

A

ab dolly 89
 abdominal
 definition 109
 pain 74
 abduction action 201
 ab wheel rollout 88
 acceleration and deceleration
 73, 134, 167, 219
 accumulation phase 263
 accupressure 51
 ACL injury prevention 71
 ACSM Journal 138
 activation 239
 active-isolated stretch 56
 Active Release Therapy, ART 50
 active warm-up 54
 adductor group 67, 75, 213, 218
 aerobic fitness, *see cardiovascular exercise*
 agility program 73
 Airdyne 135, 143, 147
 Allman, Fred 197
 anaerobic endurance 136
Anatomy Trains, see Myers, Thomas
 ankle-dominant squatting 44
 ankle mobility 31-32, 43, 46, 66
 anterior core 88
 anterior knee pain 52, 66, 67
 anterior pelvic tilt 200
 anti-inflammatories 151
 Arthur, Mike 250, 252
 assessments, *see Functional Movement Screen*
 asymmetry 76
 Athletes' Performance
 43, 45, 68, 94, 132, 225, 232

B

back pain 61, 91, 115, 176, 220
 back squats 61, 198
 balance squats 232
 balance training, *see unstable surface training*
 Ballantyne, Craig 140, 282, 306
 bands 49, 227-228, 265, *see also Theraband*
 beginners to training 247
 belt squats 62, 176
 bench press 204, 212, 248
 bodybuilding methodology 253, 262

body types 254
 bodyweight squats 44, 200, 201
 bottom-up approach 229
 bottoms-up kettlebell carry 191
 box squat 196, 232
 bracing 87
 bridge with alternate march 109
 bridging 87, 106
 Burgener, Mike 241
 Burton, Lee 34

C

cardiovascular exercise 60, 129-130, 138
 see also conditioning
 central nervous system 242, 249, 251
 chains 206, 265
 change of direction 71, 134
 Chek, Paul 86, 101, 221
 chin-up 212
 chondromalacia patella 66, 223
 chop and lift 93, 96
 Chu, Don 17
 circuit training 250-251, 280
 Clark, Mike 51, 68, 86, 91
 clean-grip front squat 202
 cleans 62, 160, 162, 212
 climbers 147
 closed-chain 78
 close-grip snatch 63, 160
 coaching Olympic lifts 158
 collagen 50
 Combine, NFL test 167, 207
 Comerford, Mark 85
 compression 61
 concurrent periodization 259
 conditioning 73, 129, 175, 182
 conjugate periodization 259
 Contreras, Bret 69
 Convertaball twist 101
 Cook bar 94
 Cook, Gray 14, 31, 34, 42, 68, 76, 86,
 93, 103, 191, 225, 229
 Cook hip lift 106, 122
 core training 33, 77, 85, 88, 96, 230
 Cosgrove, Alwyn 15, 17, 140, 189, 251
 crossover grip 202

D

diagonal pattern 38
Dalcourt, Michol 65
Davies, Clair and Amber 53
deadlifts 62, 67, 77, 102, 122-123,
202-203, 223
deceleration 134, 219
DeRosa, Carl 33, 97
*Designing Strength Training Programs
and Facilities* 85
developing elasticity 166
*Diagnosis and Treatment of
Movement Impairment Syndromes,*
see Sahrman, Shirley
diagonal slings 228
dorsiflexion 43
draw in 87
drills, mobility 45-49
dual-action bikes, *see Airdyne*
dumbbell cleans 160
dumbbell snatch 63, 101, 160
Dynamax 184
dynamic
 chop and the lift 96
 single-leg exercise 219
 warm-up 54, 220
Dyrek, Dr. Dan 75, 76
dysfunctional hip flexors 117

E

eccentric
 contraction 244
 single-leg squat 224
 strength 70
ectomorph 254
elasticity 73, 164
ellipticals 147
endomorph 254
endurance training 129, 150
energy leaks 85
energy system development 131
exercise order 250
exercise selection 236
explosive leg power 164
explosive movements 241
external load 221

