Index

Page numbers in *italics* refer to figures.
Page numbers in **bold** refer to tables.
The suffix “r” indicates that page or page range has literature references only.

**a**
- absolute differences 53
- abstracts 37
  - CONSORT 58–59
  - dissertations 27
- acceleration of tooth movement, *see also* duration of treatment
  - systematic reviews 209–210r
- acetaminophen (paracetamol) **169**, 171
- acid etching 94–95
- Activator appliance **234r**
- additive scales 53
- adhesives 210–211r
  - fixed appliances 98–99
  - leaching 217r, 259r
  - molar tubes 96–97
- adolescence, Class II malocclusion 120–121
- agenesis of teeth 211–212r
  - cleft lip and palate 128–129, 224r
  - lateral incisors 211r, 238r, 239r
- airway, *see* upper airway
- alcohol, maternal intake, facial shape 73
- aligners, *see also* clear aligners
  - Invisalign 239r
- allocation concealment, in RCTs 39, 51
  - AllTrials initiative 62
- alternating rapid maxillary expansion and constriction
  - Class III malocclusion 222r
  - posterior crossbites 226r
- alveolar bone loss 174–175
- alveolar cleft, bone grafting 132–133
- American Dental Association
  - practice parameters 6
  - website 7–8
- American Journal of Orthodontics and Dentofacial Orthopedics (AJO-DO) 59
- AMSTAR (guidelines) 59
- analgesics 168–169, 170–171, 247r
- analogy 13
- anchorage 212–215r, 233r, *see also* temporary anchorage devices
- AND (Boolean operator) 29, 30
- Angle classification 180–181
- anomalies, *see also* craniofacial morphology; facial shape
  - cleft lip and palate 128–129, 224r
- anterior crossbites, *see also* Class III malocclusion
  - treatment decisions 6
- anterior open bite 164–165, 243–244r
  - functional appliances 236r
  - stability of treatment 166–167, 244r, 254–255r
  - temporary anchorage devices 167, 214r
- antimicrobial agents 215r
- apical root resorption, *see also* orthodontically induced external apical root resorption
  - orthodontic tooth movement 188–189
- Apnea-Hypopnea Index, obstructive sleep
  - apnea 160–161
- arch dimension, cleft lip and palate 224r
- arch wires 106–107
associate editors, AJO-DO 60
associations, causality and 12–13
asthma, on facial shape 73
asymmetry
  facial, IQ vs. 73
  mandible, heritability 70
atopy, on facial shape 73
attrition bias 52
autotransplantation 216r
  mandibular canines 113
awareness of research 61

