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Bedwetting[1]

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Bedwetting, referred to as *enuresis* by the medical community, is a common problem in children ages 5–12. It is estimated that 5–7 million children in the United States have a problem with bedwetting at any given time, and about 10% of school-age children in the United States experience bedwetting.

Fortunately, most children grow out of this problem. In fact, only about 1–2% of adults have problems with bedwetting. However, some children develop psychological and behavioral problems related to embarrassment, low self-esteem, and anger stemming from this condition. Parents and siblings often feel frustration, anger, and embarrassment over their attempts to help stop the child's bedwetting. Children may be afraid to sleep over at a friend's home for fear of having an "accident." Thus, while problems with bladder control and bedwetting are relatively common among children and eventually tend to go away, the problem can lead to longer lasting effects on the ways children view themselves and their relationships with others.

Types of Enuresis

- *DIURNAL ENURESIS*: Wetting that occurs during waking hours.
- *NOCTURNAL ENURESIS*: Wetting that occurs during sleep. This is the most common type of wetting. There are two types of nocturnal enuresis:
  1. *Primary Type*: The child is age 5 or older and has never gained full bladder control. In other words, they have not gone more than 3 months without wetting the bed at least twice a week.
  2. *Secondary Type*: Loss of bladder control after the child (or adult) has previously demonstrated bladder control (usually defined as going 3 months without wetting the bed).

Almost twice as many boys as girls wet the bed at night after age 5. By age 7 approximately 15–22% of boys wet the bed on a regular basis, while only 7–15% of girls that age wet the bed. However, more girls wet their pants during the day than boys.

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This report will focus primarily on bedwetting since it is far and away the most common wetting problem. However, it's important to keep in mind that daytime wetting is often treated with many of the same strategies discussed here.

"Problem" Bedwetting

Many parents are not sure how old their child needs to be before their wetting is considered a "problem." Most children will begin to stay dry at night at around the age of three. However, approximately 15 percent of children continue to wet the bed after this age. Parents often become concerned around this age, especially if they begin to notice other same-aged children or siblings who stopped wetting by age three. Yet most of these children require little more than some extra attention and a few changes in their bedtime routine to stay dry through the night.

Most physicians and psychologists agree that bedwetting can be classified as a "clinical problem" if the child is unable to keep the bed dry by age seven. However, many professionals admit that bedwetting becomes a serious problem for the younger child when it begins to impact self-esteem, behavior, and relationships with others. It is often the child's and family member's reaction to bedwetting that determines whether it is a problem or not.

What Causes Bedwetting?

All of the causes of bedwetting are not known. Physicians emphasize that bedwetting is a *symptom,* not a disease. Bedwetting is not a mental problem, learning problem, or behavioral problem. Even children with no history of bedwetting may lose bladder control from time to time. Bedwetting may appear, or increase, when a child is ill. For example, urinary tract infections or certain medications can cause bedwetting in children and adults. In addition, children with diabetes commonly wet the bed when their blood sugar (glucose) levels become erratic. Bedwetting by itself does not mean that a child has diabetes.

Although the reason(s) for bedwetting may be vary from child to child, there are some common reasons why a child might wet the bed:

Bladder size. Kidney or bladder problems are rarely the cause of bedwetting in older children (after age 3–4). However, it appears that some children who wet the bed have relatively small bladders that cannot hold much urine. At times the body's ability to produce urine might outpace the growth of the bladder. If this is the reason for a child's bedwetting, the bedwetting should reduce or go away as the bladder increases in size.

Neurological issues. Some children may have nervous systems that are not sufficiently developed to get the right signal between the bladder and the brain. For these children it is just a matter of time until their brain develops enough to solve the problem. In the past it was thought that some children may be such deep sleepers that they do not wake up when they have the urge to urinate. Recent research does not seem to support this idea, because children who wet the bed seem to have similar sleep cycles to those who do not wet the bed.

