Indian Academy of Pediatrics (IAP)

GUIDELINES FOR PARENTS

Enuresis and Encopresis

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10 FAQs on ENURESIS AND ENCOPRESIS

1. My younger son who is 6 years old still wets the bed at night three to four times in a week whereas the elder son, who is now 9 years old, stopped bedwetting when he was 2.5 years. I am really ashamed talking about it but it is a real problem especially when he has to stay overnight at some other place. What is this condition? Is my child an exception? Why does he have it?
2. Does my child require any laboratory work-up? Could it be some serious underlying condition?
3. In spite of repeatedly telling him and occasionally even scolding him, he does not stop bedwetting. What do I do for this? I do not want to give him any medicines.
4. Is there any medicine for this condition? How long will he have to take this medicine? Are there any side effects?
5. My elder 9-year-old son who was dry after 2.5 years age has started bedwetting for last 2 months. What could be the reason and how can I help him?
6. My 6-year-old son strains a lot to pass hard stool frequently in small amount. My friend's 6-month-old exclusively breastfed daughter passes stool every 4–5 days and still her pediatrician says that it is normal. I am really confused. Is my son constipated or what?
7. Other children do not want to play with my 6-year-old son because he often soils clothes and stinks. I understand constipation means not passing stool. But, here is my son who is actually passing stool and soiling clothes. What is this condition?
8. Why does my son have this constipation and encopresis? Did I make some mistake in bringing him up? Can he be suffering from some serious problem?
9. Doctor, I have read about barium contrast study, sonography, and even MRI for constipation. Is such work-up really required?
10. I have understood the condition of constipation and encopresis. So, what care should I take? Will he require any medications? How long? Will he not get habituated to it? Will he not get side effects in the long run?

Under the Auspices of the IAP Action Plan 2020–2021

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Enuresis and Encopresis

Q1

My younger son who is 6 years old still wets the bed at night three to four times in a week whereas the elder son, who is now 9 years old, stopped bedwetting when he was 2.5 years. I am really ashamed talking about it but it is a real problem especially when he has to stay overnight at some other place. What is this condition? Is my child an exception? Why does he have it?

I understand your concern and sense of embarrassment. It is good that you are asking for professional guidance. Several parents feel hesitant in discussing this issue:

- The condition wherein a child whose age is >5 years and has discrete episodes of urinary incontinence during sleep (does not wake up to void and passes urine in the bed) is called *enuresis*.
- Enuresis in children without any other lower urinary tract symptoms (e.g., increased frequency, daytime incontinence, urgency, genital or lower urinary tract pain) and without a history of bladder dysfunction is known as *monosymptomatic enuresis*.
- The children with daytime urinary symptoms along with enuresis are said to have *bladder dysfunction.*
- Enuresis in children who have never achieved a satisfactory period of dryness is called *primary enuresis*, and one that develops after a dry period of at least 6 months is called *secondary enuresis*.

Most of the children presenting to the pediatrician have isolated monosymptomatic primary enuresis.

Is it frequent?

- It is a common condition. About 15% of children do not achieve the control by 5 years. However, as they grow up this percentage goes down to 1–2% by 15 years age. So, your child is not an exception.
- Enuresis can be handled well with a scientific and systematic approach. Unfortunately, parents unjustifiably shy away from seeking professional help.
- Factors which are thought to cause bedwetting in children are neuronal–maturational delay, increased urinary production at night, genetic inheritance, deep sleep, disturbed sleep-arousal mechanism, small bladder capacity, and bladder muscle over activity.

Q2

Does my child require any laboratory work-up? Could it be some serious underlying condition?

- Generally, in absence of other significant symptoms and findings on physical examination, child does not require detailed investigations except for a simple urine routine analysis.
- Usually, a careful history and thorough physical examination suffice to rule out any serious underlying condition. A *voiding diary* with frequency and volume of voiding and other urinary symptoms is of great help.
- It is important that parents share a detailed history. Day-time urinary symptoms such as burning pain while passing urine, weak or interrupted stream of urination, dribbling, increased or decreased frequency of urination (<4 or >8 times in a day), day-time loss of bladder control point to an underlying condition. Snoring, chronic constipation, and growth failure are also important conditions to look for.
- On physical examination, your doctor will also look for deformities of spine, dimple over lower back or a hairy birthmark which can lead to suspicion of spinal cord abnormality.
- Urine analysis can help to diagnose urinary tract infection and other kidney problems.

