Progress report on Alzheimer’s disease
The Alzheimer’s Disease Education and Referral (ADEAR) Center of the National Institute on Aging (NIA) has published “Progress Report on Alzheimer’s Disease, 1996.” The report highlights recent research focused on identifying risk factors for Alzheimer’s.

- **Diagnosis and Nonsurgical Management of Osteoarthritis.** - book reviews
  By Kenneth D. Brandt. Pp. 225. Price, $17.95. Professional Communications, 400 Center Bay Dr., West Islip, NY 11795, 1996.This handbook fills a need for a well-designed, succinct, authoritative handbook on osteoarthritis for primary care physicians.

- **The Pocket Pediatrician.** - book reviews

- **Medicine for the Practicing Physician.** - book reviews
  Edited by J. Willis Hurst. Pp. 2141. Price, $125.00. Appleton & Lange, 107 Elm St., P.O. Box 120041, Stamford, CT 06912-0041, 1996. This 2,000-page text contains a comprehensive review of most of the clinical entities likely to be seen by a primary care physician.

- **Are we prescribing too many antibiotics?** - Editorial
  Although the relationship between antibiotic resistance and antibiotic use needs further clarification, one fact seems certain: physicians prescribe too many antibiotics. According to the National Ambulatory Medical Care Survey (NAMCS), 110 million people received antibiotics in 1995.

- **Changes in strategies for human papillomavirus genital disease.** - Editorial
  Knowledge about human papillomavirus (HPV)-associated disease has changed dramatically over the past decade. As Dr. Verdon notes in her article on HPV, major shifts have occurred in the understanding of the natural history, transmission, and prevention of HPV.

- **Mammography interpretation: the BI-RADS method.** - Breast Imaging Reporting and Data System - Editorial
  A wide variation in the quality of mammograms performed in the United States[1,2] led to the development of the mammography accreditation program of the American College of Radiology (ACR) in 1986.[3] This program established a process for the certification of mammography programs.

- **Resistant pneumococci: protecting patients through judicious use of antibiotics.** - includes patient information sheet
  The emergence of organisms resistant to antimicrobial agents has recently captured the attention of the press and the public. There is considerable concern about the possibility of a "post-antimicrobial era"[1] in which antimicrobial agents will no longer be effective.

- **Management of menopause.** - includes patient information sheet
  We live in an aging society. Since 1960, the older segment of our population has been growing more rapidly than the younger age groups. More than 30 million U.S. women are now at or beyond menopause; at least another 6 million women will reach this stage by 2000.

- **Major depression: selecting safe and effective drugs.** - includes patient information sheet
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Advising parents on toilet training

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Most parents have questions and concerns regarding the timing and method of toilet training. Problems with toilet training are potential sources of parental frustration and tension. Indeed, refusal to be toilet trained has been reported as a common precipitant of fatal child abuse. [1] To prevent parental frustration and possible physical or emotional harm to the child, physicians should offer anticipatory guidance and support to parents. This article presents a common sense approach to toilet training.

Historical Perspective

At the turn of the century, toilet training in North America was fairly permissive and based on a schedule set by the mother. [2] In the 1920s and 1930s, rigid schedules and early training were promoted. Since World War II, the "child-oriented" approach advocated by Brazelton has become popular. [3] This approach emphasizes the readiness of the child for determining the timing of toilet training. The introduction of disposable diapers has taken some of the urgency out of toilet training. If the current environmental concerns regarding disposable diapers lead to increased use of cloth diapers, some parents may seek to toilet train their children at a younger age.

Cultural Differences

The method and timing of toilet training are significantly influenced by social customs. Among the Digo people of East Africa, toilet training is usually complete by the time a child is six months of age. [4] The child spends the first few months of life exclusively in the company of the mother. The mother observes the infant for physical clues associated with the micturition and defecation reflexes and encourages the infant to void or defecate on the ground. The infant is placed in an appropriate posture for voiding or defecating and is rewarded for the desired response with feeding, close contact or other pleasurable activities. Obviously this method is impractical for North American families. Digo children are constantly attended by their mothers, whereas in our culture it is common for both parents to work outside the home.

Expectations

The majority of children will be toilet trained by two and one-half years of age. [3] In a study of 1,170 children in Boston, Brazelton [3] reported that 26 percent of the children were continent during the day by 24 months of age. This figure rose to 85 percent by 30 months of age and to 98 percent by 36 months. Several studies have shown that girls master toilet training earlier than boys. [2,3]

Nighttime continence may coincide with daytime continence or it may occur several months later. Bowel control is usually easier to accomplish than bladder control. Brazelton [3] found that 12 percent of children achieved bowel control first, 8 percent achieved bladder control first and 80 percent achieved them simultaneously.

Timing

There is no universally accepted or physiologically correct age to begin toilet training. In each particular society there is an age at which toilet training is considered appropriate, and the norm varies from culture to culture. It is important that both the child and the parents be ready for toilet training. If the child is not ready, the parents may become frustrated or disappointed over poor results, and the attempts may cause anxiety or hostility in the child. If the parents are not ready, the child may achieve continence independently or the process may be delayed until the parents are ready.

A child is usually ready to begin toilet training when he or she begins to signal that the diaper is wet or soiled or indicates a desire to void or defecate. Signals may include grabbing or holding the diaper or verbal clues appropriate to the child's stage of language development. It is also important that the child be able to walk unassisted to the bathroom and to understand simple verbal instructions such as "sit down".

The parents are ready when at least one parent is able to devote the time and emotional energy necessary to encourage the child on a daily basis for a minimum of three months. Consistency is important in toilet training.

