

- MPTP (1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine), 1137
- MRI. *see* Magnetic resonance imaging (MRI).
- MRSA, community-associated, skin and soft tissue infections and, 885
- Mucinous carcinomas, 611
- Mucorales, pulmonary infiltrates caused by, 943-944
- Mucosa-associated lymphoid tissue (MALT), 521  
*Helicobacter pylori* and, 405, 522-523
- Mucosal defense, healing by enhancement of, 408-409
- Mucosal melanoma, 615
- Mucositis, radiation therapy-induced, 591
- Multidetector computed tomography (MDCT), in coronary artery disease, 93
- Multidrug-resistant pathogens, 916-917, 917t
- Multifocal atrial tachycardia, 123, 123f
- Multifocal disorders, indicating metabolic coma, 966t
- Multigated acquisition scanning (MUGA), 92-93
- Multiorgan failure, in severe sepsis, 846, 847f
- Multiple endocrine neoplasia (MEN) syndrome  
type I, gastrinoma in, 413-414
- Multiple endocrine neoplasia (MEN) syndrome  
type IIA, medullary thyroid carcinoma in, 640
- Multiple endocrine neoplasia type IIA/IIB,  
pheochromocytoma in, 650-651
- Multiple myeloma, 530-532  
international staging system for, 531t  
rheumatic manifestations of, 815  
skeletal demineralization in, 755
- Multiple-organ dysfunction syndrome, 263
- Multiple-organ system failure, 263
- Multiple sclerosis (MS), 1069-1074  
clinical presentation of, 1069-1070  
clinically isolated syndrome in, 1069  
definition of, 1069  
diagnosis of, 1070  
criteria for, 1070, 1070t  
evoked potentials in, 1070  
magnetic resonance imaging in, 1070, 1071f  
optical coherence tomography, 1070  
spinal fluid analysis in, 1070  
differential diagnosis of, 1070-1071, 1072t  
disease modifying medications for, 1073t  
epidemiology of, 1069  
pathology of, 1069  
prognosis of, 1074  
progressive, 1069  
relapsing remitting, 1070, 1072  
symptoms and management of, 1072t  
treatment of, 1071-1073
- Multiple sleep latency test (MSLT), 971
- Multiple system atrophy (MSA), 991, 1018
- Murine typhus, 843
- Murmurs, 31, 33-35  
in aortic coarctation, 70-71  
in aortic regurgitation, 79  
in aortic stenosis, 76-77  
in aortic valve stenosis, 72-73  
in atrial septal defects, 68  
in atrioventricular septal defects, 70  
categories of, 34, 35t  
grading system for, 33t
- Murmurs (*Continued*)  
in hypertrophic cardiomyopathy, 142  
innocent, 31, 34  
maneuvers affecting, 31t  
in mitral regurgitation, 83  
in patent ductus arteriosus, 71  
physiologic, 31  
in pulmonary arterial hypertension, 164  
in pulmonary valve disease, 85  
in pulmonary valve stenosis, 72  
shape of, 34, 34f  
in tetralogy of Fallot, 73  
in tricuspid valve disease, 84  
venous hums, 35  
in ventricular septal defects, 69
- Murphy's sign, 472
- Muscle  
cardiac, 18-21, 18f  
disorders of, 1015  
organization and structure of, 1087, 1088f
- Muscle biopsy, in peripheral neuropathy, 1083
- Muscle-contraction headache, 997
- Muscle diseases, 1087-1097
- Musculoskeletal disorders  
evaluation of patient with, 766-769  
biopsy in, 769  
laboratory testing for, 768-769, 768t  
musculoskeletal history and examination of, 766-768, 766t-767t, 767f  
radiographic studies in, 769  
summary of, 769  
in HIV-infected patients, 941
- Musculoskeletal system  
anatomic structures of, 767f  
chronic kidney disease with, 365
- Musset's sign, in chronic severe regurgitation, 79
- Mutations, 6  
harmful, 7  
molecular basis of, 6, 11t  
types of, 7t  
variability in clinical expression of, 11-12  
environmental factors of, 12
- Myasthenia gravis, 1098-1099, 1099t  
thymomas with, 251
- Mycobacterium avium* complex, regional  
lymphadenopathy caused by, 844
- Mycobacterium avium-intracellulare* (MAI)  
infection, 931
- Mycobacterium leprae*, skin and soft tissue infection  
from, 887
- Mycobacterium marinum*, skin and soft tissue  
infection from, 887
- Mycobacterium scrofulaceum*, regional  
lymphadenopathy caused by, 844
- Mycobacterium tuberculosis*, 873
- Mycobacterium tuberculosis* infection, 256-257, 256.  
elf  
co-infection with HIV, 258  
prophylaxis for, 257t  
resistance of, 257
- Mycophenolate mofetil, 370
- Mycophenolic acid, 370
- Mycoplasma pneumoniae*, hemolytic anemia, 509
- Mycotic aneurysms, 865
- Myelodysplastic syndrome, 484-488  
clinical presentation, 485  
definition and epidemiology, 484  
diagnosis and differential diagnosis of, 485  
pathology, 484-485  
prognosis of, 487-488, 487t  
treatment of, 485-487  
immunosuppressive therapy as, 486  
lenalidomide as, 487  
stem cell transplantation as, 486  
targeted therapeutic agents as, 486-487  
transfusions and growth factors as, 485-486  
World Health Organization classification of, 486t
- Myelofibrosis  
primary, 492-493, 492t  
thrombocytopenia and, 549  
 unsuspected, 492.e1f
- Myeloid leukemia, acute, 496-499, 496t, 498t
- Myelomeningocele (MMC), 1026
- Myeloperoxidase  
antibodies against, 233  
of neutrophils, 516
- Myelophthisis, 517
- Myeloproliferative diseases (MPDs), 466, 501  
chronic, 489
- Myeloproliferative neoplasms (MPNs), 489  
classification of, 489t
- Myelosuppressive agent, in essential  
thrombocytopenia, 491-492
- Myocardial disease, 139-144  
cardiomyopathies, 140-144  
myocarditis, 139-140
- Myocardial infarction  
atherosclerotic plaque and, 89  
cardiac catheterization and noninvasive testing  
for, 108  
complications of, 103-108, 106t  
electrocardiographic monitoring of, 108  
and left bundle branch block, 40-41  
mechanical complications of, 107  
monitoring for, in noncardiac surgery in patient  
with, 277  
nausea and vomiting in, 26  
non-ST elevation. *see* Non-ST elevation  
myocardial infarction (NSTEMI)  
in older adults, 1107t  
patient education and rehabilitation for, 109  
postoperative, 155  
predictors of sudden cardiac death after, 132t  
risk stratification after, 108  
secondary prevention of, 108-109  
ST elevation. *see* ST elevation myocardial  
infarction (STEMI)  
ST segment and T wave abnormalities in, 41, 43f, 44t  
thromboembolic complications of, 107-108
- Myocardial ischemia, 89  
cocaine-induced, 1135, 1135f  
from obstructive CAD, 23-24  
ST segment and T wave abnormalities, 41, 43f, 44t  
stress testing in, 42-44
- Myocardial oxygen consumption, 20
- Myocardial perfusion, imaging for, 47-48, 48f