachments, 31–33
  classification of bar attachments based on, 32
Resilient attachments
  combination, 32
  hinge, 32
  restricted vertical, 32
  rotary, 32
  universal, 32
Resilient Dolder bar, 72
Resorbable blast texturing (RBT), 169–170
Resorbable materials, 139
  bone grafting and, 140
  for suturing techniques, 138
Resorbable membranes, bone grafting and, 139
Restorative practice, successful implant practice and, 224
Restricted vertical resilient attachments, 32
Retention
  excessive, of overdenture, SynCone concept and, 202
  insufficient, SynCone concept and, 73, 202
Retentive anchors, 52–56
  adjusting retention of female component of, 54–55
  chair-side utilization of, 55–56
  contraindications for, 58–59, 60, 61
  design specifications of, 53
  elliptical matrix of, 53
  Straumann, 52
RH-BMP2, bone grafting and, 140–141
Riders
  bar, 63
    gold alloy, castable Hader bar attachment with, fabrication procedures for, 71–72
    plastic, castable Hader bar attachment with, fabrication procedures for, 70
  rigid Dolder bar, 72–73
  rigid non-resilient attachments, 32
Robot, stationary, 29
Rotary resilient attachments, 32
Rotation movement, attachment selection and, 32, 33
Rough surface on implant body, Straumann, Implant System and, 153
Rübeling, Günter, 102
SAE Secotec Spark Erosion technique, 88
Sagittal relationship
  of bar to alveolar ridge, 66–67
  of bar to hinge axis, 67
Sales, successful implant practice and, 216, 220
Screw
  cover, abscess around, 147
cover, exposed, 147
gold, difficulty inserting, 147
transfer, difficulty inserting, 159
Secotec-System impression copings, 97
Semi-anatomic teeth, 120–121
Sendex, Victor, 168
Sensory disturbance, postoperative, of lower lip, 147
Shape of bone in diagnosis and treatment planning, 15
Sheffield test, 85
spark erosion and, 85–86
Site preparation for overdentures, 140
SLA surface, 160
Straumann implants with, healing period for, 160
Smart Peg, 207, 209
Snap-on matrices/clips
with no extension, 77–78
with parallel-sided extension, 77–78
Soft accretions, removal of, implant overdentures and, 213
Software, implant 3D planning, 27–29
Spark erosion, 85–101
common reasons for ill fit and, 88
process of, 88
Sheffield test and, 85
Spee, curve of, 125
Spinning, attachment selection and, 31–32
Split-control system, 144
Spreadsers, split-control system, 144
Square tread pattern, Maximum OS implant and, 170
Stability, implant, clinical applications for measurement of, using Osstell Mentor, 206-208
Stabilization, immediate, for overdenture, as purpose of overdenture implants, 169
Staff lounge, successful implant practice and, 231
Standard Plus implants, 153
Stationary robot, 29
Stent, diagnostic, surgical guide and. See Surgical guides and diagnostic stent
Sterilization area, successful implant practice and, 26
Steroids, effect of, on patient’s ability to heal after surgery, 132
Straumann Implant System, 153–159
endosseous diameters and, 154
healing period for Straumann implants with SLA surface and, 160
recommended attachment assemblies for, 155
regular neck implants and, 155
surgical steps for standard implants, 155
wound closure and, 159
Straumann Retentive Anchor and Abutment, 52–53
Straumann Standard implants, 153
Stud attachments, 37
alignment of, 37
Astra Implant and, 57
Clix attachment assembly and, 57
ERA attachment and, 37
height of, 37
load distribution of, 33
relationship of, with each other, 37
relationship of, with path of insertion, 37
Straumann Retentive Anchor Abutment and, 52–53, 55
VKS-OC rs Stud Attachment and, 44
Success, treatment, with overdentures. See Treatment success with overdentures
Successful implant practice. See Implant practice, successful, core principles of
Successful implant-supported overdentures, 6
Surgical considerations for implant overdentures, 132–147
incisions and flap design and, 133
mandibular surgery and, 134
maxillary surgery and, 136
osteotomy and implant placement and, 137
post-surgical care and, 139
presurgical instructions and, 132
procedural considerations during, 137
procedural considerations during surgery and, 137
site preparation for overdentures and, 140
split-control system and, 144
surgical-related problems and, 146
suturing techniques used for implant overdenture surgeries and, 139
Surgical guides
classification of, 26
and diagnostic stent, 26–27
components and advantages of med3D technology and, 27
Surgical hand disinfection, 133
Surgical microsaws, 143–144
Surgical operatory, successful implant practice and, 230
Surgical related problems, 146
Surgical steps, 163, 171, 180, 194
  ERA Overdenture Implant and, 179
  Maximus OS overdenture implant and, 169
  for standard implants, Straumann Implant System and, 155
  SynCone concept and, 194–203
Suture material, 139, 160
Suturing techniques, 149–150
  continuous, 138
  horizontal mattress, 150
  locking, 139
  most commonly used, 139
  non-locking, 138
  non-resorbable material for, 139
  resorbable material for, 139
SynCone abutment, 203
  and framework-reinforced overdenture, 203
SynCone cap, 199–201
SynCone concept, 194–203
Systems, successful implant practice and, 216
Tapered apical portion, parallel body with, 170, 179
Tapered Effect implants, 153
Tapping of implant site, Straumann Implant System and, 156
Team
  members of, addition of, team decision on, 240
  successful implant practice and, 237–245
Teeth
denture, occlusal schemes formed by, 112
Ivoclar ortholingual, set-up procedure for
  lingualized occlusion utilizing, 123
lingualized, 122
mandibular, position of, 124
  mandibular posterior, incline planes of,
    completing equilibration by adjustment of, 129
  maxillary, position of, 125–126
  non-anatomic, 120
  semi-anatomic, 120
Vita Physiodens, set-up procedure for
  balanced occlusion utilizing, 113
  Telescopic crown techniques, advantages of, 194
  Telescopic riggings, 33
The 21 Indispensable Qualities of a Leader, 216–217
Thick bone, classification of edentulous ridges based on, 17–18
Thin bone, classification of edentulous ridges based on, 18
Thornton bridge and implant cleaner, implant overdentures and, 212
Threads, exposed, 146
3D planning software, implant, 27
Ti6Al4V alloy, Endopore Dental Implant System and, 161
Tissue
  granulation, around implant head, 147
  peri-implant, ideal, characteristics of, 210
  surrounding, successful integration of implant with, 140
Tissue-implant-supported implant overdenture, 4, 69
Tissue punch technique, maxillary surgery and, 136
Tissue-supported implant overdenture, 4, 69
Titanium bar, prefabricated, advantages of, 77
Titanium plasma spray (TPS), 153
Toothbrushes, implant overdentures and, 211
TPS. See Titanium plasma spray (TPS)
Trabecular core, bone with, classification of edentulous ridges based on, 17–18
Trajectory of implant, alignment of, Maximus OS overdenture implant and, 169
Transfer screw, difficulty inserting, 147
Transitional implants during healing phase, overdenture implants acting as, 169
Translation, attachment selection and, 31
Treatment
  comparisons of, for implant overdentures, 104–107
  planning of, diagnosis and. See Diagnosis and treatment planning, 11
Treatment room preparation and utilization protocol, 133
Treatment success with overdentures, 104–107
  biomechanical risk factors for lower implant overdentures and, 105
  biomechanical risk factors for upper implant overdentures and, 105
implant survival and, 104
prosthetic success and, 104
shape of mandible and its effect on loading of supporting implants and, 107
Trial close, successful implant practice and, 221–222
Tri-calcium phosphate, resorbable blast texturing and, 170
21 Indispensable Qualities of a Leader, 216–217

