## Subject Index

Abortion, see Sex-selective abortion  
Absorption, sex differences for drugs 474, 475  
Acute coronary syndrome, see Coronary heart disease  
Addison’s disease, features and treatment 319  
Adrenal gland  
  diseases, see Addison’s disease; Congenital adrenal hyperplasia; Pheochromocytoma  
  endocrine hypertension 325  
  hormones 317, 318  
  tumors 323, 324  
α-Adrenergic receptor  
  delayed ejaculation treatment with agonists 455  
  therapeutic targeting in benign prostatic hyperplasia 432  
Adrenocorticotropic hormone, see Cushing’s disease  
Adverse drug reactions (ADRs), sex differences 473, 474, 477, 478  
Aggression, see Violence against women  
Aging  
  allometric load age-specific sex differences 75–78  
  health care utilization and gender differences 486, 487  
  insulin-like growth factor-1 effects 299  
  lesbian, gay, bisexual and transgender population 14  
  mortality female advantage 482, 483  
  prospects for study 487  
Alcoholism  
  fetal alcohol spectrum disorders 39  
  stroke risks 135  
  treatment 201  
Aldosterone  
  primary aldosteronism 324  
  secretion regulation 317  
Allostatic load, see Stress  
Alosetron, irritable bowel syndrome management 179  
Alprostadil, erectile dysfunction management 451  
alteplase, sex differences in stroke treatment 140  
Ambiguous genitalia  
  assisted reproductive technology risks 60  
  chromosomal disorders 57  
  congenital adrenal hyperplasia 40, 41, 57, 58  
  environmental factors 60, 61  
  genital tubercule anatomical aspects 61, 62  
  genitalia development 55, 56  
  gonad malignancy risks 64  
  hormonal failures 60  
  hormone therapy 63  
  maternal androgen sources 58, 59  
  micropenis outcomes 66  
  molecular biology 56  
  placental dysfunction 60  
  reproductive duct development 54  
  sex assignment 62  
  sex determination 38, 39, 52–54  
  sexual identity 62  
  surgery  
    feminization surgery 64  
    masculinization surgery 63  
    outcomes 65  
    phalloplasty 66  
    undervirilized males 59  
    uterine remnants 64, 65  
Analgesia, see Pain
Androgen insensitivity syndrome (AIS) 40, 41, 56, 57
Androgen receptor (AR), mutations 56
Angina, see Coronary heart disease
Angiotensin-converting enzyme inhibitors
heart failure management 220
hypertension management, see Hypertension
Angiotensin receptor blockers (ARBs)
heart failure management 220–222
hypertension management, see Hypertension
Ankylosing spondylitis, see also Spondyloarthritis
clinical features 367, 368
genetics 370, 371
pregnancy 375–377
sex differences
clinical expression 371, 372
functional outcomes 373
incidence 369, 370
Anterior cruciate ligament (ACL), sexual dimorphism in injury 361
Antidepressants, see specific drug classes
Antimüllerian hormone, see Müllerian inhibiting substance
Arrhythmia
atrial fibrillation 232, 233
bradyarrhythmia 231
gender differences
cardiac electrophysiology 229, 230
treatment
catheter ablation 234
implantable cardiac defibrillator 234
pharmacotherapy 234
prospects for study 234, 235
sex hormone studies 230, 231
stress mediation 231
supraventricular tachyarrhythmias 232
ventricular arrhythmias 233
Arthritis, see Gout; Osteoarthritis; Rheumatoid arthritis; Spondyloarthritis
Aspirin, sex differences in stroke prevention 141
Atrial fibrillation
gender differences 232, 233
stroke risks 134
Attention deficit hyperactivity disorder (ADHD), fetal programming 45
Autism
clinical features 82, 83
epidemiology 83
male predominance mechanisms
immunoreactive theory 89
müllerian inhibiting substance 89
parental manipulation of sex ratio 89
sex differences in symptomatology 89, 90
pathogenesis
extreme male brain theory 83–85
testosterone role 85, 86
X-linked inheritance 86–88
Y chromosome role 88
prevalence 83
Basal metabolic rate (BMR), sex differences 284, 285
Benign prostatic hyperplasia (BPH)
diagnosis 431
etiology and pathogenesis 429, 430
histology 253, 257
nuclear receptors 257, 258
overview 428, 429
progression 430
signaling pathways 260, 261
treatment
drugs 431, 432
minimally invasive treatment 432
surgery 432, 433
Benzylamine, sex differences in metabolism 475
Beta-blockers
heart failure management 222–224
hypertension management, see Hypertension
Bone
aging effects on mass 311, 312
diseases, see Osteoarthritis; Osteomalacia; Osteoporosis; Paget's disease of bone; Rheumatoid arthritis; Spondyloarthritis
estrogen regulation 311, 312
Bone mineral density (BMD), antiepileptic drug studies 156
Botulinum toxin, overactive bladder management 436
Bradyarrhythmia, see Arrhythmia
Brain, see also specific areas
fetal sex steroid exposure and physical, cognitive, and behavioral outcomes 42, 43
sexual dimorphism 41, 42
Breakthrough, violence against women reduction 120
<table>
<thead>
<tr>
