Bedwetting (Nocturnal Enuresis)

Bedwetting is common. In time, most children become dry at night without any treatment. However, an option is to use treatment which promotes dry nights sooner rather than later. Treatment is considered for children aged 5 years and over.

What is bedwetting?

Bedwetting (nocturnal enuresis) means a child passes urine in the night when they are asleep. Many parents expect children aged 3 years to be dry at night. Although many children are dry at this age, it is common to need nappies at night until school age. However, even beyond this age, bedwetting is common. Up to 1 in 5 children aged 5 years, and 1 in 10 children aged 10 years wet their bed at night. Bedwetting is still considered normal in children under the age of 5 years.

A child who has never been dry at night has primary nocturnal enuresis. A child who has had at least six months of dry nights but then develops bedwetting, has secondary nocturnal enuresis. Bedwetting is more common in boys than it is in girls.

What causes bedwetting?

In most children there is no specific cause. Bedwetting is not your child’s fault. It occurs because the volume of urine produced at night is more than your child's bladder can hold. The sensation of a full bladder does not seem to be strong enough to wake up your child at night. As your child develops and grows, the amount of urine produced at night gets less, and they become aware that they need to wake in the night if their bladder is full. So the problem goes away eventually in most children.

Some factors are thought to make bedwetting worse or more likely. Some of these factors are always there; others may tip the balance in some children on some nights. Risk factors include the following:

- **Times of stress** may start up bedwetting again after a period of dryness. For example: starting school, arrival of a new baby, illness, bullying, and maltreatment.
- **Drinks and foods that contain caffeine.** These include tea, coffee, cola and chocolate. Caffeine increases the amount of urine made by the kidneys (it is a diuretic).
- **Constipation.** Large stools (faeces) in the back passage (rectum) may press on and irritate the back of the bladder. In particular, children who have persistent (chronic) constipation are more likely to have a bedwetting problem.
- **Weight.** Bedwetting is more common in children who are obese.
- **Family history.** Children whose parents had a problem with bedwetting when they were young are more likely to have the same problem.
- **Children with attention deficit hyperactivity disorder (ADHD)** have an increased risk of having a bedwetting problem.
- **Children with delay in development** caused by serious physical conditions such as Down's syndrome or cerebral palsy often have a delayed ability to become dry at night.

**Other specific medical causes** of bedwetting are rare. For example, a **urine infection**, **pauses in breathing whilst asleep (sleep apnoea)** due to an obstructed airway, **diabetes** and rare disorders of the bladder may cause bedwetting. A specific medical cause is more likely if daytime wetting occurs in addition to bedwetting. A doctor can usually rule out these causes by examining the child and testing a urine sample. More tests to check for rare bladder problems may be needed in children who have daytime wetting.
The following are some general tips that may help

Nappies
If you decide ‘now is the time’, then stop using nappies. Some older children are still put in nappies at night when trying to be dry. This gives them little motivation or need to be dry. The risk without nappies is wet beds for a while. However, in younger children, if a trial period without nappies does not work out, then go back to nappies for a while and try again at a later date. Nappies or pull-up training pants may take the pressure off you and your child if they are just not ready yet.

Patience, reassurance and love
As mentioned above, if trying without nappies fails at age 3 years, it may be wise to give up for a while and then try again a few months later. Treatments are not normally needed or advised for children under the age of 5 years. Keep trying every few months until successful. Even if your child is bedwetting when he or she starts school, there is a high chance that it will stop soon. There is a great variation in when children become naturally dry at night.

Do not punish children for bedwetting. It is not their fault. Rather, they should be praised and made a fuss of if you notice any improvement. Try to be sensitive to any family or school disruption that might be stressful to your child. If bedwetting appears after a period of dryness, it may reflect a hidden stress or fear (such as bullying at school, etc).

Explaining to children
It needs your child's co-operation to be dry at night. As soon as your child is old enough to understand, a simple explanation will help them. If you find it hard to explain bedwetting to your child, visit the website of the Children's Bowel and Bladder Society, ERIC, together. This can be found in the support groups section below. In the "Kids and Teens" tab, there are age-appropriate explanations and pictures for you to show your child.

Child's responsibility
When old enough (about age 5 or 6 years), encourage your child to help change any wet sheets. It may be quicker for parents to do it, but many children respond to being given responsibility. It might also give extra motivation for them to get out of bed and go to the toilet to avoid the chore of changing the sheets. Try to make it a matter-of-fact routine with as little fuss as possible.

Getting up
Make sure there are no hidden fears or problems about getting up at night. For example, fear of the dark or spiders, getting up from a top bunk, etc. Try leaving a night-light and the bathroom light on. In some cases, where getting to the toilet might be difficult in the night, it may be worth trying having a potty by the bed for your child to use instead.

Drinks
Restricting drinks sounds sensible but it does not help to cure bedwetting. The bladder has to get used to filling up and holding on to urine. If you limit drinks all day then the bladder cannot be trained to hold on to larger amounts of urine. A sensible plan is only to give drinks to your child if he or she is thirsty in the 2-3 hours before bedtime. Do not restrict drinks for the rest of the day. Most children should drink about 6-8 cups of fluid a day.

Also, as mentioned above, caffeine in tea, coffee, cola and chocolate may make bedwetting worse. These are therefore ideally avoided, especially in the few hours before bedtime.