Toilet training is complete when the child is continent for both stool and urine most of the time. This is the definition used by most parents. Some definitions set the end point of training at the point when a child initiates and completes the process independently, including raising and lowering the pants. This point may not be reached until the child is four years of age. The average time from initiation of toilet training to completion varies from three to six months. [5] Most parents underestimate the time required to complete toilet training. [6,7]

We recommended that parents begin looking for signs of readiness when the child is in the second year and is walking. The signs usually become evident around 18 months of age. No matter what age toilet training begins, most studies show that the majority of children will not develop control until after the age of two years. Toilet training may be initiated earlier, but only if the child is ready. It is important that the parents have realistic expectations regarding when toilet training will be complete. Parents should be counseled not to expect early results just because the process was initiated early.

Parental readiness may be prompted by events such as the anticipated birth of another child, moving to a new home or the mother's return to work. If the child is not ready, the readiness of the parents does not justify initiating the process.

Some parents should be discouraged from initiating toilet training early. Infants with evidence of psychomotor delay may experience delays in the attaining bladder and bowel control. If either parent is easily frustrated, does not appear supportive of the child during office visits or is impatient in dealing with the child, the physician should counsel the parents not to begin toilet training until after the child is two and one-half years old. These parents may not deal appropriately with delays in toilet training, and their own frustration may result in emotional or physical abuse of the child.

Method

The first step is to let the child become familiar with a potty chair. The potty chair should be placed in the child's regular environment. It does not necessarily need to be kept in the bathroom. The potty chair should be placed where it is convenient for the child, rather than for the parents. [8] A potty chair is preferable to an over-the-toilet seat at this stage of training. In multilevel homes, it may be advisable to have a potty chair on each level. The parents should allow the child to observe, touch and become familiar with the potty chair well in advance of suggesting its use.

The child should be made to feel comfortable in the bathroom. The parents should let the child come in the bathroom with them and observe the toileting process. The child should be allowed to see urine and stool in the toilet and to participate in flushing the toilet. Some children may be frightened by the flushing noise or the disappearance of the stool. [9] If so, the child should not participate in flushing until he or she is older.

After the child becomes comfortable with the potty chair, it should be introduced to the child as his or her chair. The child should not begin by sitting on the chair naked, since a cold seat may startle the child and decrease further interest. [3] The child should be allowed to leave the chair
The child should wear loose, easily removable pants. The transition from diapers to training pants may occur at this stage; however, training pants should not be used until there is a reasonable chance of success. The incentive value of the pants is lost when frequent accidents occur and the child becomes frustrated. No difference has been found between the use of cloth and disposable diapers on the age at which continence is achieved. [10]

Once this stage is reached, the parents should start to look for clues that the child needs to void or defecate. Most episodes can be anticipated. The majority of children will defecate at least once a day. As a consequence of the gastrocolic reflex, defecation usually occurs within an hour after major meals, most commonly breakfast. Similarly, most children will void within one hour of drinking a significant amount of fluid.

Most children have specific postures or behaviors that signal the need to void or defecate. Children may pause in what they are doing or their facial expression may change. [9] When a parent observes these signals, the child should be promptly taken to the potty chair and encouraged to void or defecate into the potty.

In the absence of any characteristic signals, the parent should take the child to the potty at regular intervals, as often as every one and one-half to two hours throughout the day. Encouraging the child to drink fluids will help ensure regular voiding. The parents should stay with the child while he or she is on the potty chair, patiently encouraging the desired result. If the child voids or defecates, the parent should praise the child. If the child does not, the parent should not express disappointment but rather should indicate that they will try again later. The bathroom should be a relaxed and comfortable place for the child. Talking with the child and reading books may help to keep the child relaxed and on the potty.

Once the child has mastered the use of a potty chair, the transition to the toilet is possible. An over-the-toilet seat and a step-up stool are helpful at this stage. Boys should be taught how to void while standing after they have learned to void while sitting.

Accidents are inevitable, and parents should be counseled to be sympathetic, supportive and patient. There is no role for punishment or coercion in toilet training. Sometimes children who resist toilet training are involved in a power struggle with their parents. If a child does not achieve dryness after three months of toilet training, the parents should discuss the situation with their physician. An organic cause for intermittent failure in toilet training is uncommon. The most likely explanation is that the child is not ready. If this is the case, efforts should be discontinued for several months before attempts are renewed. Motivational strategies such as a star chart or other rewards may help to reinforce positive behavior.

If after six months of trying, the parents express concern that the child is ready but still incontinent, encopresis or enuresis should be considered and possible causes investigated. [11,12] Most causes of enuresis can be identified by a complete history, thorough physical examination and urinalysis. [13] Blood tests and diagnostic imaging studies are only occasionally necessary. Constipation may interfere with bowel control and should be treated with a high-fiber diet, a reduction in dairy products or the use of laxatives, as appropriate. In some families, stresses such as the birth of a sibling or parental disharmony contribute to delayed toilet training or even regression. The child should be encouraged to void in response to the physiologic signal of the need to void. The child should be encouraged to void each morning on awakening, before leaving the house for any reason, before nap time, before bedtime and every one and one-half of two hours throughout the day. The child should be instructed not to wait until the last minute to go to the bathroom and to take the time to completely empty the bladder. These measures are important fundamentals and minimize the risk of urinary tract infection. [13,14]

REFERENCES


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The mastery of toilet training is an important developmental milestone for children and parents. This area of pediatric care presents a critical opportunity for anticipatory guidance; parents need guidance in recognizing signs of readiness, in helping their child achieve the necessary skills, and in addressing problems when they occur [1,2]. The approach to toilet training and common problems in toilet training are reviewed here. Advising parents on toilet training. Am Fam Physician 1991; 44:1263. Luxem M, Christophersen E. Behavioral toilet training in early childhood: research, practice, and implications.