brain weight. Anoxia appears to play the most significant role in the pathologic state of brain damage, which is often secondary to other causative mechanisms.

There are a few exceptions. In some cases, the manifestation or etiology is related to anatomic areas. For example, CP associated with preterm birth is usually spastic diplegia caused by hypoxic infarction or hemorrhage with periventricular leukomalacia in the area adjacent to the lateral ventricles. The athetoid (extrapyramidal) type of CP is most likely to be associated with birth asphyxia but can also be caused by kernicterus and metabolic genetic disorders, such as mitochondrial disorders and glutaric aciduria (Johnston, 2016). Hemiplegic (hemiparetic) CP is often associated with a focal cerebral infarction (stroke) secondary to an intrauterine or perinatal thromboembolism, usually a result of maternal thrombosis or hereditary clotting disorder (Johnston, 2016). Cerebral hypoplasia and sometimes severe neonatal hypoglycemia are related to ataxic CP. Generalized cortical and cerebral atrophy often cause severe quadriparesis with cognitive impairment and microcephaly.

Clinical Classification

A revision of the Winter classification was proposed in 2005 to reflect the child's actual clinical problems and their severity, an assessment of the child's physical and quality-of-life status across time, and long-term support needs (Bax, Goldstein, Rosenbaum, et al, 2005; Nehring, 2010). The proposed new definition has four major dimensions of classification (Bax, Goldstein, Rosenbaum, et al, 2005):

Motor abnormalities: Nature and typology of the motor disorder; functional motor abilities

Associated impairments: Seizures; hearing or vision impairment; attentional, behavioral, communicative, or cognitive deficits; oral motor and speech function

Anatomic and radiologic findings: Anatomic distribution or parts of the body affected by motor impairments or limitations; radiologic findings sometimes including white matter lesions or brain anomaly noted on computed tomography (CT) or magnetic