F

facilitating the glute medius 225
Falsone, Sue 45
farmer walks 191
fast-twitch fiber 130
female runners 148

femur length 176
Ferrugia, Jason 248, 267
fiber type 129-130
fibroblasts 50
Fish, Jeff 35
flexibility 43, 54
 see also stretching
flexion 61
FMS, *see Functional Movement Screen*
foam rolling 46, 68, 239
foot-elevated hip lift 122
Forsythe, Shad 68, 225
forty-yard dash 167
four-day workout program 268, 269
four-phase undulating periodization 263-264
Francis, Charlie 129, 174
Frankel, Chris 189
Freidman, Craig 232
Freisen, Peter 55, 76
Frenn, George 196
frontal plane 47, 67, 75, 220, 310
front-side mechanics 171
front squat 45, 61, 198, 201-202, 212
functional anatomy 59, 71
functional continuum 24
Functional Movement Screen 31, 34-42, 76
functional training, definition of 21
Functional Training for Sports 21, 24, 85, 94,
113, 215, 236

G

Gadja, Bob 252
Gambetta, Vern 17, 213, 237
Garhammer, John 262
getup 191
Gibala, Martin 139
gleno-humeral joint 33
glute activation 92, 201
gluteal amnesia 91, 106
glutes 32, 52, 66, 67, 213, 225
Goldenburg, Loren 100
Gray, Gary 46, 47, 86, 213
grip, snatch 63
groin 52, 74
growth hormone production 250

H

half-kneeling
 chop 94
 position 185
 sequential chop 95
 sequential lift 38
 stability lift 38, 95

hamstring
 group 52, 119
 injury 41, 91, 119, 167
 stretch 120

hands-free front squat 201

hang clean 62, 162

Hartman, Bill 259

Hatfield, Fred 236, 252

heart rate monitor 142, 146

heart rate reserve method 142

hernia 74

high intensity interval training (HIIT) 140

high-velocity training 157

high-volume 255

hip
 adduction 75, 226
 dominant exercise 118, 199, 245
 dominant single-leg training 223
 extension exercises 91, 121
 extensors 68, 75
 flexion 32, 75, 77, 113
 flexors 75, 76
 hike 77
 internal rotation 76
 lift 106, 122
 mobility 31, 46
 pain 91
 range of motion 77
 rotator group 51, 69
 stabilizers 67

HIT (High Intensity Training)
 252, 253, 254, 266

Hodges, Paul 85-86

hollowing 87

horizontal pressing 205, 246

horizontal pulling 27, 64, 246

Hyman, Mark 33

hypertrophy 243, 253, 255, 256, 258

I

iliacus 32, 77, 114

iliotibial (IT) band 66

inguinal hernia 74

injury 59, 151, 237, 246, *see also pain*

in-line lunge 40

intensification phase 263

intermediate fibers 130

interval training 135, 138, 140, 143, 153, 182

inverted rows 63, 100

Ireland, Willson, Ballantyne and Davis
 66, 224

isometric supine bridge 108

Iwasaki, Omi 43

J

Janda, Dr. Vladimir 56, 87, 91, 93, 118, 119

Javorek, Istvan 276, 281

John, Dan 47, 88, 190, 276

joints, mobility vs stability 31

Jones, Arthur 266

Journal of Orthopaedic and Sports Physical Therapy 66

Journal of Physiology 139

Jull, *see Richardson, Hodges and Jull*

jump squats 163, 240

Just Jump vertical jump testing 164

K

Kabat, Dr. Herman 93

Kaczmarek, Brad 229

Kalos Shenos 35

Karvonen method 142

Keiser 64, 102, 178, 181, 283

kettlebells 190-191, 240

Kettlebells from the Ground Up 35

King, Ian 245, 263

Klein, Karl 197

knee
 dominant 67, 245
 extension movements 199
 flexion 44
 injury prevention 71
 pain 52, 66-67, 91, 223-224
 rehab 197
 wraps 62

Knott, Maggie 93

L

lactate threshold, *see threshold testing*

landing skills 71, 73

landmine 100

lateral
 conditioning 77
 lunges 218
 resistance 79, 191
 squats 47, 77, 218
 subsystem 213

Lee, Diane 143

leg
 curl 124
 press 62
 swings 46

Leistner, Dr. Ken 205, 236, 242, 254, 266

Lifeline lateral resistor 79

linear periodization 262

Liponis, Mark 33

Low Back Disorders 86
low back pain, *see back pain*
low-budget programming 276
lower-crossed-body model 87
lumbar
 extension 91
 flexion 32
 range of motion 98
 spine 98
lunges 47, 77, 218

