Toileting Problems in Children
EDWARD R. CHRISTOPHERSEN, PhD

Although virtually all children are toilet trained at some age, how and when this is accomplished and under whose guidance varies widely. Most children achieve bowel and bladder control during the day by the age of 36 months. The central questions regarding toilet training for children of normal intelligence and with normal physical development are when to begin training, how to conduct the training, how to manage toileting refusal, and how to manage constipation and encopresis.

READINESS
Brazelton suggested both physiological and psychological readiness criteria. Physiological readiness criteria include reflex sphincter control (which can be elicited as early as 9 months) and myelination of pyramidal tracts (which is completed between 12 and 18 months). Psychological readiness criteria include:
• established motor milestones of sitting and walking,
• some verbal understanding,
• positive relationships with caregivers as evidenced in the desire to please,

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• identification with and imitation of parents and significant others, and
• the desire to be autonomous and master primitive impulses.
Brazelton suggests that readiness appears to peak for most children between 18 and 30 months of age.
Azrin and Fox suggested readiness criteria that include bladder control (the child should empty his or her bladder completely when voiding, stay dry for several hours, and indicate when he or she is about to urinate or defecate by facial expressions or posturing); physical readiness (the child should exhibit sufficient fine and gross motor coordination to be able to pick up objects easily and walk well without assistance); and instructional readiness (the child should have enough receptive language to enable him or her to continued on page 241

Dr Christophersen is Chief, Behavioral Pediatrics Section, Children's Mercy Hospital, Professor of Pediatrics, University of Missouri at Kansas City, School of Medicine, and Professor of Pediatrics, University of Kansas College of Health Sciences and Hospital, Kansas City, Kansas. Address reprint requests to Edward R. Christophersen, PhD, Behavioral Pediatrics Section, Children's Mercy Hospital, 2401 Gilham Rd, Kansas City, MO 64108.
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the components of the program are not as clearly specified as with the Azrin and Foxx method. In addition, some children may not possess sufficient motivation to enable them to progress at a reasonable pace. This may lead to impatience and coercive attempts by the parents to accelerate the pace of training.

The Azrin and Foxx method has been studied more systematically, but the few replications that have been done suggest that parent-mediated training may be problematic. The program is quite intensive and may be too demanding for some parents. If a child is generally noncompliant, compliance training may be indicated before training is begun. In the present author's experience, the Azrin and Foxx method has been successful with professional supervision. Children 24 months and older can realistically be trained within 3 days to 1 week and be accident free within 3 to 6 months. Parents frequently need specific instructions on how to deal with avoidance and tantrum behaviors exhibited by their children during training (e.g., using time-out).

Clinicians can minimize potential conflicts by giving parents advice about when to begin training (which frequently means the clinician encourages the parents to wait until the child is ready to be trained) and how to conduct training. The rapidity with which training is accomplished may not be as important to parents as how smoothly training proceeds. Like walking, it is fortunate that most children have been able to master toileting with minimal prompts and social reinforcement.

TOILETING REFUSAL

Although there is little in the literature on toileting refusal, the present author routinely encounters questions about it from parents. Typically, these children are about 3 years of age and the child will have regular bowel movements in their pants or in a diaper, but refuse to defecate in the toilet. One common variation of toileting refusal is the child in training pants who will ask for a diaper so that he or she can have a bowel movement. As soon as the child gets the diaper on, he or she usually goes into another room and promptly has a bowel movement. The only etiological factor that has been identified in toileting refusal is a history of hard stools. Often these children have tried
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to have a bowel movement on the adult size toilet and either were unable to do so or did so with some degree of discomfort.

There are several steps that parents can take to facilitate toilet training. First, parents should place two small steps on the sides of the toilet. The steps usually make it easier for the child to get up on the toilet, and they give the child a much more secure seat on the toilet. If the child learns to place his or her feet on the two steps, he or she will have much more leverage to use in defecating.

If the child is already refusing to defecate in the adult toilet, then the first step is to make certain that the child is having soft, formed stools. This can usually be accomplished over a period of a couple of weeks by suggesting changes in the child’s diet, medication, or both. The dietary changes would be to help to moisten and soften the stools by the addition of more dietary fiber, and, in cases where the child is consuming an excess of dairy products, reducing the amount of dairy products that are available to the child. The use of a small amount of mineral oil (one tablespoon), mixed in with 7 Up or Sprite, will often be all that is necessary to soften the stools.