<th>Cancer complexity</th>
<th>cancer stem cells 247</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>epigenetics 247</td>
</tr>
<tr>
<td></td>
<td>gene mutations 246, 247</td>
</tr>
<tr>
<td></td>
<td>inflammation 247, 248</td>
</tr>
<tr>
<td></td>
<td>microRNAs 247</td>
</tr>
<tr>
<td></td>
<td>tissue environment 248</td>
</tr>
<tr>
<td></td>
<td>tumor cell heterogeneity 247</td>
</tr>
<tr>
<td></td>
<td>Warburg effect 248</td>
</tr>
<tr>
<td>Gall bladder cancer and nuclear receptor signaling</td>
<td>262</td>
</tr>
<tr>
<td>Incidence and gender differences</td>
<td>female-predominant cancers 242, 243</td>
</tr>
<tr>
<td></td>
<td>little or no difference between sexes 245</td>
</tr>
<tr>
<td></td>
<td>male-predominant cancers 243–245</td>
</tr>
<tr>
<td></td>
<td>overview 238–240</td>
</tr>
<tr>
<td></td>
<td>specific cancers by sex 241, 242</td>
</tr>
<tr>
<td></td>
<td>tumor biology studies 248, 249</td>
</tr>
<tr>
<td>Mortality and prognosis</td>
<td>240</td>
</tr>
<tr>
<td>Thyroid cancer, sex differences</td>
<td>306</td>
</tr>
<tr>
<td>Y chromosome in risk</td>
<td>249</td>
</tr>
<tr>
<td>Cardiac arrhythmia, see Arrhythmia</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular disease, see Coronary heart disease; Stroke</td>
<td></td>
</tr>
<tr>
<td>Carotid artery, stroke risks</td>
<td>dissection 136</td>
</tr>
<tr>
<td></td>
<td>stenosis 134, 135</td>
</tr>
<tr>
<td>Catechol-O-methyltransferase (COMT), sex differences in Parkinson's disease treatment with inhibitors</td>
<td>131</td>
</tr>
<tr>
<td>Cephadine, sex differences in metabolism</td>
<td>475</td>
</tr>
<tr>
<td>Child marriage, see Violence against women</td>
<td></td>
</tr>
<tr>
<td>Chronic kidney disease (CKD)</td>
<td>dialysis and sex differences</td>
</tr>
<tr>
<td></td>
<td>access 462</td>
</tr>
<tr>
<td></td>
<td>erythropoietin resistance 462</td>
</tr>
<tr>
<td></td>
<td>mortality 459, 460</td>
</tr>
<tr>
<td></td>
<td>end-stage renal disease progression 457, 458</td>
</tr>
<tr>
<td></td>
<td>hypogonadism 460, 461</td>
</tr>
<tr>
<td>City of Joy, violence against women</td>
<td>reduction 120</td>
</tr>
<tr>
<td>Clinical trials, inclusion of women</td>
<td>Food and Drug Administration policies and practices 469, 470</td>
</tr>
<tr>
<td></td>
<td>historical perspective 466, 467</td>
</tr>
<tr>
<td>prospects</td>
<td>471</td>
</tr>
<tr>
<td>rationale</td>
<td>467–469</td>
</tr>
<tr>
<td>Clomipramine, premature ejaculation management</td>
<td>454</td>
</tr>
<tr>
<td>Clopidogrel, sex differences in stroke prevention</td>
<td>141</td>
</tr>
<tr>
<td>Cluster headache, see Headache</td>
<td></td>
</tr>
<tr>
<td>Cognitive behavioral therapy (CBT), irritable bowel syndrome management</td>
<td>176, 180</td>
</tr>
<tr>
<td>Congenital adrenal hyperplasia (CAH)</td>
<td>ambiguous genitalia 57, 58</td>
</tr>
<tr>
<td></td>
<td>clinical features 318, 319</td>
</tr>
<tr>
<td></td>
<td>epidemiology 318</td>
</tr>
<tr>
<td></td>
<td>forms 319</td>
</tr>
<tr>
<td>Intrauterine testosterone effects</td>
<td>40, 41</td>
</tr>
<tr>
<td>Contraception, see Oral contraceptives</td>
<td></td>
</tr>
<tr>
<td>Coronary heart disease (CHD)</td>
<td>delay in seeking care 196, 197</td>
</tr>
<tr>
<td></td>
<td>diabetes, gender differences in risk 275–277</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>angiography 199</td>
</tr>
<tr>
<td></td>
<td>exercise stress testing 198</td>
</tr>
<tr>
<td></td>
<td>nuclear stress testing 198</td>
</tr>
<tr>
<td></td>
<td>risk factor assessment models 197, 198</td>
</tr>
<tr>
<td>Differential diagnosis</td>
<td>197</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>190–192</td>
</tr>
<tr>
<td>Erectile dysfunction comorbidity</td>
<td>448, 449</td>
</tr>
<tr>
<td>Fetal programming</td>
<td>43, 44</td>
</tr>
<tr>
<td>Hormone replacement therapy studies</td>
<td>primary prevention 207–209</td>
</tr>
<tr>
<td></td>
<td>recommendations 209, 210</td>
</tr>
<tr>
<td></td>
<td>secondary prevention 209</td>
</tr>
<tr>
<td>Prospects for study</td>
<td>203, 204</td>
</tr>
<tr>
<td>Rehabilitation</td>
<td>202</td>
</tr>
<tr>
<td>Risk factors</td>
<td>diabetes 194, 195</td>
</tr>
<tr>
<td></td>
<td>diet 192, 193</td>
</tr>
<tr>
<td></td>
<td>hypertension 194</td>
</tr>
<tr>
<td></td>
<td>obesity 195</td>
</tr>
<tr>
<td></td>
<td>sedentary lifestyle 193</td>
</tr>
<tr>
<td></td>
<td>smoking 193, 194</td>
</tr>
<tr>
<td></td>
<td>stress 195</td>
</tr>
<tr>
<td>Symptoms</td>
<td>acute coronary syndrome 196, 197</td>
</tr>
<tr>
<td></td>
<td>angina 196</td>
</tr>
<tr>
<td></td>
<td>myocardial infarction 195, 196</td>
</tr>
<tr>
<td>Treatment</td>
<td>acute coronary syndrome 201, 202</td>
</tr>
<tr>
<td></td>
<td>alcoholism 201</td>
</tr>
<tr>
<td></td>
<td>diabetes 201</td>
</tr>
</tbody>
</table>
Subject Index