bacteria (microbiota), fixed appliances 217r, 218r, 244r
banding
  adhesives for 210–211r
  molars 96–97
baseline data 52
Begg retainers 177
belief, knowledge vs. 12
bias 50, 248r
  attrition bias 52
  avoidance 5–6, 39
  case-control studies 17–18
  detection bias 52
  performance bias 52
  publication bias 55, 61–62
  randomized controlled trials preventing 19
in systematic reviews 55
bimaxillary protrusion
  airway 212r
  extraction 232r
biological gradients 13
biology, tooth movement 216r
Bionator appliance 234r
bisphenol-A, leaching 217r, 259r
bisphosphonates 216r, 240r, 258r
blinding 39, 51–52
blogs 61
blood pressure, obstructive sleep apnea 162–163, 242r
bonding, see also adhesives; curing lights; self-etch primers
  agents 210–211r
  molar tubes 96–97
bone grafting, cleft lip and palate 132–133
bone loss 174–175
Bonferroni correction method, multiple comparison tests 77
Boolean operators 29–30
botulinum toxin 216–217r, 237r
Bouckoms, A.A., Cochrane Oral Health Group 5
brackets 217–218r
  adhesives for 211r
  periodontal health 249r
  polycarbonate, leaching 217r, 259r
  self-ligating 111
brain volume, heritability 71
broad-sense heritability 70
bruxism 218r
buccal corridor, on smile attractiveness 190–191, 253r
burns, facial shape 73
cancer, case-control studies 17
canines
  impacted 112–113, 249r
  laceback ligatures 102–103
  mandible, impaction and transmigration 112–113
caries 219r, 258–259r
  crowding 228r
  fluorides on 202–203
  interproximal enamel reduction 154–155
case-control studies 17–18
casein phosphopeptide-amorphous calcium phosphate 258r
causality 12–13
cohort studies 18
CENTRAL (Cochrane Central Register of Controlled Clinical Trials) 26
Centre for Evidence-based Medicine (UK) 55
centroids, principal component analysis 77, 78
cephalometry 229r
  obstructive sleep apnea 158–159
childhood illnesses, on facial shape 73
chin cup 235r
  temporomandibular joint disorders 236r, 256r
chlorhexidine 215r
Clarkson, Jan (Professor) 5
Class II malocclusion 219–222r
  age for treatment 120–121
  anchorage 212–213r
  Division 2, 144–145
  elastics 220r, 231r
extractions and 220r, 232r
fixed appliances 146–147, 148–149
functional appliances 220–221r, 233–234r
loss of patients 52–53
headgear 114–115, 221r, 233r, 234r
Herbst appliances 152–153, 220r, 233r, 234r
incisal trauma 116–117
loss of patients 52–53
molar distalization 118–119
orthodontically induced external apical root resorption 182–183, 252r
stability of treatment 221r, 254r
Class III malocclusion 124–125, 222–223r
anchorage 213r
functional appliances 222–223r, 235r
protraction face masks 122–123
stability of treatment 223r, 254r
Class III skeletal patterns, anterior crossbites 6
clear aligners 223–224r
periodontal health 249r
clear vacuum-formed thermoplastic retainers 178–179, 251r
cleft lip and palate 224–225r
anomalies 128–129, 224r
bone grafting 132–133
distraction osteogenesis 230r
genetics 224r, 236r
presurgical infant orthopedic treatment 126–127, 130–131
clinical experience 1, 3, 5, 7, 8
hypotheses 12
clinical practice guidelines 22–23
clinical significance 40
clinical study reports 27
clinical trials, see randomized controlled trials
clinician-centred outcomes 61
clinimetrics 4
clustering effects 53
etiological 69
coaxial superelastic nickel titanium initial arch wires 107
Cochrane, Archie 1–4
Cochrane Central Register of Controlled Clinical Trials 26
Cochrane Collaboration 3, 5–6, 20
Cochrane Database of Systematic Reviews 26
Cochrane Library 26
Cochrane Oral Health Group 5–6
trials register 26–27
Cochrane Review Groups, database 26
Cochrane reviews 7, 41, 248r
fluorides on white lesions 202–203
retention procedures 176–177
Cochrane Risk of Bias Tool 55
coherence 13
cohort studies 18
compliance 225r
computed tomography, see cone beam computed tomography
counter-assisted learning 231r
concealment, in RCTs 39, 51
conclusions, RCT papers 41
