

- Infarction(s) (*Continued*)  
 reversible vs. irreversible, 541f, 544t, 546f  
 right ventricular, 568  
 subendocardial, 543  
 and thrombosis, 123  
 transmural, 540, 543  
 triphenyltetrazolium chloride in, 544-545, 544f  
 septic, 130
- Infection(s)  
 acute (transient), 354-357  
 bacterial, 362-385, 363t  
 bleeding disorders due to, 657  
 central nervous system, 1271-1280, 1272t  
 abscess  
 brain, 1273-1274  
 extradural, 1274  
 acute focal suppurative, 1273-1274  
 acute meningitis as, 1272-1273  
 meningoencephalitis as  
 chronic bacterial, 1274-1275  
 fungal, 1279  
 viral, 1275-1279  
 protozoal, 1279-1280  
 subdural empyema as, 1274  
 emphysema, 676  
 of female genital tract, 992-995  
 fetal, 457  
 fungal, 385-390  
 host defenses against, 345  
 host resistance to, vitamin A in, 437  
 inflammation due to  
 acute, 71-72  
 chronic, 93  
 intrauterine, 456  
 involving the lower and upper genital tract, 994-995  
 of lower genital tract, 993-994  
 and malnutrition, 433  
 of oral cavity, 729-730  
 parasitic, 390-400  
 in people with immunodeficiencies, 347-348  
 perinatal, 459-461  
 skin disorders due to, 1175-1178  
 impetigo as, 1176-1177  
 molluscum contagiosum as, 1175  
 superficial fungal, 1177-1178, 1178b  
 verrucae (warts), 1175  
 spectrum of inflammatory responses to, 351-353, 352t  
 staphylococcal, 362-364, 363f, 364f  
 streptococcal and enterococcal, 364-365  
 tissue repair and, 106  
 transient, 354-357  
 urinary tract, 899, 930-935, 930f  
 viral, 354-362, 354t
- Infectious agent(s)  
 of cancer, 276  
 cell injury due to, 39  
 special techniques for diagnosing, 353-354, 354t  
 vertical transmission of, 344
- Infectious disease(s), 341-402  
 bacterial, 362-385, 363t  
 emerging, 400-401, 400t, 405  
 fungal, 385-390  
 in Global Burden of Disease, 405  
 microbial pathogenesis, 341-353  
 microorganisms cause disease, 342-345, 350b-351b  
 parasitic, 390-400  
 viral, 354-362, 354t
- Infectious neuropathies, 1231-1232  
 Infectious rhinitis, 735  
 Infectious vasculitis, 513  
 cerebral infarction due to, 1266  
 Infective endocarditis, 559-561, 560b, 560f, 561t  
 Inferior vena cava syndrome, 515  
 Infiltrative ophthalmopathy, 1089  
 Inflammation, 69-111  
 acute, 73-93  
 cardinal signs of, 71  
 components of, 73  
 defined, 71  
 due to infections, 71-72  
 leukocytes in  
 clearance of offending agents, 78-82  
 other functional responses of  
 activated, 82  
 recruitment to sites of inflammation, 75-78, 75f, 77b-78b  
 removal of offending agents, 82  
 tissue injury mediated by, 81-82  
 morphologic patterns of, 90-91  
 outcomes of, 92-93, 92f  
 reactions of blood vessels in, 73-75  
 stimuli for, 71-72  
 summary of, 93  
 termination of, 82  
 vascular reactions in, 75b  
 in Alzheimer disease, 1289  
 anemia of chronic disease due to, 652  
 in asthma, 680  
 of bladder, 962-963, 963f  
 causes of, 71-72  
 chronic, 93-98, 353  
 causes of, 93  
 cells and mediators of, 94-97  
 defined, 71  
 macrophages in, 94-96  
 morphological features of, 93-94, 94f  
 other cells in, 96-97  
 progression to, 93  
 and scarring, 353, 353f  
 consequences of, 70  
 cytokines in, 86f, 87f  
 defined, 69-70  
 fibrinous, 90-91, 91f  
 general features of, 72b-73b  
 granulomatous, 97-98, 352-353, 353f  
 historical highlights of, 71  
 in innate immunity, 188  
 local and systemic, 70  
 macrophages in, chronic, 95f  
 mediators of, 70-71, 82-90, 83t  
 actions of, 90b  
 cell-derived, 82-83  
 arachidonic acid metabolites, 83-86  
 cytokines and chemokines as, 86-88  
 neuropeptides, 89-90  
 nitric oxide as, 80  
 platelet-activating factor as, 89  
 reactive oxygen species as, 79-80  
 vasoactive amines (histamine and serotonin), 83  
 plasma protein-derived  
 complement system as, 88-89  
 kinins, 89  
 products of coagulation as, 89  
 mononuclear, 352-353, 353f  
 overview of, 69-72  
 of penis, 970  
 of prostate, 981-982
- Inflammation (*Continued*)  
 purulent (suppurative), 91, 91f, 352, 352f  
 recognition of microbes and damaged cells in, 72  
 and repair of damaged tissues, 100  
 serous, 90, 90f  
 systemic effects of, 99-100, 100b  
 termination of, 71  
 of testis and epididymis, 973-974, 974f  
 ulcers due to, 91, 92f  
 of ureters, 960, 960f  
 of urethra, 969
- Inflammatory bowel disease, 209t  
 Inflammatory carcinoma, of breast, 1067  
 Inflammatory dermatoses, 1167b  
 acute, 1162-1164  
 eczematous dermatitis, 1163  
 erythema multiforme as, 1164  
 urticaria, 1162  
 chronic, 1165-1166  
 lichen planus as, 1166  
 psoriasis as, 1165  
 seborrheic dermatitis as, 1166
- Inflammatory disorders, of breast, 1046-1048, 1048b  
 duct ectasia as, 1046-1047, 1047f  
 fat necrosis as, 1047  
 lymphocytic mastopathy as, 1047  
 mastitis as  
 acute, 1046  
 granulomatous, 1047-1048  
 periductal, 1046
- Inflammatory lymphadenitis, 74-75  
 Inflammatory myopathies, 231, 1238-1240  
 treatment of, 1240
- Inflammatory neuropathies, 1230-1231  
 Inflammatory reactions  
 diseases caused by, 71t  
 nature of leukocyte infiltrates in, 78f  
 role of mediators in, 90t
- Inflammatory response  
 components of, 70, 70f  
 in septic shock, 131-132
- Inherited genetic alterations, indications for analysis of, 174-175  
 Inherited metabolic liver disease, 852b  
 Inherited peripheral neuropathies, 1234-1235  
 Inhibin, in granulosa cell tumors, 1032-1033  
 Inhibitors of apoptosis protein (IAP), 302  
 Initial innate immune response, 215  
 Initiation, of chemical carcinogenesis, 322, 322f, 323t  
*INK4a*, in osteosarcoma, 1199  
 Inlet patch, 750-751  
 Innate immunity, 71, 186-188, 186f  
 components of, 186-187  
 defects in, 237-238, 237t  
 reactions of, 188
- Innate lymphoid cells (ILCs), 187, 193  
 Insecticides, as air pollutants, 688t  
 Insulin, 1105  
 elevated, levels of, 448  
 in energy balance, 444, 445f  
 in glucose homeostasis, 1107-1108, 1108f  
 regulation of, release, 1108  
 resistance, obesity in, 447  
 Insulin action, 1109  
 genetic defects in, 1113  
 target cell, 1109f  
 Insulin-like growth factor 1 (IGF-1), in cellular aging, 67  
 Insulin receptor, 1109