guidelines 199
hypertension 200
myocardial infarction 201, 202
obesity 201
smoking cessation 201
statins 200
stress management 201
Cortisol, secretion regulation 317
Cushing's disease
epidemiology 300, 301
subclinical 323, 324
treatment 324
Cyclophosphamide, systemic lupus
erythematosus management 340
Dapoxetine, premature ejaculation
management 454
Dehydroepiandrosterone (DHEA)
androgen deficiency in women 319–322
synthesis 317
Dehydroepiandrosterone sulfate (DHEAS),
synthesis 317
Delayed ejaculation (DE)
deinition 454
epidemiology 454, 455
pathophysiology 455
treatment 455
Dense breast
histology 253
pathology 260
signaling pathways 260, 261
Depression
antidepressants, see specific drug classes
epidemiology 93
integrated model 97
pathogenesis
genetics 96
gonadal steroids 96, 97
physiological dimorphisms 95
psychosocial factors 95, 96
postpartum depression, hormonal
pathogenesis 96, 97
treatment 93–95
Desired drug reactions (DDRs), sex
differences 473, 474
Diabetes
 coronary heart disease
management 201
risks 194, 195
fetal programming 43
gestational diabetes 280, 281
stroke risk factor 135, 136
type 1 disease
clinical features 269, 270
complications 270
diagnosis 270
epidemiology 268, 269
gender issues
management of disease 270, 271
pregnancy 271
sex hormone concentrations 272
pathophysiology 269
type 2 disease
comorbidity 279, 280
diagnosis 274, 275
epidemiology 273, 274
macrovascular complications by
gender 275–277
microvascular complications 277, 278
reproduction effects 280
risk factors in relation to gender 275
treatment and prognosis, sex
disparities 278, 279
Dialysis, see Chronic kidney disease
Digoxin, heart failure management 224
Disorders of sex development, see Ambiguous
genitalia
Distribution, sex differences for drugs 476
Diuretics 219
L-Dopa, sex differences in Parkinson's disease
treatment
Dutch Famine 43
Dyspareunia
men 455
women 442
Electrostimulation, overactive bladder
management 436
Elimination, sex differences for drugs 477
End-stage renal disease, see Chronic kidney
disease
Epigenetics, see Cancer; Fetal programming
Epilepsy
antiepileptic drugs and gender differences
adverse effects 153, 154
bone health 156
menopause 155
pharmacokinetics 154, 155
catamenial epilepsy 153
mortality 152
sex hormones and susceptibility 153
Eplerenone, heart failure management 224
Epstein-Barr virus (EBV), multiple sclerosis risks 147

