

# Commonly Asked Questions

## **What is the cause of bedwetting?**

The three factors that predispose to bedwetting include:

1. failure to wake up to the sensation of a full or contracting bladder, referred to as a sleep arousal problem.
2. a bladder that acts too small
3. over production of urine overnight

There are a variety of potential causes for each of these three factors.

All three factors are present in most children with bedwetting. For a successful outcome it is important to identify and specifically treat each of the contributing factors.

Common problems that affect bladder capacity include bladder infection, constipation, and ignoring the signal of the need to void.

Uncommon causes of bedwetting include nerve problems in the bladder (neurogenic bladder), blockages in the urethra (urethral obstruction), and diabetes mellitus.

## **Can deep sleep cause bedwetting?**

About three quarters of the parents who I interview believe that deep sleep is the cause of the bedwetting in their child. Medical studies have shown that children with bedwetting have a problem with arousal from sleep; these children do not wake up normally to the sensation of a full or contracting bladder.

### **How common is bedwetting?**

Bedwetting is very common. About 15% to 20% of five-year old children wet the bed, about 10% of six-year olds, about 4% of ten-year olds, and about 1 or 2% of adults.

### **Can bedwetting cause problems with self-esteem?**

Yes! Bedwetting is a highly emotionally charged problem for most families. Numerous studies have shown that bedwetting can reduce self-esteem. This is an important reason to treat the problem.

### **Can bedwetting be inherited?**

Yes! About half of children we see with bedwetting have a family history of the problem.

Family studies have shown possible bedwetting genes on chromosomes 9, 12, 13, and 21.

### **Is snoring related to bedwetting?**

Snoring is common in pre-school and elementary aged children. Obstructive sleep apnoea (OSA) can cause snoring and bedwetting. Most children who snore do not have OSA. In children with both OSA and bedwetting, treatment of the OSA only cures the bedwetting in some of the children.

### **Is there a relationship between ADHD and wetting?**

Yes! Bedwetting is more common in children with ADHD. Daytime wetting and soiling are also more common in children with ADHD. Treatment of the ADHD is important and will help with the management of the bedwetting. Specific treatment is available for wetting and soiling problems in children with ADHD.

### **Can psychological problems cause bedwetting?**

Psychological problems are more often the result than the cause of bedwetting. However, psychological problems can cause bedwetting. In this situation the child usually develops bedwetting after a prolonged period of dryness and the onset of the bedwetting and the psychological problem are linked. Studies have shown that the longer the duration of dryness before a child starts to wet the bed, the more likely that a psychological cause might be identified.

### **Can bedwetting be cured?**

Yes. Most children with bedwetting can be cured. However, dryness can take time.

### **When will my child outgrow the bedwetting?**

Bedwetting resolves with time or treatment in the majority of children. A follow-up study in the United Kingdom during the sixties showed that about 15% of children who wet the bed became dry every year.

Parents should not wait for their child to outgrow the bedwetting. Modern treatment can lead to earlier dryness and a better quality of life.

### **What is the cause of daytime wetting?**

There are many causes of daytime wetting. Some of the most common causes are ignoring the signal of the need to void, bladder infection, and constipation. Uncommon causes of daytime wetting include nerve problems in the bladder (neurogenic bladder) and blockage of the urethra (urethral obstruction).

### **How common is daytime wetting?**

Daytime wetting is very common. About 20% of five-year olds still have a problem with daytime wetting, about 3% of ten-year olds, and about 1 to 2% of young adults.

### **What is neurogenic bladder?**

Children with a neurogenic bladder have abnormalities in the nerves to the bladder. The most common cause is spina bifida. Injury to the spine is another common cause. Rare causes include tumors and congenital abnormalities of the lower spine.

### **What is the cause of bladder infection?**

Bladder infection is common, especially in girls. The bacteria that cause bladder infection usually live in the bowel and participate in the digestion process. When the bacteria become established in the genital area, they can make their way up into the bladder through the urethra and cause infection. Less than optimal genital hygiene predisposes a child to bladder infection. Bladder infection is more common in children who do not empty their bladder completely. The most common causes of poor emptying an overfull bladder, rushing the voiding process, and poor posture while sitting on the toilet. Constipation increases the risk of bladder infection.

### **Can constipation cause wetting?**

Yes. The rectum, the final part of the bowel, is right next to the bladder. Hard stool in the rectum can press on the bladder, reduce the bladder capacity, and perhaps even precipitate sudden unwanted bladder emptying by day or night.

### **What is the cause of voiding frequently?**

The most common causes of voiding frequently are bladder infection and constipation.

### **What tests are necessary to find out the cause of wetting?**

The only test that is absolutely necessary is to check a urine specimen for infection. Blood tests and x-rays are usually not required.

### **Will my child need x-rays?**

X-rays are usually not required to decide why a child wets by day or night, or how to manage the problem. Less than 5% of children with a wetting problem require an x-ray.

### **Does restricting fluids help with bedwetting?**

Yes. If a child has problems wetting the bed it makes sense not to tempt fate and overdo the fluids in the evening before bed. Sometimes fluid restriction alone might cure the wetting.