M

manual therapists 76
massage, *see soft tissue*
Mattes, Aaron 56
maximum oxygen consumption 130
 see also VO2 Max
MBSC/Mike Boyle Strength & Conditioning 36
McBride, Jeffrey 85, 86
McDougall, Christopher 153
McGill, Stuart 85, 86, 88, 91, 100, 103,
 106, 190-191
McKechnie, Alex 49, 228
McRobert, Stuart 205, 254, 255, 260, 266
Mechanical Basis of Human Running Speed 171
Mechanical Low Back Pain 33, 97
medicine ball 184, 240
mesomorph 254
mini bands, *see bands*
mobility, general 37, 43, 45-49
 ankle 32
 circuit 278
movement specificity 134
multifidus muscles 103, 106
multi-planar lunges 48
Muscle Activation Technique (MAT) 50
muscle fibers 50, 129
muscular specificity 134
Myers, Thomas 56, 93, 218

N

National Academy of Sports Medicine
 (NASM) 56, 68
National Strength and Conditioning
 Association (NSCA) 255
NFL Combine 167
NSCA Journal 262

O

oblique strain 41
off-season training 183
older client 178

Olympic lifting, alternatives to 163
Olympic weightlifting 157, 240, 266
one-arm dumbbell snatch 101
one-leg exercises, *see single-leg*
open-chain 78
overhead athletes 209
overhead press 211
overuse injury 61, 151

P

pain, general, *see also specific pains* 74, 151
Pallof, John 64, 80, 220
Pandolfo, Jay 212
Parker, Johnny 59
patella-femoral pain, *see knee pain*
pause squat 233
pelvic
 floor 103
 position 200
 stabilizers 102, 214
pelvis 76
performance testing 132-133
Perform Better 14, 15, 79, 94, 228
periodization 259, 262-264
Peripheral Heart Action (PHA) 252
physical therapy 150
physiological testing 132-133
planes of movement 307
plank 88, 190
plate circuit 279
plyometrics 70, 72, 77, 240
Poirer, Chris 14
Poliquin, Charles 23, 60, 123, 242, 263
Porterfield, James 33, 97, 101
posterior chain 121, 200, 220
power development 157, 164, 178, 240
preseason conditioning 136
 see also conditioning
pressing exercises 204
program design 236, 245
progressing plyometrics 72
progression concept 80
progressive range of motion 67, 217
progressive resistance exercise 260
proprioception 72
psoas 32, 77, 78, 91, 113, 118
push-ups 206

Q

Q angle 71, 148
quad-dominant 121
quadratus lumborum 77, 213, 227
quadriceps 52
quadruped exercises 87, 103-104

R

range of motion 33
ratio
 of exercises 246
 of pulling to pressing 26
reactive neuromuscular training (RNT) 68, 225
reactive work 73
rear-foot-elevated split squat 176, 229
 see also split squat
reciprocal inhibition 91
rectus femoris 113
rehabilitation 59, 78
rep ranges 242
retro walking 70
Richardson, Hodges and Jull 85-86
Robbins, Paul 132
Rolf, Ida 56
rollouts 88-89
Romanian deadlift 122
Rose, Greg 14
Rospkof, Greg 50
Ross, Barry 202
rotational
 lunges 47
 medicine ball throws 184
 squats 47, 77, 218
 training 93
 of the lumbar spine 98
rotator cuff 26, 63, 64, 209
rowers 150
running 138, 146, 148, 150

S

sagittal plane 67, 220, 310
Sahrmann, Shirley 33, 38, 41, 59, 85, 86,
 88, 91, 93, 97, 113, 120, 226
sartorius 113
scapulae retraction strength 64
scapulae retractors 56
Schroeder, Jay 244
Schwinn Airdyne, *see Airdyne*
screening, *see Functional Movement Screen*
seated psoas contraction 118
segmental proportion 176
self-massage 51
shoulder pain 48, 63
Shuttle MVP 70, 178, 240
shuttle runs 135, 146
Signorile, Joe 178
Simmons, Louie 196, 206, 265
 see also Westside Barbell