Erectile dysfunction (ED)
- epidemiology 447, 448
- hormonal factors 449, 450
- neurological factors 450
- pathophysiology 448
- psychological factors 450
- treatment 450, 451
- vascular factors 448, 449

Estrogen
- bone mass regulation 311, 312
- migraine role 158, 159
- multiple sclerosis protection 149
- Parkinson's disease neuroprotection 128, 129
- systemic lupus erythematosus mediation 337
- uric acid, response of serum level 382, 383

Estrogen receptor (ER)
- benign prostatic hyperplasia role 257
- ER-β
  - immune system role 261, 262
  - lymphoangioleiomyomatosis role 259, 260
  - signaling 254
- immune disease modulation 261
- isoforms and proliferation effects 252
- knockout mice 253, 254, 261
- liver X receptor crosstalk 256

Female genital mutilation (FGM) 99, 100, 104, 108

Fetal alcohol spectrum disorders (FASD) 39

Fetal programming
- brain sexual dimorphism 41, 42
- exogenous effects on intrauterine environment 39, 40
- intelligence 46, 47
- maternal nutrition effects on adult diseases 43, 44
- maternal stress effects 44–46
- obstetrics implications 49, 50
- overview 37, 38
- predictive adaptive response 46
- sex steroid exposure and physical, cognitive, and behavioral outcomes 42, 43
- sexual orientation 47–48
- species survival strategy 48
- testosterone and intrauterine effects 40, 41
- twin studies 48

Fibromyalgia
- classification 164, 165
- gender differences 165–167
- overview 164
- pathophysiology 165, 166
- treatment 167

Finasteride, benign prostatic hyperplasia
- management 430, 431

Gall bladder cancer, nuclear receptor signaling 262

Genitalia, see Ambiguous genitalia; Female genital mutilation

Geriatrics, see Aging; Multimorbidity

Gestational diabetes, see Pregnancy

Gonadal dysgenesis, see Ambiguous genitalia

Gonadotropin-releasing hormone (GnRH), agonists for systemic lupus erythematosus management 340

Gout
- clinical features 383
- diagnosis 383
- epidemiology 380, 381
- pathogenesis
  - hormone effects on serum urate 382, 383
  - monosodium urate crystal-induced inflammation 383
  - uric acid homeostasis 381, 383
- treatment 383

Growth hormone (GH)
- hypersecretion
  - etiology 299
  - prolactinoma 296
- physiology 298, 299

Headache, see also Migraine
- classification and causes 157
- cluster headache
  - epidemiology 161
  - gender effects 161
  - migraine comorbidity 160, 161
  - pathogenesis 161
- secondary headache 162
- tension-type headache and migraine comorbidity 160

