Subject Index

A
Abrasiveness, synthetic turf, 103
Anthropometric test devices, 60
Artificial turf, see Synthetic turf
ASTM F 355, 123
ASTM F 1551, 103
AstroTurf, field performance over 30 years, 123
Athletic equipment
certification, 89
helmet fitting errors, 83
Athletic fields, see Football fields

B
Biostatistics, youth football, 21

C
Catastrophic injury, transient quadriplegia, 53
Certification, protective equipment, 89
Cervical spinal cord
anthropometric test devices, 60
injuries, 42
neck protection, 75
stenosis, 53
Cervical test device, improved, 60
Chinstrap, helmet fitting errors, 83
Coaching
education, 3
legal issues, 184
safety orientation and training skills program, 21, 167
Compliance, protective equipment certification, 89
Compression resistance, synthetic turf, 103
Computed tomography, spinal stenosis, 53
Concussion, management, 35
Conditioning, 167
Contusion, 35
Creeping red fescue, 145
Crumb rubber, turfgrass, 132
Cutting height, turfgrass, 145

D
Dimensions, of facilities, injury prevention, 97
Dissemination, injury prevention information, 3
Dynamic bases, envelope system, 114

E
Envelope system, 114
Epidemiology, youth football, 21
Equipment, safety and, 167
Expert witness, 167

F
Facilities
dimensions, 97
legal issues, 184
safety and, 167
Fall football, NCAA Injury Surveillance System, 9
Fertility, turfgrass, 132
Finite element analysis, anthropometric test devices, 60
Fitting errors, helmets, 83
Flammability, synthetic turf, 103
Football facilities, safety guidelines, 97
Football fields
enhancing participant safety, turfgrass, 156
safety guidelines, 97
traction measurement, 145
turfgrass, 132

G
Gmax testing, 123
Grab tear, synthetic turf, 103

H
Head injuries, 35
Helmet, fitting errors, 83

I
Impact absorption, see Shock absorbency
Injury
catastrophic, 42
criteria of collegiate fall and spring football, 9
criteria, anthropometric test devices, 60
helmet fitting errors and, 83
insurance underwriting, 172
surface hardness, turfgrass, 156
youth football, 21

Injury prevention
barriers to, 3
coaches safety orientation and training skills program, 21
envelope system, 114
football fields and facilities, 97
legal issues, 184
protective equipment certification, 89
safety standards and, 172
youth football, 21
Insurance underwriting, 172

K
Kentucky bluegrass, 132, 145

L
Leagues, legal liability, 184
Legal issues, 184
Legal liability, 172, 176
Light, reduced conditions, turfgrass, 132
Litigation, 176, 184

M
Magnetic resonance imaging, spinal stenosis, 53
Maintenance, turfgrass, 156
Mesh element matrices, interlocking, 156
Misuse, legal issues, 184

N
NCAA Injury Surveillance System, 9
Neck injury, see Cervical spinal cord
Neck protection equipment anthropometric test devices, 60
evaluation, 75
Noncontact practices, 9
"Nottsfilm", 114

O
Officiating, legal issues, 184

P
Performance standards
neck protection, 75
synthetic turf, 103
Pile wear, synthetic turf, 103
Plant growth regulator, turfgrass, 132
Post care, 167
Products liability, 184
Protective equipment certification, 89
legal liability, 184

Q
Quadruplegia, transient, return to play, 53

R
Resiliency-softness, turfgrass, 156
Return to play
after transient quadriplegia, 53
following concussion, 35
Risk
avoidance and management, 184
factors, catastrophic injury, 42
injury, 172
Root zone, 156
Rye grass, perennial, 132, 145

S
Safety
coaches and, 21, 167
improved cervical test device, 60
protective equipment certification, 89
risk avoidance and management, 184
Safety education, 21
Safety guidelines, football fields and facilities, 97
Sand-based root zone, turfgrass, 132, 156
Schools, legal liability, 184
Shock absorbency
envelope system, 114
synthetic turf, 103, 123
turfgrass, 132
Shoe traction
synthetic turf, 103, 123
turfgrass, 132, 145
Space, of facilities, injury prevention, 97
Sports field base construction, 114
Sports insurance, 172
Spring football, NCAA Injury Surveillance System, 9
Standards, protective equipment certification, 89
Stenosis, 53
Stingers, 53
Supervision, of coach, 167
Surface hardness, turfgrass, 156
Surfaces safety guidelines, 97
(see also Synthetic turf)
Surveillance, barrier to injury prevention, 3
Symptoms, continuing, concussions, 35
Synthetic turf envelope system, 114
field performance over 30 years, 123
standard test methods and performance standards, 103
Tackling
  catastrophic injury and, 42
  head down, 42
  safety and, 167
Tall fescue, 145
Test methods, synthetic turf, 103
Test standards, neck protection, 75
Tolerance, concussions, 35
Training, legal issues, 184
Trauma, repeated, concussions, 35
Tuft bind, synthetic turf, 103
Turfgrass
  enhancing participant safety, 156
  management research program, 132

traction measurement, 145
Turf system, 103

U
Unbound structures, envelope system, 114

W
Water permeability
  envelope system, 114
  synthetic turf, 103

Y
Youth football
  injury, 21
  injury prevention, barriers to, 3