If, after softening the child’s stools, the child is still reluctant to defecate in the toilet, the pediatrician can recommend the daily use of glycerine suppositories for a period of up to 1 week. The suppositories, when given just prior to a meal (the meal closest to when the child typically has bowel movements), help to produce a bowel movement. Several bowel movements in the toilet without discomfort are usually all that is necessary to encourage the child to begin using the toilet regularly. The softening of the child’s stools should always precede any attempts to get the child to use the toilet.

By treating toileting refusal at an early age, the pediatrician may be able to avoid later episodes of encopresis. Many parents of children who present with encopresis will report that their children had problems with constipation, toileting refusal, or both at an earlier age.

CONSTITUTION AND ENCOPRESIS

Approximately 3% of the general pediatric population are encopretic. About 80% of encopretic children seen by pediatricians present with a history of fecal retention and/or constipation. Although the etiology for this constipation/soiling cycle can rarely be accurately identified, several factors have a known causative role. These include:
- insufficient roughage or bulk,
- a bland diet, too high in dairy products and cheeses, which results in reduced colonic motility,
- insufficient oral intake of fluids, which allows the normal reabsorption of water from the colon to dehydrate the feces too much, or dehydration stemming from many activities that increase loss of fluids from sweating,
- fecal retention by the child,
- medications (such as some drugs used to control seizures and narcotics used to control pain) that may have a side effect of promoting constipation, and
- the child’s emotional state.

Any of these factors, singly or in combination, can result in constipation. If a child has these symptoms, he or she may associate them with similar symptoms at some earlier date that were followed by a painful or uncomfortable bowel movement. In an attempt to prevent a recurrence of the painful bowel movement, the child may voluntarily retain feces, thus exacerbating the condition.

Some children with chronic constipation will experience seepage around the hard stools producing what has been termed “paradoxical diarrhea,” that is, although the child is actually constipated or impacted, symptomatically, he or she acts as though suffering from diarrhea, producing numerous watery, foul-smelling stools each day. Occasionally, these bouts of paradoxical diarrhea will result in the passage of huge amounts of feces that can cause problems with the plumbing in the child’s domicile. A period of inactivity follows during which there is no fecal soiling until the colon gets distended again and the constipation returns, followed by the paradoxical diarrhea. Some parents will attempt to treat this type of diarrhea with over-the-counter antidiarrheal agents, an approach which, though well intentioned, will only further exacerbate the condition.

Davidson and his colleagues described what has come to be called the pediatric approach to constipation or encopresis. They recommend starting a child on a daily dose of mineral oil (which acts both as a stool softener and as a lubricant) and increasing the dosage until regular bowel functioning is established. To aid in the establishment of bowel functioning, Davidson also recommends cutting back (when indicated) on the amount of milk and milk products ingested and increasing the ingestion of fruits. They reported a high success rate (90%) with 119 pediatric patients placed on this regimen.

Levine and Bakow followed 110 encopretic children for 1 year. At first, the authors described formal intestinal function to the parents in an attempt to demystify the child’s presenting problem (this demys-
tification is described in detail by Levine\(^9\)). The parents were instructed to use enemas and Dulcolax suppositories in order to get the child's bowel well cleaned out. Then the children were started on a daily mineral oil regimen that was to last for at least 6 months. In addition, the children were asked to sit on the toilet for at least 10 minutes, twice each day. Seventy-eight percent of the patients fell into the two most successful outcome groups—either marked improvement or some improvement.

Wright\(^9\) and Wright and Walker\(^10\) described a slightly different approach designed to accomplish the same purpose: to establish normal bowel functioning. Wright recommends initially cleaning out any constipated or impacted stool, a high fiber diet is instituted, and a program to reward bowel movements in the toilet and to give mild punishment (eg, temporary loss of TV privileges) for toileting accidents is initiated.

