CONDITION

Nocturnal enuresis

Nocturnal enuresis is repeated bedwetting during sleep in someone old enough to usually stay dry.

WHAT IT IS
Repeated involuntary bedwetting during sleep

BODY SYSTEM
Urinary system and sleep-wake control

MAIN SYMPTOMS
Nighttime urine leaks, wet bedding, disrupted sleep

WHAT CAUSES IT
Delayed development, nighttime urine production, inherited tendency

HOW IT IS DIAGNOSED
Medical history, examination, bladder diary, urine testing

MAIN TREATMENT
Bladder habits, bedwetting alarms, or medication

CAN IT BE CURED?
Sometimes - many improve with maturity or treatment

IS IT AN EMERGENCY?
No, unless accompanied by severe acute illness

LONG-TERM OUTLOOK
Most children improve, but bedwetting can persist

Overview

Nocturnal enuresis means passing urine during sleep without intending to. It is often called bedwetting. The term is usually used from age 5 onward, because staying dry overnight takes longer for some children to learn.

Bedwetting is not laziness, bad behaviour, or a failure of toilet training. Staying dry requires the bladder, kidneys, brain, and sleep-wake system to work together. These systems mature at different rates.

Primary nocturnal enuresis means a child has never been consistently dry at night for at least six months. Secondary nocturnal enuresis means bedwetting begins again after at least six months of dryness. Secondary bedwetting is more likely to need an assessment for a new physical or emotional cause.

Some children have bedwetting without any daytime bladder symptoms. This is called monosymptomatic nocturnal enuresis. Others also have urgency, frequent urination, daytime wetting, or difficulty emptying the bladder. These symptoms can affect which treatment is most suitable.

Bedwetting can disturb sleep and affect confidence, school trips, sleepovers, and family life. Supportive treatment can reduce its impact while the body continues to mature.

Symptoms

The main symptom is waking with wet clothing or bedding after passing urine during sleep. It may happen occasionally or on many nights.

A child may not wake while urinating and may sleep through a wet bed. Others wake afterward or have trouble returning to sleep.

Important related symptoms include:

These symptoms do not automatically mean there is a serious problem. They can, however, point to constipation, a urinary infection, diabetes, sleep-disordered breathing, or a bladder condition that needs separate attention.

Bedwetting in an adult is less common than in a child. New adult-onset bedwetting should be medically assessed rather than assumed to be a continuation of childhood bedwetting.

- Sudden or frequent urges to urinate during the day
- Daytime wetting, straining, or a weak urine stream
- Pain or burning when urinating
- Constipation or stool accidents
- Loud snoring, pauses in breathing, or marked daytime sleepiness
- Unusual thirst, weight loss, or passing large amounts of urine

Causes and risk factors

There is usually no single cause. Primary bedwetting often results from several developmental factors occurring together.

Some people produce more urine at night because their nighttime rise in vasopressin is not strong enough. Vasopressin is a natural hormone that tells the kidneys to make less urine while you sleep.

The bladder may also hold less urine overnight than expected. In other cases, the brain does not respond to a full-bladder signal strongly enough to wake the sleeper. This is sometimes described as difficulty waking, but it does not mean the child is choosing to ignore the signal.

Bedwetting often runs in families. An inherited tendency can affect how quickly nighttime bladder control develops. Having a family history does not mean bedwetting will always occur or persist.

Constipation can press on the bladder and interfere with bladder control. Daytime habits, such as regularly postponing urination, may also contribute.

Secondary bedwetting can begin during periods of stress or major change. It can also be associated with a urinary tract infection, diabetes, sleep apnea, constipation, or another medical problem. Emotional stress can contribute, but it should not be assumed to be the cause without considering physical symptoms.

Diagnosis

No single test confirms every case. Assessment usually begins with a discussion of nighttime wetting, daytime bladder habits, bowel movements, sleep, fluid intake, medicines, and any previous dry period.

A bladder diary can be helpful. This records when and how much someone drinks, when they urinate, wet nights, and bowel movements. It may show patterns that are difficult to remember during an appointment.

A physical examination may include the abdomen, lower back, nervous system, and external genital area when appropriate. This looks for constipation and less common problems affecting the urinary tract or nerves.

A urine test may be used, especially if bedwetting began after a dry period or there are daytime symptoms, pain, excessive thirst, or weight loss. It can help identify infection, glucose from diabetes, or other abnormalities.

Blood tests, ultrasound scans, and bladder function tests are not routinely needed for straightforward primary bedwetting. They may be considered when there are repeated infections, abnormal examination findings, unusual urine flow, persistent daytime symptoms, or poor response to initial treatment.

Treatment and management

Treatment should match the person's age, symptoms, preferences, and readiness. A child should be included in decisions without being blamed or made responsible for something outside their control.

Basic bladder and bowel habits are usually addressed first. These include using the toilet regularly during the day, urinating before sleep, and treating constipation. Normal daytime hydration is important. Restricting fluids so much that a child becomes thirsty or dehydrated is not appropriate.

A bedwetting alarm detects moisture and makes a sound or vibrates. Over time, it helps the brain connect a full bladder with waking or holding urine until morning. An adult may initially need to help the child wake and use the toilet.

Alarms require consistent use and can interrupt the household's sleep at first. Improvement may take several weeks, and wet nights can recur after treatment stops. Alarms can offer longer-lasting improvement for families able to use them regularly.