Healthcare
- gender effects 14–16
- utilization by lesbian, gay, bisexual and transgender population 11, 12
Heart failure
- definition 213
- diagnosis 217, 218
- epidemiology 213–215
- etiology 215, 216
- pathogenesis 217
- prognosis 216, 217
- treatment
  - exercise 226, 227
  - implantable cardiac defibrillator 225, 226
- pharmacotherapy
  - angiotensin-converting enzyme inhibitors 220
  - angiotensin receptor blockers 220–222
  - beta-blockers 222–224
  - digoxin 224
  - diuretics 219
  - eplerenone 224
  - overview 218, 219
  - spironolactone 224

Hermaphroditism 57

Hirsutism
- etiology 322
- treatment 322, 323

Historical perspective
- gender-specific medicine 5–7
- gender thought evolution 1–4

Hormone replacement therapy
- coronary heart disease studies
  - primary prevention 207–209
  - recommendations 209, 210
  - secondary prevention 209
- dense breast 260
- rheumatoid arthritis management 355
- stroke risks 137
- systemic lupus erythematosus management 340, 341

Human immunodeficiency virus (HIV)
- epidemiology
  - female susceptibility 389, 390
  - frequency of infection 388, 389
  - sexual minority susceptibility 390
  - morbidity 390
  - prevention and health policy 394
  - reproduction 393, 394
  - treatment and gender considerations
    - adverse effects 392
    - drug-drug interactions 393
    - health care access 391
- pharmacokinetics 391, 392
- tuberculosis comorbidity 415
- viral load differences by gender 390

Hypercalcemia
- causes 308, 309
- lithium induction 310

Hyperparathyroidism, see Parathyroid hormone

Hyperprolactinemia
- diagnosis 295, 296, 298
- erectile dysfunction comorbidity 449, 450
- etiology 297
- prolactinoma 296

Hypertension
- coronary heart disease
  - management 200
  - risks 194
- endocrine hypertension 325
- stroke
  - management in prevention 142
  - risks 134

Hyperthyroidism
- subclinical hyperthyroidism 302
- thyrotoxicosis 301, 302

Hypnotherapy, irritable bowel syndrome management 176, 180

Hypoactive sexual desire, see Sexual dysfunction

Hypothyroidism
- clinical features 303
- etiology 303, 304
- progression 303
- subclinical hypothyroidism 303, 305, 306
- treatment 304, 305

Implantable cardiac defibrillator (ICD)
- heart failure management 225, 226
- sudden cardiac death prevention 234

Inflammatory bowel disease, arthritis 369

Insulin-like growth factor-1 (IGF-1)
- aging effects 299
- growth hormone hypersecretion
  - effects 299, 300
  - physiology 298

Intelligence, fetal programming 46, 47

International Rescue Committee, violence against women reduction 120, 121

Intersex, see Ambiguous genitalia; Lesbian, gay, bisexual and transgender
Irritable bowel syndrome (IBS)
  comorbidity 176
  diagnosis 174
  differential diagnosis 176, 177
  epidemiology 173
  menstrual cycle and hormonal effects 175
  postinfectious disease 175
  prospects for study 181
  treatment
    cognitive behavioral therapy 176, 180
    hypnotherapy 176, 180
    lifestyle changes 177
    mindfulness-based stress reduction 180
  pain management
    antispasmodics 179
    tricyclic antidepressants 179
    patient-physician relationship 181
  pharmacotherapy for syndrome with
    constipation
      lubiprostone 178
      tegaserod 178
  pharmacotherapy for syndrome with
    diarrhea
    alosetron 179
    loperamide 178, 179
    probiotics 180
    rifaximin 179, 180
  types 174, 175

Kaposi’s sarcoma (KS), human immunodeficiency virus outcomes by gender 390

Klinefelter syndrome 59, 88, 338

Leiomyoma, histology 253

Lesbian, gay, bisexual and transgender (LGBT), see also Transsexualism
  aging 14
  definition 10
  fetal programming of sexual orientation 47–49
  human immunodeficiency virus susceptibility 390
  morbidity 13, 14
  resource allocation, empowerment and equity 14–16

