

pressure increases. Respirations continue to be abdominal.

The digestive processes are fairly complete by the beginning of toddlerhood. The acidity of the gastric contents continues to increase and has a protective function because it is capable of destroying many types of bacteria. Stomach capacity increases to allow for the usual schedule of three meals a day.

One of the more prominent changes of the gastrointestinal system is the voluntary control of elimination. With complete myelination of the spinal cord, control of the anal and urethral sphincters is gradually achieved. The physiologic ability to control the sphincters probably occurs somewhere between 18 and 24 months old. Bladder capacity also increases considerably. By 14 to 18 months old, children are able to retain urine for up to 2 hours or longer.

Under conditions of moderate variation in temperature, the toddler rarely has the difficulties of young infants in maintaining body temperature. The capillaries are able to conserve core body temperature by constricting in response to cold and dilating in response to heat.

The defense mechanisms of the skin and blood, particularly phagocytosis, are much more efficient in toddlers than in infants. The production of antibodies is well established. However, many young children demonstrate a sudden increase in colds and minor infections when entering day care or preschool because of their exposure to new pathogens.

Rapid growth in neurobehavioral organization contributes to greater regularity of sleep–wake cycles, the diminishing of crying and unexplained fussiness, and the enhanced predictability in mood. Valuable stimulants of early brain development include the various interactions (talking, singing, and playing) between the toddler and caregivers. Adequate nutrition; protection from environmental toxins, such as lead, various drugs, and stress; and promotion of good health care all contribute to healthy brain growth.

## **Gross and Fine Motor Development**

The major gross motor skill during the toddler years is the development of locomotion. By 12 to 13 months old, toddlers walk alone using a wide stance for extra balance, and by 18 months old,