single-joint exercises 242
single-leg
 deadlifts 62, 67, 123, 223
 exercise 216, 221
 squat 62, 67, 77, 102, 176, 212, 232
 stability 223
 unsupported exercises 67
sled training 186, 187, 188
slideboard 77, 79, 89, 136, 147, 181
 leg curl 70, 124, 223
 lunge 102, 219, 231
slow-twitch fiber 130
snatch 63, 101, 160
snatch grip 63
soft tissue 67, 76, 117, 153, 239
special strength 186
specific strength 187
speed
 at the cellular level 129
 development 240
 training 129, 167
spinal load 61, 200
split squat 47, 80, 218, 228
 see also rear-foot-elevated
sports hernia 74
sport-specific training 175
spot reduction 109
sprinting 78, 79, 167, 169-170, 240
squat 44-45, 61-62, 67, 77, 176,
 195-196, 198, 200-202, 212, 232
 depth and knee stress 197
 form 44
stability 37, 72
stability-ball leg curl 126
stability-ball rollouts 89
stairclimbers 148
Staley, Charles 21, 143
standing lift 39
Starr, Bill 236
start drills 173
static stretching 54, 77, 278
static supported exercises 216
static unsupported exercises 217
stationary bike, *see Airdyne*
steady-state cardio 140
Steinhaus, Dr. Arthur 252
StepMill 148
step-up lift 39
Stone, Mike 262, 263
Strack, Dr. Donnie 50, 61, 75

straight-leg
 deadlift 77, 122, 223
 hip abduction 226
 hip extension 121
 mini-band walks 227
strength
 chart 212
 comparisons 210
 program 241
strengthening dysfunction 39
stretching 54, 76-77, 120, 239, 278
 see also flexibility
stride length 170
suitcase carry 191
superficial core 109
Swain, Dr. David 138
synergistic dominance 91

T

Tabata, Dr. Izumi 138
teaching the Olympic lifts 157
technical failure 23, 60, 158
 see also Poliquin, Charles
tempo 243, 256
tempo runs 135, 146
tendinitis 61
tendinosis 50, 61, 151
tendon rehab 61
ten-percent rule 60
ten-rep circuit 251, 280
tensor fascia latae (TFL) 52, 113
ten-yard dash 167
 see also sprinting
terminology 307
The Journal of Applied Physiology 171
Theraband or Theratube 49, 68, 200, 225,
 227, 233, *see also bands*
*Therapeutic Exercise for Spinal Segmental
 Stabilization in Low Back Pain* 85
Thibedeau, Christian 244
Thomas position 117
thoracic mobility 32, 45
three-day workout program 271
threshold testing 132-133
time under tension 245, 256
timing options 169
tissue density, *see soft tissue*
Torine, Jon 35
total system weight 221
training age 247
training endurance athletes 150

transverse
 lunges 77, 218
 plane 220, 310
 plane mobility 46
transversus abdominis 106
trap bar deadlifts 203
treadmill 146-147
triathletes 150
trigger points 51, 55, 67
Trigger Point Therapy Workbook, The 53
TRX suspension training 189
turf toe 41
Turkish getup 191
twenty-percent rule 137
twenty-rep test 260
two-arm straight-leg deadlift 123
two-day workout programs 274

U

Ultimate Back Fitness and Performance 86
Ultra-Prevention 33
Ultraslide 231
 see also slideboard
undulating periodization 263-264
unstable-surface training 21, 25, 177
upper-body
 flexibility 199
 injuries 63
 pulling and pressing 26, 63, 246
 strength 204

V

Valslide 89, 219, 233
 see also slideboard
variable resistance 265
vastus medialis 52
velocity 78
Vermeil, Al 14, 17, 73, 259
Verstegen, Mark 13, 17, 23, 93, 94, 131, 236
Vertec 164
vertical
 jump 164, 171
 pressing movements 246
 pulling movements 26, 63, 246
Vertimax jumps 176
VMO development 66
VO2 max 130, 132, 138
volume and strength gain 205
Voss, Dorothy 93

W

walking lunge 219, 233
wall slides 48
Waters, Valerie 233
 see also Valslide
weak hip stabilizers 67
weighted sled drills 186
weight vest 62, 215
Westside Barbell 62, 196, 206, 259, 265
Weyland, Peter 171
Winckler, Gary 174
Wood, Karen 217
work capacity model 131
workout duration 243
workout programs 251, 268, 269, 272,
 275, 278-300
work-to-rest ratio 142
 see also interval training
wrist flexibility 61

X

X Band 49
X-Walks 227-228

Y

YTWL shoulder series 65

Z

Zigler, Zig 306