Libido, see Sexual dysfunction

Life cycle model, stress 71, 72

Lithium, hypercalcemia induction 310

Liver X receptor (LXR)
  benign prostatic hyperplasia role 257, 258
  estrogen receptor crosstalk 256
  knockout mice 253, 254, 257, 258
  signaling 256

Long QT syndrome (LQTS)
  gender differences 233
  sex hormone studies 231

Loperamide, irritable bowel syndrome management 178, 179

Lower urinary tract symptoms (LUTS), see also Benign prostatic hyperplasia
  diagnosis 431
  etiology 433
  overactive bladder 433–436
  overview 428, 429
  prevalence 429

Lubiprostone, irritable bowel syndrome management 178

Lymphoangioleiomyomatosis (LAM)
  histology 253, 258, 259
  nuclear receptors 259, 260
  signaling pathways 260, 261

Malaria
  diagnosis 397, 398
  epidemiology 396
  gendering of research 403
  health care access and treatment compliance 400
  pathogenesis 397
  prevention 400–403
  risk factors 399, 400
  symptoms 397
  transmission 396
  treatment 398, 399

Measles
  epidemiology 405, 406
  eradication 406, 407, 412
  prospects for study 412
  transmission model of severe disease 407–410
  vaccination and sex differences in response 410–412

Menopause
  epilepsy studies 155
  hormone therapy, see Hormone replacement therapy