Christoffersen and colleagues\(^11,12\) offer variations of Wright's procedure with more emphasis on dietary intake, increased fluid intake, and no punishment for soiling episodes beyond having the child clean out his or her own pants and cleaning off his or her own buttocks. In more recalcitrant cases, positive practice is recommended for soiling accidents.\(^2\) Recently, the present author has added even more emphasis on dietary intake by using a handout for parents that lists by brand name a number of high roughage foods and foods that have either a natural laxative effect (eg, honey and prunes) or a lubricating effect (eg, butter, fried foods, and margarine). They also now recommend encouraging the child to ingest six to eight glasses of fluid daily (other than milk) and encourage activity for those children who tend to sit and read or watch TV.

There are two basic strategies for managing encopresis. The first strategy entails eliminating any constipation or impaction that may be impairing intestinal functioning and the second requires stimulating regular bowel functioning for a long enough period of time to establish bowel regularity without the use of any medications. In the Wright and Christoffersen regimens, components are also included to improve parents' compliance with the behavioral medical regimen. Both Wright and Christoffersen have the parents mail in recording forms or phone the therapist periodically.

Levine provides an excellent tabular comparison for the clinician to use in differentiating encopresis from Hirschsprung's Disease (the most common organic cause for bowel dysfunction that is present from birth on).\(^13\) The Table lists the symptoms of Hirschsprung's disease that would mandate referral to a physician for management.

There have been two recent publications that have examined the incidence of behavioral disorders in children who present with encopresis.\(^14,15\) Both have concluded that although some children with encopresis also have behavioral problems, the incidence is simply not high enough to suggest a causal relationship between the two conditions. Rather, the encopresis and the emotional problems may have to be dealt with separately. The actual presenting symptoms would determine the degree to which these problems were addressed.

**RECOMMENDATIONS**

Toilet training, toileting refusal, constipation, and encopresis frequently involve a complex interplay of the child's gastrointestinal and genitourinary system with a variety of environmental inputs. Obviously, the child's developmental status also plays an important part in determining whether to institute a treatment approach. For a parent to begin toilet training before a child has matured sufficiently is inviting failure and disappointment. If a parent insists on having a child treated for a toileting problem when the child is too young, the clinician should consider encouraging the parent(s) to wait until the child is maturationally ready. A discussion with parents about developmental norms would be helpful in pointing out to parents that failure to achieve continence of urine and feces is not considered a problem (ie, is not considered abnormal) until a child reaches an age when most of his or her peers have achieved continence. Because toileting problems are often a source of enormous frustration for parents, a carefully pre-

<table>
<thead>
<tr>
<th>Symptom</th>
<th>Encopresis</th>
<th>Hirschsprung's Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fecal incontinence</td>
<td>Always</td>
<td>Rare</td>
</tr>
<tr>
<td>Constipation</td>
<td>Common</td>
<td>Always</td>
</tr>
<tr>
<td>Symptoms as newborn</td>
<td>Rare</td>
<td>Almost always</td>
</tr>
<tr>
<td>Late onset (after the age of 3)</td>
<td>Common</td>
<td>Rare</td>
</tr>
<tr>
<td>Difficult bowel training</td>
<td>Common</td>
<td>Rare</td>
</tr>
<tr>
<td>Avoidance of toilet</td>
<td>Common</td>
<td>Rare</td>
</tr>
<tr>
<td>Failure to thrive</td>
<td>Rare</td>
<td>Common</td>
</tr>
<tr>
<td>Anemia</td>
<td>None</td>
<td>Common</td>
</tr>
<tr>
<td>Obstructive symptoms</td>
<td>Rare</td>
<td>Common</td>
</tr>
<tr>
<td>Stool in ampulla</td>
<td>Common</td>
<td>Rare</td>
</tr>
<tr>
<td>Tight sphincter</td>
<td>Rare</td>
<td>Common</td>
</tr>
<tr>
<td>Large calibre stools</td>
<td>Common</td>
<td>Never</td>
</tr>
<tr>
<td>Anal manometry</td>
<td>Sometimes</td>
<td>Always</td>
</tr>
<tr>
<td></td>
<td>abnormal</td>
<td>abnormal</td>
</tr>
</tbody>
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*Adapted from Levine MD.\(^13\)
pared and supervised treatment program can be a very rewarding experience for clinicians.

REFERENCES