Desmopressin is a medicine that reduces urine production overnight. It may be considered when quicker or short-term dryness is important, such as for a school trip, or when an alarm is unsuitable. It helps on the nights it is taken but does not necessarily produce lasting dryness after it is stopped.

Too much fluid around desmopressin can cause dangerously low blood sodium. Fluid limits must be followed exactly as explained by the prescriber or pharmacist. The medicine may need to be withheld during vomiting, diarrhea, fever, or other illnesses affecting fluid balance.

An alarm and desmopressin may sometimes be used together. Medicines that relax an overactive bladder may be considered by a clinician when daytime symptoms are present. Tricyclic medicines such as imipramine are not routine treatment because overdose and side effects can be serious.

Practical protection can reduce stress while treatment is underway. Waterproof mattress covers, washable bedding, and absorbent nighttime underwear are reasonable options. Rewards should focus on actions the child can control, such as using the toilet before bed or helping with an alarm, rather than rewarding dry nights alone.

Punishment, teasing, and forced exposure of wet bedding do not improve bladder control and can cause harm.

Complications

Straightforward nocturnal enuresis does not usually damage the kidneys or bladder. Its main effects are emotional, social, and practical.

Repeated wetting may contribute to embarrassment, low confidence, disrupted sleep, and avoiding sleepovers or trips. Laundry and broken sleep can also place strain on families.

Prolonged contact with urine may irritate the skin. Gentle washing, thorough drying, and a suitable barrier product can help protect sore areas.

Complications may instead come from an underlying condition. Untreated constipation, sleep apnea, diabetes, or a urinary infection requires its own care. This is why new symptoms or bedwetting that returns after a long dry period should not simply be dismissed.

Prevention

Primary nocturnal enuresis usually cannot be prevented. It is often related to inherited traits and the pace at which nighttime bladder control develops.

Healthy bladder and bowel habits may reduce wetting or make treatment easier, but they cannot guarantee dry nights. Helpful habits include regular daytime toilet visits, adequate daytime fluids, urinating before sleep, and managing constipation.

Avoiding shame is also important. Bedwetting is involuntary, and pressure cannot speed up the development of bladder-brain control.

When bedwetting is secondary to another problem, treating that problem may prevent further episodes. Examples include constipation, a urinary infection, or sleep-disordered breathing.

Living with it and what to expect

Many children become dry at night as their bladder capacity, hormone pattern, and ability to wake mature. The timing cannot be predicted for one child. Bedwetting can continue into the teenage years and, less commonly, adulthood.

Progress is not always steady. A person may have several dry weeks followed by wet nights during illness, stress, travel, or changes in routine. This does not mean treatment has failed or that anyone is at fault.

Alarms can take time and family effort. Desmopressin may provide dryness more quickly, but wetting often returns when it is stopped. Some people need another course of treatment or a different approach.

Planning can make everyday life easier. Discreet absorbent underwear, spare sleepwear, and a waterproof sleeping bag liner may help with trips or sleepovers. A trusted adult can help arrange privacy without sharing unnecessary information.

If bedwetting continues despite consistent treatment, reassessment can look for constipation, daytime bladder problems, sleep symptoms, or difficulties using the treatment. Referral to a continence, pediatric, or urology service may be appropriate.

When to get medical help

Arrange a routine appointment if bedwetting is causing distress, continues beyond the age when the child and family want help, or has not improved with basic measures. Assessment is also appropriate if wetting returns after at least six dry months.

Seek prompt medical advice for:

Unusual thirst, weight loss, tiredness, and frequent large amounts of urine can be signs of diabetes and need urgent assessment. Seek emergency help if these occur with vomiting, abdominal pain, deep or difficult breathing, confusion, or severe drowsiness.

Bedwetting by itself is not an emergency.

- Pain or burning when urinating, fever, or cloudy or bloody urine
- Daytime wetting, a weak stream, straining, or trouble emptying the bladder
- Ongoing constipation or stool accidents
- Loud snoring, breathing pauses, or marked daytime sleepiness
- New bedwetting in a teenager or adult
- Bedwetting associated with weakness, numbness, or changes in walking

Common questions

Why does my child wet the bed but stay dry during the day?

Nighttime control requires the body to reduce urine production, store urine for longer, and wake in response to bladder signals. These abilities may still be developing even when daytime control is established.

Is my child just sleeping too deeply?

Many children with bedwetting are difficult to wake when their bladder is full. Sleep depth alone does not explain every case, and the child is not choosing to ignore the need to urinate.

Should I wake my child to use the toilet?

Scheduled waking may keep the bed dry that night, but it does not usually teach lasting

nighttime control. If used temporarily, the child should be fully awakened and able to walk safely to the toilet. A bedwetting alarm is designed to build a connection between bladder signals and waking.

Are nighttime pull-ups making the bedwetting continue?

Absorbent underwear does not cause bedwetting. It can protect sleep, skin, and bedding. Some alarm programs work better without it because the moisture sensor must detect urine, but this is a practical treatment issue rather than a cause.

When is bedwetting considered a medical concern?

Bedwetting from age 5 onward can be discussed if it is frequent, distressing, or affecting daily life. Earlier assessment is useful when there are daytime symptoms, pain, constipation, excessive thirst, snoring, or wetting that returns after a long dry period.

Will desmopressin cure bedwetting?

Desmopressin reduces urine production while it is being used. It can provide dry nights, but bedwetting may return after the medicine is stopped. Some people become dry as they mature, with or without treatment.

Sources

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