Menstrual cycle
  migraine triggering 158, 159
  Parkinson’s disease effects 129

Metabolism, sex differences for drugs 476

Methotrexate, rheumatoid arthritis management 355
Micropenis, see Ambiguous genitalia
Migraine
  comorbidity
    cluster headache 160, 161
    tension-type headache 160
epidemiology 158
gender effects 158
sex hormone studies 158, 159
stroke risks 137
treatment in women 159, 160
Mindfulness-based stress reduction, irritable bowel syndrome management 180
Monoamine oxidase inhibitors (MAOIs)
  gene polymorphisms in depression 96
  sex differences 94
Morbidity, see also Multimorbidity
  female disadvantage 483–486
  lesbian, gay, bisexual and transgender population 13, 14
  mortality paradox 12, 13, 482–486
Morphine, sex differences in response 183–185
Mortality, see also specific diseases
  morbidity paradox 12, 13
  female advantage 482, 483
  transsexualism 333
Müllerian inhibiting substance (MIS)
  ambiguous genitalia 60
  autism role 89
  sex determination 54
Multimorbidity
  consequences 491
  definition 489, 490
  gender differences 491–493
  prevalence 490
  prospects for study 493
  risk factors 490, 491
Multiple endocrine neoplasia type 1 (MEN1), gender differences 301
Multiple sclerosis (MS)
  clinical features 144, 145
  epidemiology 143
  estrogen protection 149
  gene-environment interactions 147, 148
  genetics 145, 146
  pathogenesis 144
  pregnancy 149
  risk factors
    environmental factors 146, 147
    female predominance 148
    fertility rates in parents 149, 150
    treatment 150, 151
Myocardial infarction, see Coronary heart disease
Nicotine, see Smoking
Obesity
  body composition 284, 285
  body shape 283, 284
  comorbidity, females 288
  coronary heart disease management 201
  risks 195
  fetal programming 44
  geographic distribution 285, 286
  osteoarthritis risk 362–364
  primary care, gender differences 287, 288
  secular trends in body weight 286, 287
  stroke risks 135
  treatment, gender differences 288, 289
Obstructive sleep apnea, stroke risks 136
Olanzapine, sex differences in pharmacokinetics 468
Ondansetron, sex differences in pharmacokinetics 468
Oral contraceptives
  spondyloarthritis effects 375
  stroke risks 137
  systemic lupus erythematosus management 339, 340
Osteoarthritis, sexual dimorphism
  biomarkers of connective tissue activity 360
  joint conformation 359, 360
  pain, functioning, and injury 360
  pathogenesis
    obesity 362–364
    sex hormones 364, 365
  prevalence 358, 359
  treatment outcomes 365
Osteomalacia, vitamin D deficiency 310, 311
Osteoporosis
  causes 314
  clinical features 313
  diagnosis 312, 313
  fracture incidence 314
  pathology 312–315
  seronegative spondyloarthritis 372, 373
  treatment 315
Overactive bladder
  epidemiology 433, 434
  etiology 434
  treatment 434–436
prospects for study 356
treatment
  hormone replacement therapy 355
  methotrexate 355
  overview 349, 350, 355
  response 355
Rifampicin, sex differences in metabolism 475
Rifaximin, irritable bowel syndrome
  management 179, 180
Rosiglitazone, fracture risk 469
Selective serotonin reuptake inhibitors (SSRIs)
  premature ejaculation management 454
  sex differences 94
Serotonin transporter (SERT), fibromyalgia
  studies 166
Sex, versus gender 5–7
Sex determination, biology 38, 39, 52–54
Sex hormone-binding globulin (SHBG),
  diabetes type I levels 271
Sex ratio at birth (SRB)
  Caribbean 28
  Caucus region 26
  China 18–20, 23
  demographic effect 29–31
  India 25–27
  Latin America 28
  Middle East 27
  social implications 32, 33
  South Korea 23, 24
  United Kingdom 28, 29
  United States 28, 29
  Vietnam 24, 25
Sex-selective abortion, see also Sex ratio at
  birth
  China demographics 18–20
  demographic effect 29–31
  parity-specific imbalance and
drivers 20–25
  prospects 34
  social implications 32, 33
Sexual dysfunction
  men
    delayed ejaculation
      definition 454
      epidemiology 454, 455
      pathophysiology 455
      treatment 455
    dyspareunia 455
    erectile dysfunction
      epidemiology 447, 448
  hormonal factors 449, 450
  neurological factors 450
  pathophysiology 448
  psychological factors 450
  treatment 450, 451
  vascular factors 448, 449
  hypoactive sexual desire
    definition 451
    epidemiology 451
    pathophysiology 451, 452
    treatment 452
  overview 446, 447
  premature ejaculation
    definition 452
    drug induction 453
    endocrine factors 453
    epidemiology 452
    genetics 453
    pathophysiology 452
    psychological factors 453, 454
    treatment 454
  urological factors 453
women
  classification of dysfunction 439, 440
  concurrence of types 443, 444
  dyspareunia 442
  etiology 440
  overview 438, 439
  persistent genital arousal disorder 441,
  442
  prevalence 442, 443
  risk factors 444
  sexual arousal dysfunction 441
  sexual interest and desire 441
  vaginismus 442
Sexual orientation, see Lesbian, gay, bisexual
  and transgender
Sinus thrombosis, stroke risks 138
Smoking
  cessation 201
  coronary heart disease risks 193, 194
  fetal effects of nicotine 39, 40
  multiple sclerosis risks 147
  stroke risks 135
Spironolactone, heart failure management 224
Spondyloarthritis
  ankylosing spondylitis 367, 368
  clinical expression 371, 372
  functional outcomes 373
  genetics 370, 371
  gonadal hormone levels 374, 375
inflammatory bowel disease arthritis 369
