Stunting of linear growth, a highly prevalent problem in children of low- and middle-income countries, is the result of the exposure of the fetus and/or infant to nutritional deficiencies and infectious diseases [1]. Maternal undernutrition results in fetal growth restriction, assessed by the newborn’s weight for a given gestational age in comparison to a healthy reference population, and infectious diseases in pregnancy can result in preterm delivery [1]. Both of these conditions are important contributors to stunting in early childhood, albeit their relative contribution varies by world region. After birth, growth faltering may begin at 3–5 months of life and becomes more prominent at 6–18 months of age. During this time, the young child is exposed to many infectious diseases, such as diarrhea, which have an adverse effect on growth [1]. There is also increasing evidence that frequent exposure to enteric pathogens and toxins, such as mycotoxins, result in damage to the small intestine. The resulting condition, referred to as environmental enteric dysfunction, can cause growth failure, even in the absence of clinical symptoms [2]. Furthermore, complementary foods that the child receives in addition to breast milk are often inadequate in nutrients and energy, negatively affecting growth. Investigation of harmful exposure during pregnancy and the first 2 years of life, a critical period for growth and development, has attracted increased attention and led to a programmatic focus on this “1,000 days” in the life cycle [1]. Infection control and dietary interventions, including nutrition education and provision of food supplements during pregnancy for undernourished women, result in improvements in birth outcomes that position the newborn for healthier growth. Balanced energy-protein supplementation in an analysis of 9 controlled trials reduced small-for-gestational age births by one-third [3]. Consumption of multiple micronutrient tablets, compared to iron and folic acid supplementation, in pregnancy has been
shown to reduce small-for-gestational age births by about 10% in trials [3]. Interventions in the first 2 years of life include promotion of exclusive breastfeeding for the first 6 months of life and continued breastfeeding for at least the first 2 years. In food-secure populations, nutritional counseling to assure adequate complementary feeding has been found to have a benefit on linear growth (Table 1) [4]. In food-insecure areas, the provision of supplemental food to be given to the child has a benefit to prevent stunting [4]. Control of exposure to enteric pathogens and toxins is also important to prevent adverse effects on child growth and the development of stunting. Evidence shows that each of the interventions has a beneficial effect on the growth of the young child, yet that effect is modest in relation to the degree of stunting observed in these underprivileged populations [3, 5]. Nevertheless, rapid reduction in the prevalence of stunting in some low-income countries in recent years shows that substantial improvements are possible as a result of social and economic changes along with specific infection control and dietary interventions.

**References**


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