cone beam computed tomography 228–229r
obstructive sleep apnea 241r
conference proceedings, access 27
confidence interval (CI) 54
forest plots 43, 46
95% confidence interval 40, 43, 56
samples 40
conflicts of interest 55
consistency, associations 13
Consolidated Standards of Reporting Trials (CONSORT) 41, 58–60
continuous positive air pressure 162–163, 242r
control groups 14–15, 18–19, 51
case-control studies 18
RCT papers 38
controlled vocabulary 28–29
copper NiTi initial arch wires 107
core outcomes 55, 60–61
core outcome sets (COS) 61
coronectomy, third molars 196–197, 225r, 257r
corticosteroids, perinatal 3
corticotomy 200–201
acceleration of tooth movement 209r
costs, randomized controlled trials 19
countries, facial shape 77, 78
craniofacial morphology
   genetics 70–71
   obstructive sleep apnea 158–159, 241r
crevicular fluid (gingival), biomarkers 216r, 252r
Croatia, facial shape 78
crossbites, see anterior crossbites; posterior crossbites cross-sectional studies 16–17
crowded teeth (term), search on 29
crowding 227–228r
   extractions 232r
   third molars 194–195, 227–228r
crown abnormalities, cleft lip and palate 129
curing lights
GRADE profile 64
meta-analyses 56–58, 92–93
systematic reviews 92–93, 211r
cytokines 252r
databases 25–36
choosing 25–28
content 28
of guidelines 22
search strategies 28–35
data, RCT papers 39–41
decalcification 96–97
adhesives and 98–99
deciduous teeth, premature loss 250r
deep bite correction 142–143, 228r
stability of treatment 254r
delays, changes in treatments 3
demineralization, see decalcification
demineralized white lesions 258–259r
fluorides on 202–203
dental distraction 200–201
Dental Practice Parameters for Oral Health 6
dentopantomographs, mandibular canines 113
detection bias 52
determinism, probabilism vs. 12–13
diabetes, heritability 71
diagnostic records 228–230r
diamond-shaped symbols, forest plots 43
digital models, tomographic 229r
discussions, in RCT papers 41
dissemination research 22
dissertations, abstracts 27
distalization of molars 241r
meta-analysis 40–41
second and third molar eruption stage 118–119
distraction, dental 200–201
distraction osteogenesis 224r, 230r
dose–response relationships 13
dry socket, third molar extraction 196–197
duration of studies 15
cross-sectional studies 17
duration of treatment 258r, see also acceleration of
tooth movement
fixed appliances 198–199
Dynalok cut groove bases 99
early treatment
Class II malocclusion 219–220r
posterior crossbites 226r
EBSCO databases, proximity operators 31
editors, AJO-DO 60
education, dental 6, 231r
effectiveness 19–20
Effectiveness and Efficiency (Cochrane) 1
effect sizes 53
forest plots 43–44, 46
efficacy 19
elastics, Class II malocclusion 220r, 231r
electric toothbrushes 244r, 250r
electronic searching 25–36
Embace (Elsevier) 26
enamel roughness, interproximal enamel
reduction 154–155
endodontically treated teeth 231r
root resorption 182–183, 184–185, 231r, 252r
radiography 186–187
England, facial shape 78
environmental factors, facial development
70, 72–73
epidemiology 231r
epistemology 12
Epworth Sleepiness Scale, obstructive sleep
apnea 160–161
equations, for heritability 70
equipoise 18–19
ethics, randomized controlled trials 18–19
ethnicity, see also facial shape
peg-laterals 157
EThOS, dissertation abstracts 27
European Medicines Agency, clinical study
reports 27
evidence, hierarchy of 46, 49
expansion, see non-surgical expansion
experimental studies 14, 16, 18–20, see also
quasiexperiments
expert panels 248r
clinical practice guidelines 22
exploding terms, MeSH 28–29, 32
external apical root resorption, see orthodontically
induced external apical root resorption
external validity 19
cross-sectional studies 17
randomized controlled trials 54–55
extractions
  Class II malocclusion 220r, 232r
  third molars 196–197, 232r, 257r
  vs. coronectomy 196–197, 225r, 257r
  upper airways and 232r, 242r
extrusion 232r