mortality 373, 374
pregnancy 375–377
psoriatic arthritis 368, 369
radiographic changes 372
reactive arthritis 369
seronegative disease
  exogenous hormone effects 375
  osteoporosis 372, 373
sex ratio 369, 370
treatment response 374
SRY gene
  autism role 88
  sex determination 38, 53, 57
Statins
coronary heart disease management 200
sex differences in stroke prevention 141
Stress
  allostatic load
    age-specific sex differences 75–78
    evolution of sex and gender differences 78
    gender differences 78
    index 73–75
    prospects for study 80
    reduction 79
  arrhythmias and mediation 231
  cancer risks 249
  clinical aspects
    life cycle model 71, 72
    neurological regulation and allostatic load 71
  coronary heart disease
    management 201
    risks 195
    measurement 70, 71
  mindfulness-based stress reduction and irritable bowel syndrome
    management 180
  prenatal stress and fetal programming 44–46
  temporal cascade of allostatic load mediators 73
  treatment
    pharmacotherapy 79, 80
    resilience fostering 79
Stress testing, see Coronary heart disease
Stroke
  clinical evaluation 139, 140
  clinical presentation 138, 139
diagnosis 139
drug safety 343–345
disease activity 342, 343
definition 133
drainage 342
epidemiology 133, 134
hormone replacement therapy 137
hormone replacement therapy, see contraceptive therapy 340
hypertension drugs 142
osseous density 142
pregnancy
  antiphospholipid syndrome 345, 346
  complications 341, 342
  disease activity 342, 343
  drug safety 343–345
  fertility effects 341
  neonatal lupus 346, 347
  oral contraceptives 339, 340
  vaginal care 339, 340
  tamoxifen 337, 338
Sudden cardiac death (SCD), gender differences 233
Subarachnoid hemorrhage, see Stroke
Supraventricular tachyarrhythmias, see Arrhythmia
Systemic lupus erythematosus (SLE)
coronary heart disease
  clinical features 338, 339
diagnosis 339
drug safety 343–345
epidemiology 336, 337
fertility effects 341
neonatal lupus 346, 347
pregnancy
  antiphospholipid syndrome 345, 346
  complications 341, 342
  disease activity 342, 343
  drug safety 343–345
  fertility effects 341
  neonatal lupus 346, 347
  oral contraceptives 339, 340
  tamoxifen 337, 338
Tamoxifen, systemic lupus erythematosus management 337, 338
Tegasterod, irritable bowel syndrome management 178
Temporomandibular joint disorder (TMJD)
clinical features 169–171
diagnosis 171
epidemiology 169
gender differences 170, 171
prospects for study 171
treatment 171
Tension-type headache, see Headache
Testis-determining factor (TDF) 57
Testosterone
autism role 85, 86
deficiency in women 319–322
erectile dysfunction levels and therapy 449
intrauterine effects 40–43
maternal androgen sources 58, 59
Thuthuzela Care Centre (TCC), violence against women reduction 121
Thyroid cancer, sex differences 306
Thyroid hormone, see Hyperthyroidism; Hypothyroidism
Tobacco, see Smoking
Tolterodine tartrate, overactive bladder management 435
Torsades de pointes, drug induction 468, 469
Total knee replacement (TKR), sexual dimorphism in outcomes 365
Transforming growth factor-β (TGF-β), signaling in gonadal hormone regulation of stromal-epithelial growth 254–256
Transsexualism
clinical features 328, 329
diagnosis 328, 330, 331
epidemiology 329
etiology 329, 330
mortality 333
overview 327, 328
treatment
female-to-male transsexualism 331
male-to-female transsexualism 331, 332
outcomes 333
sex reassignment surgery 332, 333
Transurethral microwave thermotherapy (TUMT), benign prostatic hyperplasia management 432
Tricyclic antidepressants (TCAs)
irritable bowel syndrome management 179
sex differences 94
Trivers-Willard effect (TWE) 48
Tuberculosis, gender dynamics
active versus passive case detection 416–418
course of infection 418
diagnosis 418, 419
epidemiology 415, 418
human immunodeficiency virus comorbidity 415
importance of study 414, 415
regional variation 416
social consequences 422, 423
symptoms 149–422
treatment adherence 423
Turner syndrome 57
UNite to End Violence against Women 121
United Nations Trust Fund, violence against women reduction 119
Uric acid, see Gout
Vaginismus 442
V-Day, violence against women reduction 119, 120
Ventricular arrhythmias, see Arrhythmia
Verapamil, sex differences in metabolism 475
Vertebral artery dissection, stroke risks 136
Violence against women
causes
armed conflict 108
discrimination against women 106
legal system 107
consequences
health consequences 106
poverty 105
definition 103
East Africa
access to services for victims 115
causes 111, 112
economic pillar 113
forms of violence 109–111
mitigation of violence 118, 119
overview 108, 109
political pillar 113
stranger violence 110
male perpetrators 102, 103
neurohormonal mechanisms for regulated aggression 101, 102
overview 99–101
reduction
empowerment 116, 117
laws, policies, and budgets 117, 118
local and national actions 116
multispectral partnerships 118
programs and initiatives 119–124
social norm changing 117
unconventional ally enlistment 118

types
armed conflict 105
child marriage 104, 105
female genital mutilation 104
intimate partner perpetration 104

rape 104
victim rights 113–115

Vitamin D
multiple sclerosis studies 146, 147
osteomalacia and deficiency 310, 311

Warburg effect, cancer 248
Warfarin, sex differences in stroke prevention 141
Women's Health and Action Research Center, violence against women reduction 122