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Bedwetting

Bedwetting Overview

Bedwetting, or nocturnal enuresis, refers to the passage of urine during sleep. Enuresis is the medical term for wetting, whether in the clothing during the day or in bed at night. Another name for enuresis is incontinence.

For infants and young children, urination is involuntary, meaning they have no control over it. Wetting is normal for them. Most children achieve some degree of bladder control by age 4 years. Daytime control is usually first; nighttime control comes later.

The age at which bladder control is expected varies considerably.

- Some parents expect dryness at a very early age, while others not until much later.
- Factors that affect the age at which wetting is considered a problem include the following:
    - The child's sex
    - The child's development and maturity
    - The child's overall physical and emotional health
    - The culture and attitudes of the child, parents, and caregivers

It is assumed that very young children will wet the bed. Therefore, the term "bedwetting" is usually reserved for children (and adults) who are beyond the age at which nighttime bladder control is expected.

- This is often defined as children older than 5 years, but, in fact, 15-20% of 5-year-old children still wet the bed.
- Most children simply outgrow bedwetting.
- The child who wets the bed needs parental support and reassurance.
- Most of these children will eventually be able to stay dry; they stop bedwetting at a rate of about 15% per year.
- Dryness can be expected in most 7-year-old children.

Bedwetting is a very common problem.

- About 5-7 million children in the United States wet the bed.
- It occurs in both sexes about equally, although some studies have shown it to be more common in boys than girls.

- About 40% of 3-year-old children and 15-20% of 5-year-old children wet the bed frequently.
- Although the problem can continue to adulthood, it is by far most common in school-aged children. About 1% of adults have persistent bedwetting.
- While we refer to "children" here, it is with the understanding that much of this information also applies to adults with a bedwetting problem.

Bedwetting is a treatable condition.

- While children with this embarrassing problem and their parents once had few choices except waiting to "grow out of it," there are now treatments that work for many children.
- Several devices, treatments, and techniques have been developed to help these children stay dry at night.

Bedwetting Causes

While bedwetting can be a symptom of an underlying disease, a large majority of children who wet the bed have no underlying disease that explains their bedwetting. In fact, a true organic cause is identified in only about 1% of children who wet the bed.

That does not mean that the child who wets the bed can control it or is doing it on purpose. Children who wet are not lazy, willful, or disobedient.

There are 2 types of bedwetting: primary and secondary. Primary means bedwetting that has been ongoing since early childhood without a break. A child with primary bedwetting has never been dry at night for any significant length of time. Secondary bedwetting is bedwetting that starts up after the child has been dry at night for a significant period of time, at least 6 months.

In general, primary bedwetting probably indicates immaturity of the nervous system. A bedwetting child does not recognize the sensation of the full bladder during sleep and thus does not awaken during sleep to urinate into the toilet.

The cause is likely due to one or a combination of the following:

- The child cannot yet hold urine for the entire night.
- The child does not waken when his or her bladder is full.
- The child produces a large amount of urine during the evening and night hours.
- The child has poor daytime toilet habits. Many children habitually ignore the urge to urinate and put off urinating as long as they possibly can. Parents are familiar with the leg crossing, face straining, squirming, squatting, and groin holding that children use to hold back urine.

Secondary bedwetting can be a sign of an underlying medical or emotional problem. The child with secondary bedwetting is much more likely to have other symptoms, such as daytime wetting. Common causes of secondary bedwetting include the following:

- Urinary tract infection: The resulting bladder irritation can cause pain or irritation with urination (dysuria), a stronger urge to urinate (urgency), and frequent urination (frequency). Urinary tract infection in children often indicates another problem, such as an anatomical abnormality.

- Diabetes: People with diabetes have a high level of sugar in the their blood. The body increases urine output to try to get rid of the sugar. Having to urinate frequently is a common symptom of diabetes.

- Structural or anatomical abnormality: An abnormality in the organs, muscles, or nerves involved in urination can cause incontinence or other urinary problems that could show up as bedwetting.

- Neurological problems: Abnormalities in the nervous system, or injury or disease of the nervous system, can upset the delicate neurological balance that controls urination.

- Emotional problems: A stressful home life, as in a home where the parents are in conflict, sometimes causes children to wet the bed. Major changes, such as starting school, a new baby, or moving to a new home, are other stresses that can also cause bedwetting. Children who are being physically or sexually abused sometimes begin bedwetting.

