FOOD MATTERS EARLY ON

Long before a baby takes a first gulp of milk, she or he will have received the benefits — or consequences — of the mother's food choices. “Adequate nutrition in women is one of the most crucial components of a healthy society,” notes Elizabeth Reifsnider of the University of Texas Health Science Center. Reifsnider points out that women who enter pregnancy undernourished or do not eat well during those nine months are more likely to have babies born prematurely, with low birth-weights or exhibiting retarded growth patterns.

These children are, in turn, at risk for a host of developmental problems. Sheila M. Innis of the University of British Columbia points out, “Preterm and low birth-weight infants are at increased risk for major handicaps, as well as below-average cognitive abilities and above-average behavioural problems at school age, even among infants without obvious neurological deficits.” From the increased prevalence of Attention Deficit Hyperactivity Disorder (ADHD) to deficits in language and memory skills, children born to poorly nourished mothers start off at risk.

IMPORTANCE OF BREASTFEEDING

Once baby emerges from the womb, parents must make decisions about how and what to feed the child. The by-now-familiar refrain that “breast is best” derives from many studies that show breastfeeding offers health benefits, such as reduced risk of infections and protection from cardiovascular disease, diabetes and obesity. However, the short — and long-term psychosocial benefits of breastfeeding are far less clear. One of the difficulties facing researchers is that women who choose not to breastfeed or who breastfeed for only a short time also tend to be younger, less well educated and poorer, all factors that have been associated with psychosocial problems in children, thus making it very difficult to determine which factors contribute most to which behaviours.

However, some short-term studies have shown that breastfeeding may improve the mother-baby relationship. It is critical for young babies to have a strong nurturing attachment to at least one caregiver, and breastfeeding may help promote this kind of bonding. Nursing mothers have reported lower levels of perceived stress, fewer negative moods and more positive feelings about their babies and their own parenting skills. Very young breastfed babies (a few weeks old) also showed improved alertness, better self-regulation, fewer abnormal reflexes and signs of withdrawal than their formula-fed counterparts.

In the long term, breastfed infants are less likely to develop weight problems or obesity, both of which are on the increase in children. Being overweight has a significant impact on a child’s self-esteem and overall psychosocial development as well as on his or her health. Studies have also shown a small, but statistically significant, difference in IQ between breastfed and formula-fed babies. The difference was even more pronounced for preterm babies who were breastfed, suggesting that certain compounds in breast milk, particularly what are known as long-chain fatty acids, have an even greater impact on babies born early.

GETTING FEEDING CUES RIGHT

However, whether parents choose breast milk, formula or some combination of the two, the feeding dynamic between baby and caregiver is important for the child’s long-term development. As Maureen Black of the University of Maryland School of Medicine notes, “Healthy feeding behaviour begins in infancy, as infants and their caregivers establish a partnership in which they recognize and interpret both verbal and non-verbal communication signals from one another. This reciprocal process forms a basis for the emotional bonding or attachment between infants and caregivers that is essential to healthy social functioning.”

ARE CARROTS GOOD FOR SELF-ESTEEM?

“Eat your carrots if you want to have good eyesight. Drink your milk for strong bones.” Many of the messages relating to food and children focus on the health benefits of good nutrition. “Eat well to grow well,” we tell our kids. Yet how do nutrition and food relate to other kinds of growth, such as social, emotional and cognitive growth? Researchers are now looking at how nutrition in general — not just what kids eat but how, when and under what circumstances — has an impact on their overall development.

by Liz Warwick
Unfortunately, babies who cannot or do not provide clear signals about hunger and satiety or do not respond to the establishment of predictable routines for eating, sleeping and playing are at risk for developing various problems, including feeding problems. Caregivers who do not “read” their baby’s hunger cues may overfeed their babies and put them at risk for weight problems or obesity later in life.

IDENTIFYING FEEDING PROBLEMS

The complex interaction between a baby and a caregiver, the types of food offered and under what conditions it is offered may result in feeding problems ranging from mild (occasional refusal to eat certain foods) to quite severe (when a child is malnourished and fails to thrive). Mealtime difficulties have been reported in 25 to 35% of normally developing children, but only 1 to 2% will exhibit severe feeding problems.

However, as researchers Cathleen C. Piazza and Tammy A. Carroll-Hernandez of the Marcus Institute note, “Long-term chronic food problems result in increased health problems for children, greater stress for the families, an increase in mental health problems in the family and a greater risk of developing eating disorders such as anorexia later in life.” Studies have also established a link between inadequate nutrition in the early years and an increased incidence of antisocial personality disorder, schizophrenia and affective psychosis. Thus, identification and treatment of these problems must be a priority. “Because children have feeding problems for a variety of reasons, treatment should focus on all of the components (biological, oral, motor, and psychological) that contribute to feeding problems and should be interdisciplinary,” they state.

PROVIDING NUTRITIONAL SUPPORT

Ensuring that children receive adequate nutrition, both prenatally and in the years from conception to five, is crucial. Laura E. Caufield of the Centre for Nutrition at Johns Hopkins University points out, “Women and children are still some of the most vulnerable members of society, and the need for special provisions will likely remain for many years to come.” She and other experts urge an integrated, life-course approach to program and services. A healthy, well-nourished woman is more likely to give birth to a healthy, well-nourished baby, so nutrition programs must target women not just during pregnancy but pre-conception, during lactation and between pregnancies. Then, children need the best nutrition possible, especially in the early years when they are growing and developing rapidly.

Programs such as the Supplemental Nutrition Program for Women, Infants, and Children (WIC) in the United States, which provides food vouchers for low-income women and children, have been shown to improve birth outcomes in terms of prematurity and low birth-weight. The WIC program may also have contributed to a decline in anemia among poor children. However, more studies are needed to determine if WIC has had an impact on children’s overall development.

The interaction between nutrition and a child’s physical, social, emotional and cognitive growth is complex and as yet only beginning to be explored through rigorously designed studies. New programs and policies must be supported by the best research possible. However, concrete steps, such as encouraging and facilitating good nutrition for pregnant women, promoting breastfeeding and helping caregivers understand both what constitutes a healthy diet and also what good eating habits are, will go a long way to ensuring that young children truly thrive.