f
face mask 235r, see also protraction face mask
  Class III malocclusion 124–125
facial shape 69–82, 253r
  analysis 71, 73, 74
  obstructive sleep apnea 158–159
failure of studies (negative findings) 15, 45–47
falsifiability 14
fascism, Cochrane’s opposition to 2
fat levels, growth and 75
Feinstein, Alvan (Professor) 4
field tags 32
filters (search filters) 33–34
Finland, facial shape 76, 78
first molars, extractions 232r
fixed appliances 233r, 234r
  adhesives 98–99
  bonded molar tubes 96–97
  Class II malocclusion 146–147, 148–149
  duration of treatment 198–199
  initial arch wires 106–107
  microbiota 217r, 218r, 244r
  quad-helix 137
fixed effects meta-analyses 58, 69
dental anomalies 129
flow diagrams, RCT papers 39
fluorides 202–203, 258r, 259r
Food and Drug Administration 19
clinical study reports 27
force levels 233r
forest plots 3, 42–44, 45, 46, 56–58
Frankel appliance 234r
free service providers, electronic searching 27
free-text searching 29
frenum 233r
functional appliances 233–236r
  Class II malocclusion 220–221r, 233–234r
  loss of patients 52–53
  Class III malocclusion 222–223r, 235r
  on maxillary growth 150–151
  obstructive sleep apnea 235–236r, 242r
funding
  conflicts of interest 55
  wasted money 58