A child with above-mentioned features will need detailed work-up with investigations such as blood tests, sonography, and MRI depending on the suspected condition.

Q3

In spite of repeatedly telling him and occasionally even scolding him, he does not stop bedwetting. What do I do for this? I do not want to give him any medicines.

"Big NO to nagging, scolding, shaming, and punishing".

Let us try to understand this emphatic and profound statement. Though it is reassuring to know that this condition resolves on its own in most children, it has several psychosocial consequences for child and family. The embarrassment leads to avoidance of outings for school tours or social occasions where night stay is required. It can also lead to low self-esteem with other secondary effects on behavior and performance.

- The age at which one initiates a management program depends on the perception of need and level of motivation of family and child.
- Associated coexisting conditions such as constipation also need to be addressed.

There are several approaches to the management of enuresis:

- Initial management involves education, advice, and motivation therapy.
- Active treatment in form of enuresis alarm and medication (desmopressin) are used at a later stage.
- It is imperative that each significant member of the family should understand that this condition is not due to volitional refusal of child to remain dry. No child likes to wet his bed.
- The management requires several months to get response.

General Advice

- Regular voiding during daytime
- Passing urine before bedtime
- Avoiding high-sugar and caffeine-based drinks and keeping a diary of events of bed-wetting.
- Regulation of fluid intake also helps. Daily fluid intake should be divided into 40% in the morning (7 AM to 12 PM); 40% in afternoon (12 PM to 5 PM); and 20% in late evening (after 5 PM).

Motivation Therapy

It is recommended for children between 5 and 7 years of age who do not wet the bed every night. It is based on *reward system*.

- Initial reward can be given for simple behavioral changes such as going to toilet before bed rather than dryness.

- Larger awards are given for longer adherence to such behavior and eventually for longer period of dryness.
- The rewards may be in the form of stars given on a chart **(Table 1)**. Such stars can later be transformed into some suitable physical objects or rewards in kind.

TABLE 1: Weekly reward chart.

	Monday	*Tuesday*	*Wednesday*	*Thursday*	*Friday*	*Saturday*	*Sunday*
Stars for dry nights							

- Scolding, shaming, threatening, or withdrawal of privileges used as negative consequences for nonadherence are very counterproductive and lead to resistance and low self-esteem **(Fig. 1)**.

Fig. 1: Scolding and shaming are counterproductive.

Active Therapy

Active therapy is recommended for children who have no improvement after 3–6 months of initial management as described above. It is used to hasten improvement, improve self-esteem, and permit overnight activities. It includes *enuresis alarms* and medication. Your doctor will guide you for the choice.

*Enuresis Alarm **(Fig. 2)***

- It works on principle of reflex conditioning.
- It has a sensor placed in undergarments, which sets off an audible alarm when the undergarments get wet.

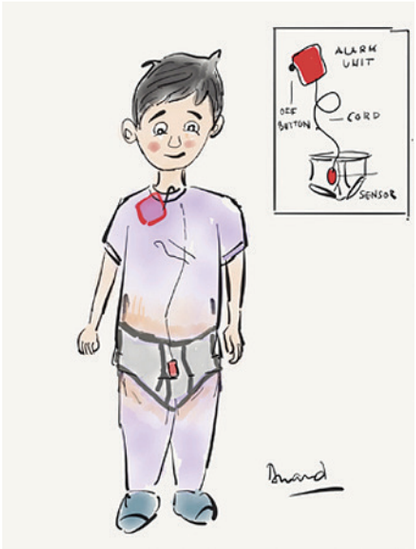

Fig. 2: Enuresis alarm is simple to use.

- With activation of alarm child wakes up and goes to toilet.
- Child is trained for the procedure which involves testing of alarm, change of bedding if wet, wiping the sensor dry, and then resetting it before going to sleep again.
- This alarm therapy requires a lot of motivation, patience, and deft handling by parents **(Fig. 3)**.