Bedwetting tends to run in families. Many children who wet the bed have a parent who did too. Most of these children stop bedwetting on their own at about the same age the parent did.

Bedwetting Symptoms

Most people (80%) who wet their beds, wet only at night. They tend to have no other symptoms other than wetting the bed at night.

Other symptoms could suggest psychological causes or problems with the nervous system or kidneys and should alert the family or health care provider that this may be more than routine bedwetting.

- Wetting during the day

- Frequency, urgency, or burning on urination

- Straining, dribbling, or other unusual symptoms with urination

- Cloudy or pinkish urine, or blood stains on underpants or pajamas

- Soiling, being unable to control bowel movements (fecal incontinence or encopresis)

- Constipation

Frequency of urination is different for children than for adults.

- While many adults urinate only 3 or 4 times a day, children urinate much more frequently, in some cases as often as 10-12 times each day.

- "Frequency" as a symptom should be judged in terms of what is normal for that particular child.

Fecal impaction may show up as constipation. Both fecal impaction and constipation cause straining, which can injure the nearby urinary sphincters, muscles that control flow of urine out of the body.

- Fecal compaction is when feces becomes so tightly packed in the lower intestine and rectum that passing a bowel movement becomes very difficult or even impossible.

- The hard, tightly packed feces in the rectum can press on the bladder and surrounding

nerves and muscles, interfering with bladder control.

- Neither fecal impaction nor constipation is that unusual in children.

When to Seek Medical Care

The decision of when to involve your health care provider can be difficult. If the child displays only nighttime wetting without any other symptoms, then when to seek medical treatment is up to the family.

- When the child is aged 5-7 years is probably a good time to seek medical help.
- Referral to an enuresis clinic is likely not needed for most children with no other symptoms.

A child should be checked without delay for an underlying medical problem if he or she develops any other symptoms, physical or behavioral.

Exams and Tests

The health care provider will ask many questions about the child's symptoms and about many other factors that can contribute to bedwetting. These include the following:

- The pregnancy and birth
- Growth and development, including toilet training
- Medical conditions
- Medications, vitamins, and other supplements
- Family history
- Home and school life
- Behavior
- Toilet habits
- Nighttime routines
- Diet, exercise, and other habits

There is no medical test that can pinpoint the cause of bedwetting.

- A routine urine test (urinalysis) usually is performed to rule out any urinary tract infection or kidney disease.
- An x-ray of the kidneys and bladder may be done if a physical problem is suspected.

Generally, medical professionals divide bedwetting into uncomplicated and complicated cases.

- Uncomplicated cases consist of only bedwetting with no other symptoms, normal urinary stream, and no daytime urination complaints or soiling. These children have normal physical exam and urinalysis findings.

- Complicated cases may be any of the following: wetting in relation to another disease or condition, problems urinating, soiling or daytime urinary incontinence, or urinary tract infections. These children require further evaluation.

Children who have complicated bedwetting may be referred to a specialist in urinary tract problems (urologist) for further evaluation.

Bedwetting Treatment

Bedwetting is typically seen more as a social disturbance than a medical disease. It creates embarrassment and anxiety in the child and sometimes conflict with parents. The single most important thing parents can and should do is be supportive and reassuring rather than blaming and punishing.

The many treatment options range from home remedies to drugs, even surgery for children with anatomical problems.

- Underlying medical or emotional conditions should first be ruled out.
- If there is an underlying condition, it should be treated and eradicated.
- If bedwetting persists once these steps are taken, however, there is considerable debate as to how and when to treat.

Treatment of uncomplicated bedwetting is not appropriate for children younger than 5 years.

- Because a majority of children 5 years and older spontaneously stop bedwetting without any treatment, many medical professionals choose not to do anything.
- The age at which to treat, then, depends on the attitudes of the child, the parents/caregivers, and the health care provider.
- Many providers feel that treating children younger than 7 years is to be discouraged. However, this is a very individual decision.

Self-Care at Home

Here are some tips for helping your child stop wetting the bed. These are techniques that are most often successful.