g
GAC Microloc bases 99
generalizability 38, 54–55
genetics 236–237r
  cleft lip and palate 224r, 236r
  craniofacial 70–71
Genome Wide Association Studies 70
growth prediction 229r, 237r
growth velocity, annual 74–76
guidelines
  for clinical practice 22–23
  for evaluation of causality 13
  for reporting 49, 59, 60
  CONSORT 41, 58–60
gray literature 27
green access, Cochrane Library 26
growth velocity, annual 74–76
guidelines
  for clinical practice 22–23
  for evaluation of causality 13
  for reporting 49, 59, 60
  CONSORT 41, 58–60

h
Habsburg dynasty 70
halogen lights 92–93
Hawley retainers 177, 251r
headgear
  Class II malocclusion 114–115, 221r, 233r, 234r
  incisal trauma prevention 117
height, growth velocity 75
Herbst appliances
  Class II malocclusion 152–153, 220r, 233r, 234r
derivatives 146–147
heritability, facial shape 70–71
hierarchical data, outcome studies 69
hierarchy of evidence 46, 49
Hill, Sir Austin Bradford 13
Index

historical aspects 1–5
h2 values 70, 71
hyalinization 258
hypersensitivity, nickel 241
hypertension, obstructive sleep apnea 162–163, 242
hyphens, in search terms 32
hypodontia, peg-laterals and 157
hypotheses 12–14
multiple comparison tests 77–78
in RCT papers 38

i
ibuprofen 169, 171
ideal conditions, efficacy under 19
imaging 228–230, see also cephalometry; cone beam computed tomography; radiography
cLEFT lip and palate 224
impaetion, canines 112–113, 249
implants 238
loading 214
mini-implants 104–105
miniscrew implants 213
implementation science 23
incisors, see also lateral incisors
extractions 232
laceback ligatures 102–103
orthodontically induced external apical root resorption 182–183
peg-laterals 156–157, 240
self-ligating brackets 111
trauma 116–117, 228
infections
on facial shape 73
postoperative, third molar extraction 196–197
initial arch wires 106–107
Institute of Medicine, report on dental education 6
intelligence quotient, facial asymmetry vs. 73
intention to treat 52, 53
intercanine width, mandible 180–181
interdisciplinary orthodontics 238
interest, conflicts of 55
interleukin-1β polymorphisms 252
internal validity 19, 51
interocular distance, heritability 71
interproximal reduction 154–155, 238–239
InterTASC group, search filters 33
intra-arch width 239
intraoral appliances, temporomandibular joint disorders 192–193, 236
intraoral scanners 229
introductions, RCT papers 38
intrusion 239
Invisalign aligners 239
ISRCTN Registry 27

j
Jaw Abnormalities (MeSH term) 29
John Wiley and Sons, Cochrane Library 26
juvenile idiopathic arthritis 239, 255

k
know–do gap 21
knowledge 12

l
labiale inferius, growth velocity 76
labiale superius, growth velocity 76
laceback ligatures 102–103, 239
landmarks, facial shape analysis 71, 74–76
laser therapy, low-level 209–210, 247, 251
latency, case-control studies 17
lateral incisors
agensis 211, 238, 239
peg-laterals 156–157, 240
Latin American and Caribbean Health Sciences Literature Resource 26
light emitting diodes 92–93
LILACS (Latin American and Caribbean Health Sciences Literature Resource) 26
Lind, James, Treatise of the Scurvy 1
line of no effect 43, 56
lingual treatment, brackets 217
lip bumpers 254
lips, heritability of shape 71
loading of implants 214
local anesthesia 169
low intensity pulsed ultrasound 230
low-level laser therapy 209–210, 247, 251