### **Does wearing a pull-up help or hurt?**

Wearing a diaper or incontinence pants is a practical approach to the wet sheets, rashes, and odor problems that can develop in children who wet the bed.

Some children who wet the bed might benefit from stopping the pull-up for several weeks; if the wetting improves the child can stay out of the pull-up. If the wetting does not improve and child does not event start to wake up when the sheets are wet and cold, then the child can resume wearing the pull-up.

A child should never be forced to wear a diaper pull-up. Some children consider this a form of punishment. There is no role for punishment in the treatment of bedwetting.

### **Does waking my child before I go to bed help?**

Yes. You don't have to wake your child up to full consciousness. Just make sure that your child gets to the bathroom and back to bed safely. This can result in dry nights and is worthwhile. However, the goal is for dryness without a parent to wake the child.

### **Do bedwetting alarms work?**

Yes. We regularly prescribe bedwetting alarms.

### **How do bedwetting alarms work?**

Bedwetting alarms have a moisture sensor that is placed in the underwear or pajamas to detect the first drops of urine. As soon as the sensor is wet, an alarm is triggered. Alarms can include sound and vibration. Properly used, alarms can help many children with bedwetting.

### **What is biofeedback?**

Biofeedback therapy has gained popularity as a treatment for daytime wetting. Biofeedback therapy helps a child become aware of the state of contraction or relaxation of the external sphincter muscle and the pelvic floor muscles and is considered a first step towards establishing personal control over these muscles and the voiding process. In the simplest form, biofeedback involves the use of the tactile, auditory, and visual senses to assess the state of the pelvic floor muscles.

## **What is DDAVP?**

DDAVP is a synthetic chemical that is almost identical to a naturally occurring chemical, anti-diuretic hormone (ADH), that is made in the hypothalamus part of the brain. ADH controls the amount of urine made by the kidneys. If there is not enough ADH, the kidneys make too much urine.

## **How does DDAVP work?**

Early forms of DDAVP were first used to treat bedwetting in the 1960's. The physicians tried the medication in the hope that if the kidneys produced less urine that the wetting might improve. The wetting did improve in some children and in the 1980's a group of Danish doctors published research that suggested that the levels of ADH were low at night in some individuals who wet the bed. For several years this research seemed to provide an answer for why children wet the bed, but subsequent studies have shown that a low level of ADH at night is only one possible factor that might explain bedwetting.

## **What are the side effects of DDAVP?**

DDAVP has the best side effect profile of all the medications currently available to treat bedwetting. A tablet and a dissolvable melt are available.

A serious and preventable side effect of DDAVP is water intoxication with resultant seizure or other central nervous system symptoms. This side effect is more common with the nasal spray. The nasal spray should not be used. DDAVP limits the amount of urine that the kidney will produce. If a child drinks a lot of fluids while taking DDAVP, the water will build up in the body and change the chemical (sodium) composition of the blood. DDAVP should not be prescribed without specific instructions to limit the amount of fluids that a child drinks on the evenings that they take DDAVP.

The early symptoms of water intoxication include headache, nausea, and vomiting. If these side effects develop while a child is taking DDAVP, the medication should be stopped immediately and the child assessed that day by a physician.

**How does Ditropan (oxybutynin) work?**

Ditropan acts to make the bladder hold more urine and to minimize the sudden involuntary contractions that occur in some children with voiding problems.

**What are the side effects of Ditropan?**

The side effects of Ditropan include blurred vision, dry mouth, flushing of the face, constipation, and moodiness. Ditropan interferes with perspiration and should not be taken during a fever and might need to be discontinued during active play outside in hot climates.

**How does Detrol (tolterodine) work?**

Detrol acts to make the bladder hold more urine and to minimize the sudden involuntary contractions that occur in some children with voiding problems.

**What are the side effects of Detrol?**

The side effects of Detrol include blurred vision, dry mouth, flushing of the face, and constipation.

### **What are the side effects of Tofranil (imipramine)?**

We do not usually recommend Tofranil for the treatment of bedwetting in children. The World Health Organization (WHO) does not recommend Tofranil for the treatment of bedwetting in children. The International Children's Continence Society (ICCS) recommends that Tofranil only be considered as a last resort when other safer options have not resulted in dryness. Tofranil can be fatal if taken as an overdose and is one of the top five medications that cause death by overdose each year in the United States. Side effects are more common with Tofranil than with the other available medications.

### **What is clean intermittent catheterization (CIC)?**

CIC is an important treatment for children with neurogenic bladder and other serious bladder problems associated with poor bladder emptying. The consequences of poor bladder emptying include bladder infection, damage to the kidneys, and wetting.

CIC requires that the child or a caregiver place a plastic catheter in the bladder about four times a day. This sounds awful, but after good teaching and with practice, the procedure is simple, quick, well tolerated, and can make a big difference.

### **Will my child need surgery?**

Very few children require surgery for day or nighttime wetting. Many years ago it was common practice to "widen" the urethra in children with wetting problems. This procedure is no longer recommended.