About 15% of all elementary-school-age children wet the bed, and continued bed-wetting beyond the age of 5 is a problem that should be treated. About 66% of bed wetters are boys. Bed-wetting prevents children from spending the night away from home, and children usually want to stop bed-wetting. These children are not lazy, and they need to be told that bed-wetting is not their fault.

Health care professionals refer to any accidental or uncontrolled wetting as enuresis. Most children achieve daytime control by age 3 and nighttime control shortly thereafter. Failure to learn nighttime control is called nocturnal enuresis or bed-wetting. All children with wetting problems, especially those who wet during the day, need a medical evaluation that includes testing for infections or other physical problems. Most enuretic children wet only at night, and only about 1 out of 20 have medical problems that require treatment.

Bed-wetting runs in families and may be partly hereditary. Parents often think that they caused bed-wetting. This is almost never the case, and parents need to be reassured that bed-wetting is not their fault.

The idea that bed-wetting will simply go away if you are just patient and wait long enough is misleading. About 1 out of every 7 or 8 children who wet the bed will be dry a year later if nothing is done. It can take more than 3 years for bed-wetting to stop without treatment. Waiting for a child to outgrow the problem is not usually a good idea, because the child’s self-esteem will suffer. Effective treatments are now available.

Theories About Causes of Bed-Wetting

Delays in Physical Maturation

Enuretic children often have smaller functional bladder capacities. They void smaller amounts than children who can remain dry at night. Some evidence suggests that at least some bed-wetting children also produce less anti-diuretic hormone during sleep. This causes them to produce more urine at night.

Deep Sleep

Many people believe that children wet the bed because they are deep sleepers. This theory is not supported by research. Most children are deep sleepers, and enuretic children do not differ from other children in how deeply they sleep. Wetting episodes can occur during any stage of sleep.

Allergies

Food allergies are rarely related to bed-wetting. Children taking medications for allergies may wet more frequently when taking medications. As a general rule, caffeine, which is in many foods, such as soda and chocolate, should be avoided whenever possible.

Emotional Distress

About 66% of bed wetters are boys. Bed-wetting prevents children from spending the night away from home, and children usually want to stop bed-wetting. These children are not lazy, and they need to be told that bed-wetting is not their fault.

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Bed-wetting is distressing to children and parents. Emotional distress is most often the result of bed-wetting, not the cause. Children who have been dry at night for a year or more and then start bed-wetting again may be different. Among these children (about 20% of bed wetters), emotional distress may be a cause of bed-wetting.

**Physical Learning**

Children who wet the bed have not learned how to control the muscles they need to control in order to prevent wetting during sleep. They cannot make the physical response during sleep, and they cannot wake up in the night to go to the bathroom. These responses can be learned with proper training.

**Medication Treatments**

In general, medication treatments produce a temporary reduction in wetting frequency so long as the child takes the medication. When the child stops taking medications, the bed-wetting returns. Medications rarely “cure” bed-wetting. Medications may provide a temporary solution to the problem and enable children to control bed-wetting for short periods of time.

**Imipramine (Tofranil)**

This antidepressant medication is the one most often prescribed. Children typically respond immediately by wetting less often. Some children, however, cannot tolerate the medication and experience side effects such as increased heart rate and elevated blood pressure. Long-term use of imipramine to control bed-wetting should be considered only when other treatments have failed. Care should be taken to avoid overdose, which can be dangerous.

**Oxybutynin (Ditropan)**

This medication reduces bladder spasms. It is most often prescribed as a treatment for daytime wetting and adult incontinence. As a treatment for bed-wetting, there is very little evidence for its effectiveness.

**Desmopressin (DDAVP)**

This is a synthetic form of antidiuretic hormone that is typically administered as a nasal spray before bedtime. Children who respond to this medication do so quickly, and the frequency of their wetting is reduced. Side effects appear to be minimal even over extended periods of use. As with imipramine, children typically return to regular bed-wetting when the medication is stopped.

**Behavior Therapy**

Behavior therapy with a urine alarm is the treatment of choice for simple bed-wetting. Over 50 years of research supports this claim. A permanent solution to bed-wetting can be expected for about 5 of every 10 children treated with a urine alarm.

**Urine Alarm Treatment**
This treatment can be delivered by parents under professional supervision. A battery-powered alarm device used by the child is activated when the child wets. If the sound fails to wake the child, the parents have to wake the child. Repeatedly waking a child immediately after onset of urination teaches the child to control muscles even during sleep. The treatment takes 12 to 16 weeks.

Parents and children need to cooperate to complete the training. The most common causes of failure with this treatment are not waking the child every time the alarm sounds and not continuing the treatment for the full period. The opportunity for success is very high with this equipment (called bell and pad) if it is used under a therapist’s supervision.

**Retention Control Training**

Often referred to as bladder exercises, this daytime practice rewards children for postponing urination (holding) for longer and longer periods up to 45 minutes after the first urge. The exercises often increase bladder capacity. By itself, this training does not stop bed-wetting. However, children who do this along with urine alarm treatment cease bed-wetting faster. Used with the urine alarm, this training is helpful.

**The Problem of Staying Dry**

Not every child who ceases bed-wetting with urine alarm treatment will remain dry a year later. The best solution to the problem of relapse is to prevent it. The most practical way of preventing relapse is called overlearning. This requires the child to drink additional liquids before bedtime and continue using the urine alarm. When this is done, only 1 of every 10 children who cease bed-wetting fail to remain dry. Another solution to relapse is to treat the child again with the urine alarm. This needs to be done as soon as a child starts wetting again even as little as once a week.

**What About Side Effects?**

Available evidence shows that children treated with a urine alarm improve in their self-esteem and peer relations. There are no known negative side effects of urine alarm treatment, only positive ones.

**Who Is Best Suited for Behavior Therapy?**

Children between the ages of 5 and 16 respond well to urine alarm treatments. The treatment is demanding for the whole family. Children with severe behavior problems need help with those problems before starting urine alarm treatment. Single parents and parents with marital problems need special help to carry out urine alarm treatment with a child.

**For more information or to find a therapist:**

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