m
malnutrition, facial shape 73
malocclusion, see also Class II malocclusion; Class III malocclusion
defining 14
mandible
advancement
obstructive sleep apnea 162–163, 242, 243, 245
on temporomandibular joint 246, 256–257
asymmetry, heritability 70
canines, impaction and transmigration 112–113
expansion 134–135
intercanine width 180–181
maxilla vs., temporary anchorage devices 101
protruding appliances 150–151
third molars 194–195
masking (blinding) 39, 51–52
maternal alcohol intake, on facial shape 73
maxilla expansion
non-surgical 134–135, 140–141, see also rapid maxillary expansion; slow maxillary expansion surgical 138–139, 227r
growth, functional appliances 150–151
mandible vs., temporary anchorage devices 101
maxillomandibular advancement, obstructive sleep apnea 235r, 236r, 242r, 243r, 245r
measurement 14
of outcomes 69
Medical Subject Headings 28–29, 31–32
MEDLINE 25–26
access platforms 28
Medical Subject Headings 28–29, 31–32
search filter for RCTs 33
wild card searches 30
MeSH (Medical Subject Headings) 28–29, 31–32
mesh foil bases 99
meta-analyses 5, 20–21, 42–44, 56, 62, 248r, see also fixed effects meta-analyses; network meta-analyses; random effects meta-analyses
anterior open bite 166–167
Class II malocclusion
fixed appliances 146–147, 148–149
Herbst appliances 152–153
cleft lip and palate, presurgical infant orthopedic treatment 126–127
curing lights 56–57, 92–93
dental anomalies 128–129
endodontically treated teeth, root resorption 184–185
headgear 114–115
intraoral appliances for TMJ disorders 192–193
laceback ligatures 102–103
mandibular intercanine width 180–181
maxillary growth, functional appliances on 150–151
molars, distalization 40–41
obstructive sleep apnea 158–159, 160–161, 162–163
pain control 170–171
peg-laterals 156–157
protraction face masks 122–123
self-etch primers 94–95
surgically assisted rapid maxillary expansion 138–139
temporary anchorage devices 100–101
metabolic factors, on facial shape 73
meta-epidemiology 58–59
metal ions 217r
method, in RCT papers 38–41
methodology, science 12–22
microbiota, fixed appliances on 217r, 218r, 244r
midendocanthion, growth velocity 74, 76
midfacial hypoplasia, see also cleft lip and palate distraction osteogenesis 230r
midline position, smile attractiveness 190–191, 253r
midpalatal suture, alternating rapid maxillary expansion and constriction 226r
military career, Archie Cochrane 2
mini-implants 104–105
miniscrew implants 213r
mixed dentition 240r
mixed treatments, meta-analyses 58
molar expansion, posterior crossbites 137
molars, see also third molars
bonded tubes 96–97
distalization 241r
meta-analysis 40–41
second and third molar eruption stage 118–119
extractions 232r
laceback ligatures 102–103
monomers, leaching 217r, 259r
mouthguards 241r
Moyers Symposium 4
multicenter studies 62–65
multilevel models 69
multilevel principal component analysis 77, 78
multiple comparison tests, facial shape 77–78
multiple interventions meta-analyses 58
multiplicative scales 53
myofunctional therapy 241r, 244r
obstructive sleep apnea 160–161, 236r, 242r
n
narrow-sense heritability 70, 71
nasal alveolar molding appliances 131
nasal septum, alternating rapid maxillary expansion and constriction 226r
nasion, growth velocity 76
National Dental Practice–based Research
Network 62–65
National Institutes of Health 27
National Library of Medicine, see MEDLINE
negative findings 15, 45–47
nerve injury, third molar extraction 196–197
network meta–analyses 108–109, see also multiple
interventions meta–analyses
obstructive sleep apnea 163–163
networks, multicenter 62–65
nickel hypersensitivity 241r
nickel titanium initial arch wires 107
night wear Hawley retainers 177
95% confidence interval 40, 43, 56
no effect, line of 43, 56
non–English language literature 26
non–steroidal anti–inflammatory drugs 169, 240r, 247r, 258r
non-surgical expansion
maxilla 134–135, 140–141, see also rapid
maxillary expansion; slow maxillary expansion
root resorption 252r
nonsyndromic oligodontia, genetics 237r
normal variation, facial 70, 73, 74
NOT (Boolean operator) 29, 30
null hypothesis 38
numbers needed to treat (NNT), incisal trauma
prevention 117
nutrition, on facial shape 73

