

- Contracture deformities of hips, knees, and ankles
- Disuse atrophy
- Cardiomyopathy
- Obesity and at times undernutrition
- Respiratory compromise and cardiac failure

IQ, Intelligence quotient.

Obesity is a common complication that contributes to premature loss of ambulation. Children who have restricted opportunities for physical activity and who are bored easily consume calories in excess of their needs. This may be compounded by overfeeding by well-meaning family and friends. Proper dietary intake and a diversified recreational program help reduce the likelihood of obesity and enable children to maintain ambulation and functional independence for a longer time.

Mild to moderate cognitive impairment is commonly associated with MD. A deficiency of dystrophin isoforms in brain tissue causes cognitive and intellectual impairment ([Manzur, Kinali, and Muntoni, 2008](#)). The mean intelligence quotient (IQ) is approximately 20 points below normal, and frank mental deficit is present in 20% to 30% of these children. Verbal IQ is markedly low in boys with DMD, and emotional disturbance is more common than in other children with disabilities; however, children with DMD should be involved in early learning programs and eventually moved into regular classrooms as much as possible. Patients with Becker MD present later in life than those with DMD, but they often do not survive past the middle of the second decade, with few patients living into their 40s ([Sarnat, 2016b](#)).

Diagnostic Evaluation

The diagnosis of DMD is primarily established by blood polymerase chain reaction (PCR) for the dystrophin gene mutation