Genetics and family factors. Bedwetting appears to run in families. Approximately 75 percent of children who have a wetting problem have a parent and/or sibling who have or have had a similar problem. In addition, the approach parents take toward toilet training their children can cause bedwetting. For example, some parents may adopt an overly punitive strategy for toilet training children. Such approaches can make kids nervous about using the toilet, which may then cause wetting to actually increase.

Hormones. Recent research suggests that some children who wet the bed may lack sufficient levels of an important hormone, *nocturnal arginine vasopressin* (AVP). AVP helps decrease the amount of urine produced at night. This process helps prevent the bladder from overfilling. However, some children who wet the bed do not show this increase of AVP during sleep, and end up producing more urine than their bladders can hold. If the cause of the bedwetting is a lack of AVP, then it is possible to use a medication which can increase the amount of AVP in the body.

Psychological causes. Sometimes bedwetting can be a response to stress, such as an emotional conflict or anxiety that a child is experiencing.

Psychologists and other mental health professionals regularly report that children begin wetting the bed during times of conflict at home or school. Dramatic changes in home and family life also appear to lead some children to wet the bed. Moving to a new town, parent conflict or divorce, arrival of a new baby, or loss of a loved one or pet can cause insecurity that contributes to bedwetting. Often children are not even aware of their emotions and can't believe that there is a link between their feelings and bedwetting.

Many parents mistakenly believe that wetting the bed is their child's way of "getting back at them." It is important to note that **children very rarely wet the bed on purpose, and are usually ashamed of it**. In the vast majority of cases bedwetting is unintentional and children would gladly stop it on their own if they could. After all, few children like to wake up in a wet bed. Parents should be careful never to make a child feel ashamed or naughty for wetting the bed. Rather, they need to encourage the child and praise attempts to remain dry (e.g., praise them when they use the toilet successfully). **Parents should NEVER punish a child for bedwetting.** Punishment almost never works and may actually increase bedwetting as the child becomes more upset, nervous, ashamed, and/or resentful toward parents.

What Should You Do?

See a doctor. If your child is age 6 or over and continues to wet the bed frequently, it is probably time to talk to his/her pediatrician. If your child has never been able to establish bladder control for 3–6 months, there may be medical causes to their problem (e.g., small bladder or too little AVP). If your child is age 3–5 and has recently started to wet the bed after several months of dryness, you may also wish to consult your pediatrician (See *Box*). The rule of thumb is: *Don't make bedwetting a problem, but when it becomes a problem, don't hesitate to take action.* Start by seeing a doctor, who can rule out medical problems.

When to Consult a Doctor
*Your child is 6–7 years old and has never been able to stay dry overnight.
*Your child is troubled by wetting the bed (even if they are younger than 6 years old).
*Your child has begun wetting the bed after several months of staying dry.
*You are troubled and frustrated by your childs bedwetting.
*You are punishing or concerned that you might punish your child for bedwetting.
*Your child wets or soils his/her pants during the daytime
Your child's pediatrician should be able to refer you to someone to treat your child's bedwetting. If your child does not have an identified pediatrician, your local health department or your childs guidance counselor may be able to provide you with a referral.

Some treatment strategies

Once you have consulted with a physician who can screen for physical problems that may be contributing to your child's bedwetting, a treatment choice can be made. The following list describes the most popular treatments for bedwetting.

Scheduled waking

For this strategy, parents typically wake the child periodically (1–3 times) at night and walk them to the bathroom to urinate. The child must attempt to urinate each time, but should not be punished or scolded for failing to do so. The idea is that by waking the child through the night, parents can help "head off" bedwetting episodes. Eventually the time between wakings is stretched until the child can go a full night without wetting the bed.

Limiting fluids

Limiting the amount of fluids at night (especially ones with caffeine) may help prevent bedwetting. However, this practice is not recommended if you're also using other strategies that focus on teaching the child to recognize the sensation that their bladder is full (e.g., scheduled waking or moisture alarms). Also, some experts fear that limiting fluids too much can be harmful to children's health, so it is important to talk to your doctor if you are considering this method.