O
observational studies 16
obstructive sleep apnea 158–159, 212r, 241–243r
blood pressure 162–163, 242r
distraction osteogenesis 230r
functional appliances 235–236r, 242r
myofunctional therapy 160–161, 236r, 242r
orthognathic surgery 243r, 245r
occlusion, temporomandibular joint
disorders 255–256r
oligodontia (nonsyndromic), genetics 237r
One Man’s Medicine (Cochrane and Blythe) 1
open–access journals 61
open bite, see anterior open bite
Open Grey (database) 27
OpenTrials 27
operationalization 14
OR (Boolean operator) 29, 30
oral health promotion 244r
oral hygiene, temporary anchorage devices 101
Orthodontic Appliances (MeSH term) 28–29
orthodontic mini–implants 104–105
Orthodontic treatment for posterior crossbites
(Harrison and Ashby) 7
orthodontically induced external apical root
resorption 182–183
Class II malocclusion 182–183, 252r
endodontically treated teeth 231r
radiography 186–187
orthognathic surgery 244–246r
Class II malocclusion 221r
mandibular setback 223r
obstructive sleep apnea 243r, 245r
psychosocial impact 248r
quality of life 248r
stability of treatment 245r, 251r, 255r
on temporomandibular joint 256–257r
orthopedic appliances 233–234r
Class III malocclusion 222–223r
orthopedic treatment, cleft lip and palate 126–127, 130–131
osteoarthritis, temporomandibular joint 246r, 257r
outcome reporting bias 61
outcomes, see also core outcomes
cleft lip and palate 225r
measures 69
trials 51
overbite, see also deep bite
treatment of anterior open bite 166–167
Ovid databases, proximity operators 31
oxygen saturations, obstructive sleep apnea 160–161

P
pain 246–247r
cardiovascular disease 168–169, 170–171, 247r
temporomandibular joint 192–193, 256r
third molar extraction 196–197
panels, see expert panels
pantomographs, mandibular canines 113
paracetamol 169, 171
parent satisfaction 172–173, 248r
parentheses, combining Boolean operators 30
participants
adding to literature searches 31
involvement in research design 60–61
loss 52–53
in RCT papers 38
part–time retention procedures 178–179
patient satisfaction  172–173, 247–248r, see also quality of life  
patients, see participants  
Pax3 gene  76  
peer review, AJO‐DO  59  
peg‐laterals  156–157, 240r  
per protocol analysis  52–53  
performance bias  52  
perinatal medicine, clinical trials register  1, 3  
periodontal defects  238r  
periodontal health  174–175, 249r, 251r  
perioral features, heritability  71  
permanent incisors, peg‐laterals  156–157, 240r  
permutation method, multiple comparison tests  77  
Pew Trust  6  
pharmaceutical industry, publication bias  55  
phenotype/genotypes, facial  70, 72  
phrases, search on  30  
PICO approach  51  
piezocision  210r  
placebos and placebo effect  15  
plasma arc lights  92–93  
platforms (service providers), electronic searching  27–28  
plausibility  13  
pogonion, growth velocity  76  
polycarbonate brackets, leaching  217r, 259r  
pooled effect, systematic reviews  56, 58  
populations  14–15  
outcome measures  69  
posterior crossbites  7, 136–137, 226–227r  
temporomandibular joint disorders  256r  
postmarket surveillance  19  
postoperative infections, third molar extraction  196–197  
powered toothbrushes  244r, 250r  
power of studies  15, 39, 54  
negative findings  46  
premature births, forest plot on  3  
presurgical infant orthopedic treatment, cleft lip and palate  126–127, 130–131  
prevalence, cross‐sectional studies  16–17  
principal component analysis  73, 74  
multilevel  77, 78  
PRISMA (guidelines)  59  
prisoner of war, Archie Cochrane as  2, 3  
probabilism, determinism vs.  12–13  
ProQuest  27  
protraction face mask, see also face masks  
Class III malocclusion  122–123  
knowledge required  6  
proximity operators  30–31  
psychosocial impact, orthognathic surgery  248r  
puberty, timing on facial shape  73, 75  
publication bias  55, 61–62  
PubMed service  26, 35  
   no proximity operators  31  
   search example  32–33  
pulpal health  250r  
pulsed ultrasound, low intensity  230r  
P values  54  
   permutation method  77  
q  
quad‐helix appliances, fixed  137  
quality of life  248r  
cleft lip and palate  224r  
quasiexperiments  20  
quasirandomization  51  
questions  12, 51  
r  
radiography  228–230r, see also cephalometry  
root resorption, endodontically treated teeth  186–187  
random effects meta‐analyses  58, 69  
dental anomalies  129  
randomization  18, 51–52  
   assessing method  39  
randomized controlled trials (RCTs)  18–20, 49, 248r  
   adhesives for molar tubes  96–97  
   analysis  52–53  
   electronic searching for  25–36  
   interpretation  37–41  
   intraoral appliances for TMJ disorders  192–193  
   maximizing value of  50–55  
   reviews of  5, 21  
   search filter for  33  
ranking of interventions, meta‐analyses  58  
rapid maxillary expansion  134–135, 140–141, 226–227r, see also alternating rapid maxillary expansion and constriction  
surgically assisted  138–139, 227r  
rare diseases, case‐control studies  17  
ratios  53  
recommendations, strength of  44, 62  
rectangles, forest plots  56–58  
refutation  14
registration, clinical trials 62, see also trials registers
relapse, prevention 176–177
reporting, selective 61–62
reporting guidelines 49, 59, 60
  CONSORT 41, 58–60
research awareness 61
research designs 15–22
  involvement of participants 60–61
research methodologists 15
resistance to change 23
retention procedures 176–177, 251r
  clear vacuum-formed thermoplastic retainers 178–179
retrospective design 17, 41
reviews, see systematic reviews
revision
  Cochrane reviews 41
search terms 34–35
Risk of Bias Tool (Cochrane) 55
risk ratios 53
root damage 252r
root-filled teeth, see endodontically treated teeth
root repair 252r
root resorption 252–253r, see also orthodontically induced external apical root resorption
  endodontically treated teeth 182–183, 184–185, 231r, 252r
radiography 186–187
genetics 237r
orthodontic tooth movement 188–189
roughness, interproximal enamel reduction 154–155