- Reduce evening fluid intake. The child should try to not take any fluids in the 2 hours before bedtime.
- The child should urinate in the toilet before bedtime.
- Set a goal for the child of getting up at night to use the toilet. Instead of focusing on making it through the night dry, help the child understand that it is more important to wake up every night to use the toilet.
- A system of sticker charts and rewards works for some children. The child gets a sticker on the chart for every night of remaining dry. A certain number of stickers earns a reward.
- Make sure the child has easy access to the toilet. Clear the path from his or her bed to the toilet and install night-lights. Provide a portable toilet if necessary.
- Some believe that you should avoid using diapers or pull-ups at home because they can

interfere with the motivation to wake up and use the toilet. Others argue that pull-ups help the child feel more independent and confident. Many parents limit their use to camping trips or sleepovers.

The parents' attitude toward the bedwetting is all-important in motivating the child.

- Focus on the problem: bedwetting. Avoid blaming or punishing the child. The child cannot control the bedwetting, and blaming and punishing just make the problem worse.
- Be patient and supportive. Reassure and encourage the child often. Do not make an issue out the bedwetting each time it happens.
- Enforce a "no teasing" rule in the family. No one is allowed to tease the child about the bedwetting, including those outside the immediate family. Do not discuss the bedwetting in front of other family members.
- Help the child understand that the responsibility for being dry is his or hers and not that of the parents. Reassure the child that you want to help him or her overcome the problem.
- The child should be included in the clean-up process.

To increase comfort and reduce damage, use washable absorbent sheets, waterproof bed covers, and room deodorizers.

Self-awakening programs are designed for children who are capable of getting up at night to use the toilet, but do not seem to understand its importance.

- One technique is to have the child rehearse the sequence of events involved in getting up from bed to use the toilet during the night prior to going to bed each night.
- Another strategy is daytime rehearsal. When the child feels the urge to urinate, he or she should go to bed and pretend he or she is sleeping. He or she should then wait a few minutes and get out of bed to use the toilet.

Parent-awakening programs can be used if self-awakening programs fail. These programs should only be used at the child's request.

- The parent should awaken the child, typically at the parents' bedtime.
- The child must then locate the bathroom on his or her own for this to be productive. The child needs to be gradually conditioned to awaken easily with sound only.
- When this is done for 7 nights in a row, the child is either cured or ready for self-awakening programs or alarms.

Bedwetting alarms have become the mainstay of treatment.

- Up to 70-90% of children stop bedwetting after using these alarms for 4-6 months.
- About 20-30% start wetting the bed again later (relapse), but with persistence this method works for 50-70% in the long run.
- These alarms take time to work. The child should use the alarm for a few weeks or even months before considering it a failure.
- There are 2 types of alarms, audio and tactile (buzzing) alarms.
- The principle is that the wetness of the urine bridges a gap in the sensor, which in turn sets

off the alarm.

- The child then awakens, shuts off the alarm, finishes urinating in the toilet, returns to the bedroom, changes clothes and the bedding, wipes down the sensor, resets the alarm, and returns to sleep.
- Alarms are preferred to medications for children because they have no side effects.
- It is generally believed that all children 7 years and older should be given a trial of an alarm.
- For the alarm to be effective, the child must desire to use it. Both the child and parents need to be highly motivated.

Beware of devices or other treatments that promise a quick "cure" for bedwetting. There really is no such thing. Stopping bedwetting is, for most children, a matter of patience, motivation, and time.

Medical Treatment

After an organic cause has been ruled out, there is no medical need to treat the child. Bedwetting tends to go away by itself. Discuss the treatment options with your child's health care provider; together you can decide whether treatment is right for your child.

Several drug therapies are available.

- These are typically reserved for children who have not stayed dry by using the alarms.
- Adults with bedwetting often take medications. They may have to stay on the medication indefinitely.
- The drugs do not work for everyone, and they can have significant side effects.
- The 2 drugs have been approved by the US Food and Drug Administration (FDA) specifically for bedwetting are desmopressin and imipramine. Others, which are not specifically approved for bedwetting, are oxybutynin and hyoscyamine.

Medical opinion is divided on using drugs to treat bedwetting. Many believe that, since the child will outgrow the bedwetting anyway, the risks outweigh the benefits of taking the drugs.

Medications

Desmopressin acetate (DDAVP) is a synthetic form of antidiuretic hormone (ADH), a substance that occurs naturally in the body.