Exercises and bladder training

Some professionals recommend teaching the child bladder control through a series of "exercises" designed to stretch and condition their bladder. Such exercises include delaying urination a few minutes after the first sensation that the bladder is full (to stretch the bladder) and stopping the urine flow midstream (to strengthen bladder muscles). Although these techniques seem to help adults, there is little to no evidence that these techniques work with children. However, use of bladder training, which helps children get more in tune with bladder sensations and teaches how to empty their bladder thoroughly, seems to be useful for some children, particularly when combined with other treatments.

Medications

Many different drugs have been developed to treat bedwetting. The drug most frequently prescribed to treat bedwetting is *Desmopressin acetate* (DDAVP). DDAVP is a synthetic (man-made) form of AVP that works by substituting for the natural AVP that the body should produce. This treatment may be particularly effective if the child is found to have a deficiency of natural AVP during sleep. DDAVP typically causes the child's body to make less urine, which lessens the risk that the bladder will overfill during sleep. It is given to the child as a nasal spray or in pill form.

Many parents report that DDAVP works quickly to reduce their child's bedwetting, but often it only reduces the frequency of the wetting, and does not solve the problem completely. If it is effective, many doctors recommend slowly taking children off of the drug after three months to determine if they can stay dry without it. Unfortunately, many children resume bedwetting when the drug is stopped. Some doctors restart DDAVP and continue to taper children off it every few weeks to see if they can stay dry. Some parents decide that they can tolerate some bedwetting at home (particularly if its relatively infrequent) and use DDAVP only for sleepovers or summer camp.

Another drug used to treat bedwetting or other forms of enuresis is Oxybutynin (marketed as Ditropan, Lyrinel XL, or Oxytrol). This medication reduces muscle spasms in the bladder by affecting brain receptors. It shows some effectiveness for those bedwetters who have an overactive bladder, but does not seem to be effective for the general population of bedwetters. However, it is a member of the anticholinergic family of drugs, and can cause serious side effects in some people, and those taking this medication should be closely monitored by a physician.

Some of the drugs used to treat bedwetting were originally developed for other purposes, such as treating depression (antidepressants). Imipramine *(Tofranil)* has been used for the treatment of enuresis, although compared to other treatments tends not to be as effective. It has been found to be successful in reducing wetting in approximately 30 percent of cases. Imipramine can be used to treat daytime or night-time wetting. However, as is the case with most drug treatments, antidepressants have not been proven to cure bedwetting in the long run. Even if it is effective the wetting often returns when the child goes off the medication. Another drawback to this approach is that antidepressants are powerful drugs and can have serious side effects, especially in children. Any child using these medications must be under the close supervision of a doctor.

Treating bedwetting with any type of medication is more expensive than using moisture alarms. Costs can range between $10 to over $200 per month, depending on the type of drug and dosage the doctor prescribes. Some, but not all, insurance policies cover the cost of this treatment.

Psychotherapy

Psychotherapy can be an effective treatment for children's wetting problems if their wetting appears to be a reaction to family changes (e.g., birth of a new baby), stressful situations (e.g., school problems), or an emotional or traumatic event (e.g., divorce). Psychotherapy would help the child and family explore what is causing the wetting problem, and teach the child ways to cope with the situation. Mental health professionals often use psychotherapy in combination with other *behavioral strategies* such as moisture alarms or scheduled waking.

So Which Strategy Should We Use?

Choosing the best treatment for your child's wetting problem depends on a variety of personal and lifestyle factors. Research generally supports the use of moisture alarms as the best approach for curing bedwetting in the long term. This approach also eliminates the risk of side effects from medication and is generally the most cost-effective strategy. Using moisture alarms in combination with psychotherapy may be the best option if children are having behavioral or emotional problems along with their wetting problem. However, some families prefer the convenience of medications and their ability to reduce bedwetting relatively quickly (e.g., DDAVP) if they are effective. Such decisions should be made with the guidance of a physician and/or mental health professional who specializes in the treatment of children and is aware of all the treatment options available. Be wary of professionals who recommend only the treatments they can offer without discussing alternatives.

References

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