5
Sackett, David 4–5
samples
  confidence interval 40
  negative findings 46
  size 15, 39
science, methodology 12–22
Scopus (search facility) 26
scores, RCT quality 55
scurvy 1
searches
  combining terms 31
  for trials 5
  electronic 25–36
search filters 33–34
secondary sources 22
selective reporting 61–62
self-etch primers 94–95
self-ligating appliances
  network meta-analysis 108–109
  root resorption 253r
  systematic reviews 110–111, 217–218r
sensitivity, database searching 25
sequential treatment assignment 51
service providers, electronic searching 27–28
Shaw, Bill (Professor) 5
sleep disorder breathing, see also obstructive sleep apnea
  on facial shape 73
slow maxillary expansion 134–135
smile attractiveness 190–191, 253r
SNA angle, headgear 115
soft tissue profile 253r, see also facial shape
space maintenance 254r
Spanish civil war 2
specificity 13
speech 254r
stability of treatment 254–255r
  anterior open bite 166–167, 244r, 254–255r
  Class II malocclusion 221r, 254r
  Class III malocclusion 223r, 254r
  distraction osteogenesis 230r
  orthognathic surgery 245r, 251r, 255r
  rapid maxillary expansion 227r
stainless steel initial arch wires 107
standards, guideline quality 22
STARD (guidelines) 59
statistical significance 40
statistics
  multilevel models 69
  need for 15
stemming (words) 30
stochastic associations, determinism vs. 12–13
strategies, electronic searching 28–35
strength of recommendations 44, 62
streptokinase, delay in adoption 3
STROBE (guidelines) 59
subgroup analyses 53, 54
subjects, see participants
subnasale, growth velocity 76
subscription services, electronic searching 27
sucking habits 237r
SUCRA values, self-ligating appliances 108–109
summaries, systematic reviews 44–45
superelastic nickel titanium initial arch wires 107
supernumerary teeth, cleft lip and palate with 129
surface roughness, interproximal enamel reduction 154–155
surgery, see also orthognathic surgery
for anterior open bite 166–167
on facial shape 73
facilitating orthodontic treatment 200–201
surgery-first approach, orthognathic surgery 245–246r
surgically assisted rapid maxillary expansion 138–139, 227r
synonyms 31
MeSH 28
systematic reviews 20–21, 49, 248r
anterior open bite 164–165
canines, impaction and transmigration 112–113
Class II malocclusion
Division 2, 144–145
fixed appliances 146–147, 148–149
incisal trauma 116–117
cleft lip and palate, presurgical infant orthopedic treatment 126–127, 130–131
curing lights 92–93, 211r
deep bite correction 142–143
dental anomalies 128–129
duration of treatment, fixed appliances 198–199
headgear 114–115
interproximal enamel reduction 154–155
intraoral appliances for TMJ disorders 192–193
laceback ligatures 102–103
maxillary growth, functional appliances on 150–151
mini-implants 104–105
molar distalization 118–119
NOT (Boolean operator) 30
obstructive sleep apnea 158–159, 160–161, 162–163
functional appliances for 235r
patient and parent satisfaction 172–173
periodontal health 174–175
protraction face masks 122–123
quality 55–58
rapid maxillary expansion 140–141
reading of 41–45
references 209–259r
root resorption with tooth movement 188–189
searching for information 25–36
self-etch primers 94–95
self-ligating appliances 110–111, 217–218r
surgically facilitated treatment 200–201
third molars
on crowding 194–195
extraction vs. coronectomy 196–197
Tanzania, heritable facial features 70
templates, research papers 59
temporality 13
temporary anchorage devices 100–101, 212–215r
for anterior open bite 167, 214r
Class II malocclusion 221–222r
Class III malocclusion 223r
Cochrane review on 41–45
temporomandibular joint disorders 255–257r
functional appliances 236r
intraoral appliances 192–193, 236r
orthognathic surgery 246r
teriparatide 210r
testability, hypotheses 13–14
thermoeelastic initial arch wires 107
thermoplastic retainers 177, 178–179, 251r
third molars 257r
agenesis 212r
on crowding 194–195, 227–228r
extractions 196–197, 232r, 257r
vs. coronectomy 196–197, 225r, 257r
mandible 194–195
three-dimensional imaging 228–229r
left lip and palate 224r
thrombolytic agents, delay in adoption 3
timing of treatment, Class III malocclusion 223r
tomographic digital models 229r
orthodontic treatment 200–201
third molars
on crowding 194–195
extraction vs. coronectomy 196–197
Treatise of the Scurvy (Lind) 1
translation, search strategies 34–35
translational research 21–22
transmigration, mandibular canines 112–113
transparency of research 61–62
transposition of teeth 257r
trauma 228r
on facial shape 73
incisors 116–117, 228r
mouthguards 241r
Treatise of the Scurvy (Lind) 1
treatment times, see duration of treatment
trials registers 26–27
perinatal medicine 1, 3
triple blinding 39, 52
truncation, in search terms 30
twin studies 70

U
ultrasound, low intensity pulsed 230r
uncertainty 37, 40–41
unilateral peg-laterals 157
updating, Cochrane reviews 7
upper airway 212r
alternating rapid maxillary expansion and constriction 226r
cone beam computed tomography 228–229r
extractions 232r, 242r
functional appliances 220r, 233r
obstructive sleep apnea 158–159, 241r

V
vacuum-formed retainers 178–179, 251r
value-based payment 23
varnishes
chlorhexidine 215r
fluoride 203
viewpoints (Hill), causality 13
Virtual Health Library 26
vocabulary (controlled) 28–29
volunteers 19

W
Wales, facial shape 76–77, 78
wasted money 59
Web of Science, conference proceedings 27
websites
American Dental Association 7–8
databases 22, 26, 27
GRADE 62
InterTASC group 33
listed 35
MeSH 31
National Library of Medicine 32
for research awareness 61
Scopus 26
whiskers, forest plots 57
white lesions, see demineralized white lesions
wild card searches 30
Wiley, Cochrane Library 26
Wilson–Richmond scale 71
women, peg-laterals 157
World Health Organization
database access 26
trials registers 27
Worthington, Helen, Cochrane Oral Health Group 5

X
xylitol 244r

Z
Zetoc, conference proceedings 27