Universal resilient attachments, 32
Upper first molar
occlusal contacts of, 119
setting up, 119
Upper first premolars, occlusal contacts between lower first premolars and, 114
Upper implant overdentures, biomechanical risk factors for, 105
Upper second molar
occlusal contacts of
setting up, 114
Upper second premolars occlusal contacts of, 115
setting up, 115
Utilization procedures, chair-side. See Chair-side utilization procedures

Vario Ball-Snap-OC, 44
Vario Soft Bar Pattern VSP, 76–77
clips of, shapes of, 76
shapes of, 76
Verification of passive seat of bar, 82
Vertical movement, attachment selection and, 31
Vertical relationship of bar to alveolar ridge, bar attachments and, 66
Vertical resilient attachments, restricted, 32
Vestibular incision, 135
Vestibular incisions, mandibular surgery and, 134
Vestibular release, anterior crestal incision with or without, 133–134
Vestibular releasing incisions, crestal incision with, 133–134
Video, lessening of anxiety and, 223, 229–230
Vision, successful implant practice and, 216
Vita Physiodens teeth, set-up procedure for balanced occlusion utilizing, 113–114
VKS-OC rs stud attachment, 44

Waiting room, successful implant practice and, 229
Warfarin (Coumadin), effect of, on coagulation process, 132
Website, successful implant practice and, 227

Width of bone in diagnosis and treatment planning, 15
Wieland Dental-Technik Germany, 92
Wilson, curve of, 125
Working excursion, eccentric jaw movements and, 127
Working side, eccentric balance and, 127
Workup, diagnostic, for implant overdentures, 11

X1, positioning device, 29
Xanax, 133
Xenogeneic bone, bone grafting and, 141
X-rays, panoramic, magnification error of, determining, 11–12