

FIGURE 122-1 Muscle biopsies hematoxylin and eosin staining. **A**, Normal adult muscle medium power. Notice polygonal muscle fibers arranged in fascicles with blue staining nuclei on the periphery. A small arteriole is visible (*white arrow*). **B**, Duchenne muscular dystrophy low power. Note the variability in fiber size with rounding of fibers, increase in connective tissue, and fatty deposition. **C**, Centronuclear congenital myopathy. Notice variability in fiber size, large rounded fibers, and characteristic central nuclei in most fibers (*white arrow*). **D**, Dermatomyositis on low power. Notice the prominent perifascicular atrophy of fibers, with inflammatory infiltrates (*white arrow*).

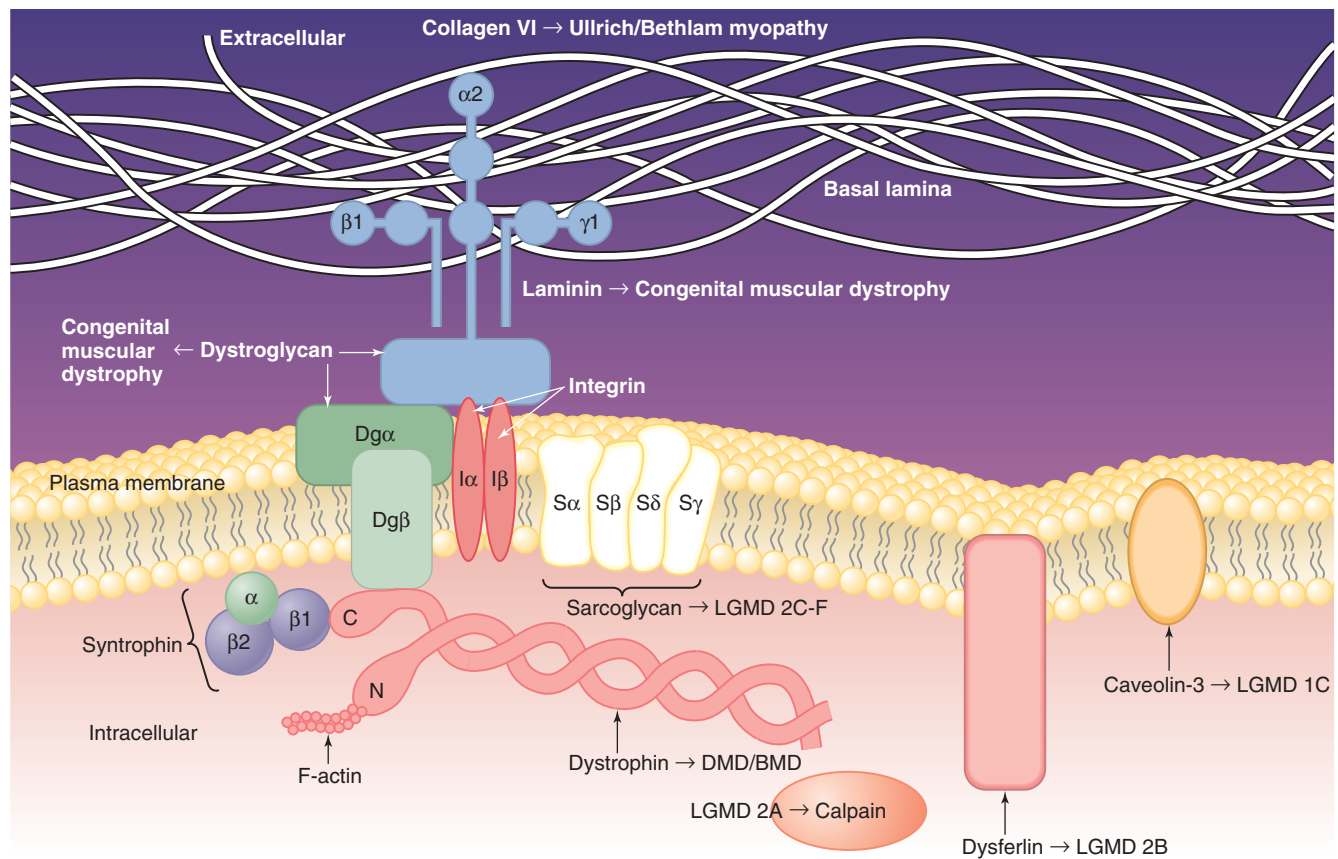


FIGURE 122-2 The dystrophin-glycoprotein complex. Muscle structural proteins connect the contractile apparatus to the internal cytoskeleton and the extracellular matrix. Mutations in proteins from the extracellular matrix to the anchoring proteins, which connect the extracellular matrix to the internal cytoskeleton to proteins, which attach the internal cytoskeleton to the contractile apparatus are all involved in the inherited muscular dystrophies and myopathies.