Fig. 3: Enuresis alarm alone may not work, motivation is important.

Q4

Is there any medicine for this condition? How long will he have to take this medicine? Are there any side effects?

Desmopressin

- Desmopressin (given orally) is currently the most commonly prescribed medication. It is especially useful in children who have large amount of urine production at night.
- The tablet or mouth dissolving melt form of the medication is administered 60 minutes before bedtime and has to be continued for a period of minimum 3 months.
- Further continuation and tapering are decided based on the response.
- Oral desmopressin is a very safe drug.
- Lowering of sodium in the blood is a rare but serious side effect. To prevent this, fluid intake should be restricted to 200 mL (one glass) from 1 hour before and 8 hours after desmopressin intake.
- Desmopressin should be temporarily discontinued during episodes of fluid and electrolyte imbalance (fever, recurrent vomiting, diarrhea, vigorous exercise, etc.).

Oxybutynin and *tolterodine* are other medications used for children with hyperactive bladder.

Alarm therapy and medications can be used alone or in combination.
The choice will depend upon various factors such as early or late stage of management, frequency of bed-wetting, age, extent of rapidity of control required, family psychosocial dynamics and level of motivation.

Your doctor will also ask you to keep a *voiding diary* **(Fig. 4)** for deciding the mode of therapy and monitoring of response.

Fig. 4: Enuresis diary helps evaluation and follow-up.

Q5

My elder 9-year-old son who was dry after 2.5 years age has started bedwetting for last 2 months. What could be the reason and how can I help him?

Children who develop enuresis after a dry period of at least 6 months are labeled as *secondary enuresis*. It is commonly attributed to stressful situations.

Causes

This can be dysfunctional family dynamics such as marital disharmony, birth of a sibling with emergence of sibling rivalry, aggressive disciplinary methods used by parents, study pressure, and mishandling of children with special needs. Secondary enuresis may be due to certain physical ailments such as diabetes, bladder dysfunction, obstructive sleep apnea, etc.

Management

The management approach to the secondary enuresis is mainly identification of underlying stressor and its resolution. Underlying disease, if any, requires treatments specific to the diagnosis.

Q6

My 6-year-old son strains a lot to pass hard stool frequently in small amount. My friend's 6-month-old exclusively breastfed daughter passes stool every 4–5 days and still her pediatrician says that it is normal. I am really confused. Is my son constipated or what?

- The frequency of stool is variable depending on the age and diet.
- Small healthy infants on exclusive breastfeeding may have a wide range of stooling patterns ranging from several times in a day to passing stool at interval of several days. The pattern changes with growth of the child.

Constipation

A child is labeled as having *constipation* when there are features such as:

- Infrequent bowel evacuation
- Hard small feces

- Difficult or painful evacuation of large-diameter stools
- Retentive posturing or excessive volitional stool retention
- Large fecal mass in the rectum and soiling **(Figs. 5 and 6)**.

It occurs in 10–30% of children. It is labeled as *chronic constipation,* if the duration is >3 months.

Fig. 5: Child may take very long to pass stool.

Fig. 6: Withholding posture is typical of functional constipation.

Functional Constipation

- In children, the constipation may be functional constipation or it may be due to organic causes.
- Functional constipation is responsible for >95% of cases of constipation in healthy children 1 year and older, and is particularly common during the preschool years.
- Functional constipation is defined by the presence of features describing stool frequency, hardness, size, fecal incontinence, or volitional stool retention.
- The diagnosis also requires exclusion of structural abnormalities of gastrointestinal tract and several medical conditions which can be recognized by specific features.

Q7

Other children do not want to play with my 6-year-old son because he often soils clothes and stinks. I understand constipation means not passing stool. But, here is my son who is actually passing stool and soiling clothes. What is this condition?

- This is called *fecal incontinence*.
- It is defined as repetitive, voluntary or involuntary, passage of stool in inappropriate places by children 4 years of age and older.
- When fecal incontinence is present without any evidence of overt neuromuscular anorectal dysfunction, it is called *functional fecal incontinence*. It is also known as *encopresis* or simply as soiling.
- This can be *retentive* or *nonretentive*.
  - Majority of the children have retentive type which is associated with features of underlying functional constipation.
  - The label of nonretentive fecal incontinence is used when there is absence of features of functional constipation, and defecation occurs in inappropriate locations. It is seen more with disturbed psychosocial settings.