- It has been in use for bedwetting for about 10 years and is generally the first drug tried.
- This drug imitates ADH in the body, which is secreted by the brain; it increases the concentration of the urine and reduces the amount of urine.
- Its main use is for children who have not been helped by an alarm. It is also used as a stopgap measure to help children attend camps or sleepovers without embarrassment.
- DDAVP comes as a nasal spray or pill and is taken before bedtime.
- The dose is adjusted until effective. Once it is working, the dose is tapered if possible.
- Side effects are uncommon but include headache, runny nose, nasal stuffiness, and nose

bleeds.

Imipramine (Tofranil) is a tricyclic antidepressant that has been used to treat bedwetting for about 30 years.

- How it works is not clear, but it is known to have a relaxing effect on the bladder and to decrease the depth of sleep in the last third of the night.
- Initial cure rates range from 10-60%, and it has a relapse rate of up to 80%.
- Side effects tend to be rare with correct dosage but include nervousness, anxiety, constipation, and personality changes.
- It can have toxic side effects if taken improperly or as an accidental overdose. Deaths have been attributed to accidental overdoses.

Oxybutynin (Ditropan) and hyoscyamine (Levsin) reduce unwanted bladder contractions. They help relieve daytime urgency and frequency in addition to uncomplicated bedwetting. The side effects include dry mouth, drowsiness, flushing, heat sensitivity, and constipation.

Surgery

Certain underlying medical or physical conditions may require surgery.

Other Therapy

Bladder training exercises: These are useful for adults with bedwetting or other type of urinary incontinence. They do not usually work for children.

Next Steps

Follow-up

For a child with an underlying medical or emotional cause for the bedwetting, the health care provider will recommend an appropriate treatment for the underlying condition.

- If the treatment recommendations of the provider are followed closely, the bedwetting will stop in most cases.
- Keep in mind that for some underlying conditions, such as anatomical problems or emotional problems, the treatment may be complex and take some time.

Children with uncomplicated bedwetting usually "grow out of it" on their own.

- If you decide to try treatment, try to follow the recommendations of the child's health care provider.
- Relapse rates can be high, but retreatment is typically successful.
- Your child's health care provider will monitor the child's progress periodically. How often depends on how quickly the bedwetting improves and your comfort level with that rate.
- Commitment and motivation are needed if the treatment is to be successful.

Prevention

There really is no way to prevent bedwetting.

Outlook

Bedwetting can damage the child's self-image and confidence. The best way to prevent this is to be supportive. Parents should reassure the child that bedwetting is a common problem and that they, the parents, are confident that the child will overcome the problem.

Every year, 15% of school-aged children who wet the bed become dry without specific treatment.

- Although 15-20% of 5-year-old children wet their beds, only 7% of 8-year-old children wet the bed.
- It is estimated that 1% of adults wet their bed regularly.

It is difficult to estimate the effectiveness of treatment, but cure rates range from 10-60% with drugs to 70-90% with alarms and parent awakening.

- Nearly all bedwetting problems can be cured with single or combination therapy.
- Some people do, however, need to have long-term drug therapy.

Support Groups and Counseling

American Foundation for Urologic Disease
1128 North Charles St.
Baltimore, MD 21201
(410) 468-1800

American Urological Association
1120 North Charles St.
Baltimore, MD 21201
(410) 727-1100

National Association for Continence (formerly Help for Incontinent People)
P.O. Box 8310
Spartanburg, SC 29305-8310
(864) 579-7900
(800) BLADDER (public information)

National Kidney Foundation
30 East 33rd St., Suite 1100
New York, NY 10016
(212) 889-2210
(800) 622-9010

The Simon Foundation for Continence
P.O. Box 835
Wilmette, IL 60091
(708) 864-3913
(800) 23-SIMON (public information)

For More Information

Web Links

American Foundation for Urologic Disease

American Urogynecologic Society (incontinence in women)

National Association for Continence

National Institute on Aging, National Institutes of Health

National Kidney and Urologic Diseases Information Clearinghouse, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health

The Simon Foundation for Continence

Urology Health.org - Public information Web site produced by the American Urological Association and the American Foundation for Urologic Disease

Synonyms and Keywords

bedwetting, bed wetting, bladder control, nighttime incontinence, nocturnal enuresis, primary enuresis, secondary enuresis, sleep wetting, urination, encopresis, stool soiling

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