

ABM Clinical Protocol #16: Breastfeeding the Hypotonic Infant, Revision 2016

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A central goal of The Academy of Breastfeeding Medicine is the development of clinical protocols for managing common medical problems that may impact breastfeeding success. These protocols serve only as guidelines for the care of breastfeeding mothers and infants and do not delineate an exclusive course of treatment or serve as standards of medical care. Variations in treatment may be appropriate according to the needs of an individual patient.

Goal

TO PROMOTE, SUPPORT, and sustain breastfeeding in infants and young children with hypotonia.

Definition

Muscle tone, the muscle's resistance to passive stretch during resting state, is distinct from muscle strength and can be affected by many factors. Hypotonia, a condition of diminished muscle tone, may occur with or without muscle weakness. There are diverse etiologies including abnormalities of the central or peripheral nervous systems; neuromuscular junction; muscle, metabolic, endocrine, or nutritional disorders; connective tissue diseases; and chromosomal abnormalities. Perinatal hypoxia and hypotonic cerebral palsy may result in central hypotonia. In addition, benign congenital hypotonia, a diagnosis of exclusion, improves or disappears entirely with age.¹

Background

Hypotonic infants often have breastfeeding problems that result from abnormal or underdeveloped control of the oropharyngeal structures, contributing to an uncoordinated and/or weak suck, similar to those experienced by premature infants. Despite the many etiologies for hypotonia, little research has been specifically undertaken on the feeding problems of the hypotonic infant. However, interventions used for infants with important causes of hypotonia, such as Trisomy 21 (Down syndrome) and prematurity, can be applied to the care of these infants.

Trisomy 21, a genetic disorder where more than 90% of infants have hypotonia, shares many of the same feeding risks and complicating morbidities as other causes of hypotonia. Associated oral abnormalities characteristically include

malocclusion and a small mouth with a relatively large protruding tongue, which when coupled with hypotonia result in significant feeding difficulties in some of these children.²

In many countries premature infants, who may also have hypotonia-related difficulties, are often separated from their mothers shortly after birth, which can increase breastfeeding difficulties. Premature infants also struggle with small and underdeveloped oral structures and difficulties with suck-swallow coordination.³

The Academy of Breastfeeding Medicine, the American Academy of Pediatrics, the World Health Organization, and other international organizations recommend that all infants should be breastfed unless there is a medical contraindication.^{4,5} It is particularly important that infants and young children with hypotonia, including those with Trisomy 21, be breastfed because of their increased risk of morbidities associated with artificial feeding. For example, children with Trisomy 21 are more susceptible to ear, respiratory, and other infections, have developmental delay, and an increased incidence of other congenital anomalies such as heart and gastrointestinal malformations in addition to oral abnormalities and malocclusion.

A systematic review examining the effects of breastfeeding on these problems in a healthy population found that breastfeeding is protective against the development of ear and respiratory infections.^{6,7} It is also associated with a significantly lower risk of malocclusion (odds ratio 0.34; 95% confidence interval 0.24–0.48),⁸ which suggests that breastfeeding promotes oral motor strength, and, therefore, has potential benefit to children with Trisomy 21 and other causes of hypotonia.² Breastfeeding helps with normal mouth and tongue coordination.

Studies indicate that there is a positive neurocognitive advantage of breastfeeding,^{6,9} which is most pronounced in children with low birth weight or who were small for

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