Fecal incontinence is especially distressing in adolescents as it leads to low self-esteem and social isolation and can have a major deleterious impact on quality of life.

Q8

Why does my son have this constipation and encopresis? Did I make some mistake in bringing him up? Can he be suffering from some serious problem?

There are several factors that contribute to development of functional constipation.

Introduction of solid foods (age 6 months to 1 year), toilet training period (age 2–3 years), and during start of school (age 3–5 years) are the milestones, wherein the child is particularly prone to developing functional constipation. Each of these milestones can convert defecation into an unpleasant experience leading to behaviors that promote constipation. During teenage years eating disorders, school stressors, and behavioral disorders promote development of constipation.

Certain aspects are very relevant to discuss:

- There is a *vicious cycle* of formation of *hard stool* due to diet or other factors leading to *painful defecation* which in turn leads to *withholding* and stool accumulation, which again leads to more painful defecation. Painful defecation frequently precedes chronic fecal impaction and fecal soiling, especially in young toddlers.
- Faulty *toilet training* with vigorous and forceful efforts on a developmentally unready child can lead to voluntary withholding with ensuing vicious cycle of chronic constipation.
- *Diet* plays an important role. Consumption of large amounts of highly processed food items, excess of milk intake and less of fruits, vegetables, and fiber can lead to constipation.
- Familial predisposition and certain developmental conditions also make children prone to constipation.

Q9

Doctor, I have read about barium contrast study, sonography, and even MRI for constipation. Is such work-up really required?

Diagnosis of functional constipation is based on a thorough history and physical examination which rules out organic causes. The physical examination by your doctor may involve a digital rectal examination, if required.

- Investigations such as an X-ray of abdomen, sonography, contrast study of large intestine, and MRI of spine or blood reports are done in few selected cases in which an organic cause is suspected by the pediatrician.
- Few commonly suspected medical conditions are hypothyroidism, celiac disease, cow's milk intolerance, etc.
- Some surgical conditions are anal fissures, anorectal abnormalities, Hirschsprung disease, spinal cord anomalies, etc.

Q10

I have understood the condition of constipation and encopresis. So, what care should I take? Will he require any medications? How long? Will he not get habituated to it? Will he not get side effects in the long run?

- The aim of treatment of chronic functional constipation and fecal incontinence is to do *bowel retraining*.
- It means restoring the responsiveness of colon to stool burden. This requires a prolonged comprehensive program with multimodal therapy including behavior modification, dietary changes, and use of laxatives.
- The type and intensity of the intervention should be tailored to the severity of constipation and the child's developmental stage. A close follow-up is necessary.

There are four general steps in bowel retraining:

1. Disimpaction
2. Prolonged laxative treatment and behavior therapy to achieve regular evacuation and avoid recurrent constipation
3. Dietary changes (primarily increasing fiber content) to maintain soft stools
4. Gradual tapering and withdrawal of laxatives as tolerated

Toilet Training and Behavior Modification

Toilet training with gentle approach may be started after 2 years of age. Any kind of force is very counterproductive. A reward system should be used to encourage child to use potty. Soiling should not evoke any anger or scolding. For nonretentive fecal incontinence, behavior therapy is the mainstay of management.

Dietary Management

Parents should inculcate dietary habits to promote a balanced diet which includes whole grains, fruits, and vegetables. Milk slows intestinal motility and satiates the child, thereby diminishing the intake of other fluids and fiber-containing foods. Hence, discourage consumption of excess milk and other dairy products. Processed foods and bakery items also need to be restricted. Encourage intake of adequate fiber and fluids. Dietary changes should not be forced.

Medications

- In young infants, osmotic laxatives such as lactulose and sorbitol are safe and effective.
- A glycerine suppository may be used occasionally.
- For older children, polyethylene glycol (PEG) is very commonly used. It is safe and effective. It is not habit forming. It is available in powder and liquid form.

Duration of therapy for chronic constipation may run in to several months. The disimpaction stage may require enema or large doses of laxatives for few days.