Most Common Conditions	Description, Epidemiology, and Risk Factors	Pathophysiology
Cerebral Palsy	• Most common physical disability in childhood worldwide: 2/1000 live births • Complicated birth, genetic, multiple birth pregnancy, in vitro fertilization, hypoxic brain injury, viral infection	• Different types of cerebral palsy associated with different areas of injury • Spasticity: most common symptom • Abnormal muscle architecture
Spina Bifida	• Folate deficiency, lack of prenatal care	• Neural Tube Defect • Myelomeningocele: most common type
Traumatic Brain Injury	• Bimodal Distribution: 0-2 years and 15-18 years • Abuse, accidents, risky behavior, falls, hyperactivity, electrolyte abnormalities, seizures	• Primary Injury: direct damage, axonal injury • Secondary Injury: Seizures, cerebral edema, hypoxia
Spinal Cord Injury	• Abuse, accidents, risky behavior, falls, hyperactivity, sports injuries, infections, cancer	• More likely to have complete injury • Complete: extensive hemorrhage, cord disruption • Incomplete: contusion, partial cord disruption
Down Syndrome	• Most common inherited genetic syndrome • Trisomy 21 • 1 in 691 births	• Complete trisomy of chromosome 21 due to nondisjunction during meiosis
Spinal Muscular Atrophy	• Autosomal Recessive • SMA-1: most common (60-70%)	• Lack a working SMN1 gene--affects motor neuron function
Duchenne and Becker Muscular Dystrophy	• X-linked recessive • Risk factor: born to female carrier	• Abnormal dystrophin gene: connection between the skeletal muscle membrane's dystrophin-associated complex and the actin filaments
Ehlers-Danlos Syndrome	• 1 in 5,000 births	• Genetic defects affecting collagen type I, III, IV • Classic, hypermobility, and vascular subtype most common
Juvenile Idiopathic Arthritis	• Genetic and environmental factors • HLA-A2 and HLA-B27 implicated in some cases • Most common chronic rheumatic disease in children • Distinctions in geography and ethnic groups • Younger age onset in Western Europe • Africa and Eastern Europe: higher rates	• Inflammatory Syndrome characterized by chronic synovial inflammation with B-Lymphocytes