Lifting
It is common practice to wake children up to take them to the toilet several hours after they go to sleep. However, this lifting is of little use and it may even prolong the problem. Your child has to get used to waking up when their bladder is full. Children often do not remember being lifted, and lifting usually does not help them to achieve their own bladder control.

However, make sure your child goes to the toilet just before bedtime. If your child does wake in the night then you should encourage him or her to go to the toilet then.
Constipation
If your child is constipated, see a doctor for advice and treatment. Treatment of constipation often cures bedwetting too.

Nights away
A common worry is that staying with friends or relatives will be embarrassing. However, there are a number of ways to handle this. If it is a school trip, speak to the teacher. It is normal for there to be more than one child on a primary school trip who is not dry at night. It may be helpful on school trips or sleepovers for some children to use pull-up pants. You can also speak to your GP about short-term medicines especially used for nights away (see the treatment options below). Bedwetting in young children is common and it shouldn't interfere with their social lives.

Practical measures
Use waterproof covers for mattress and duvet and use absorbent quilted sheets. A moisturising cream is useful to rub on to the skin that is likely to become wet, to prevent chaffing and soreness.

What are the treatment options for bedwetting?
Not using any treatment is an option, as most children will eventually stop bedwetting. However, treatments often work to achieve dryness sooner rather than later. The older a child becomes, the more likely that bedwetting will stop on its own. Treatment options include the following:

Bedwetting alarms
A device called a pad and bell or a similar alarm device is a common treatment. There is a good chance of cure, particularly for children aged 7 years and older. Alarms are effective in two thirds of children who use them. An alarm is usually needed for 3-5 months to condition the child to wake and empty their bladder when it is full. Briefly, the alarm goes off as soon as wetting starts. This wakes the child and prompts him or her to go to the toilet. In time, the child is conditioned to wake when their bladder is full before they begin to wet. Alarms can be bought, or borrowed from your local continence advisor. Your doctor can advise about this. See separate leaflet called Bedwetting Alarms for more details.

Medicines
Desmopressin is the common medicine used for bedwetting. It works by reducing the amount of urine made at night by the kidneys. It usually works well (in about 7 in 10 cases) and straightaway. If it works, a common plan is to take it for three months and then try without it. However, when it is stopped, the bedwetting often returns. (A permanent cure following treatment is more likely with bedwetting alarms than with desmopressin.) Desmopressin can also be useful for short spells of time. For example, during holidays or for times away from home. See separate leaflet called Desmopressin for Bedwetting for more details.

Occasionally other medicines are used by specialists. Imipramine is one such medicine. It can have some serious side-effects, so it is only used occasionally when other treatments have not worked.

Reward systems
Briefly, you agree a reward with your child if he or she achieves a goal. Often the goal is not a complete dry night (as most children who wet the bed have no control over their wetting). An agreed goal could be: going to the toilet before going to bed, getting up and telling the parents they are wet, helping to remake the bed, etc. A goal of a dry night may be appropriate in some cases when the situation is improving. A common example of a reward system is a star chart. This is simply a calendar with a space for each day. A child places a sticky star on each day following a good night (where the goal was achieved). For a poor night (where the goal wasn't achieved), the day is left blank. You may agree a reward for a number of stars. The aim is to give the child motivation to become dry. See separate leaflet called Reward Systems for Bedwetting for more details.

A reward system such as a reward chart (star chart) aims to reward a child for progress. The prospect of rewards may encourage your child to get to the toilet if they are about to wet the bed, and may help to cure bedwetting.
What are reward charts?

A reward system may be useful for a child who wets the bed. Basically, they are calendars with a space for each day. Commonly, a sticky star is placed on a chart (a star chart) each day following a good night. For a poor night, the day is left blank. There are many variations and styles of star chart. Your doctor may give you one. If not - why not make one with your child? Instead of the sticky stars you could colour in different days. For example, red for dry nights, blue for wet ones, yellow for signs of progress. It is a visual reminder to the child of their progress.

A suggested plan

Your child must be old enough to co-operate and to understand what is expected (about the age of 4 or 5 years or above). They should be adapted to the age of your child. It can almost be made into a game. At bedtime, produce the chart to remind your child of progress so far. The following morning, if there has been a good night, make a fuss and have a little ceremony of sticking on the star or colouring in the space. If it was a poor night, do not punish. Say something like "we can try again tomorrow".

The chart should be kept in a prominent place. If progress is good, perhaps comment to others in front of your child about the good chart. However, be sensitive about this so as not to embarrass the child in front of others. Some children may not want others to know about the bedwetting. (If progress is bad, do not make any public comments which will discourage.) Progress need not be just dry nights.

Charts and rewards should not just be about dry nights. Your child may gain a star or point for other signs of progress which you have agreed with your child. These might be for: going to the toilet before going to bed, getting up and telling you they are wet, helping to remake the bed, drinking recommended levels of fluid during the day, etc.

Rewards

A star chart can enable you to make a deal with your child. The deal has to be realistic. If the child wets every night then any sign of progress is worth rewarding. If bedwetting is less often, a full week of dry nights might be the goal. You can give a reward if the child gains an agreed number of points or coloured stars.

Every family has their own idea of what should be a reward for progress. To some children, just the pleasure of being able to stick shiny stars on dry days is reward enough. Other families may prefer to give a special treat - for example, sweets or other goodies. Some parents say that so many points can be cashed in for extra activities. This may be such things as extra swimming trips or a trip to a favourite restaurant.

There are no fixed rules but it is important to keep your word. Whatever your deal, you must keep to it. Your child will become confused and discouraged if things are not consistent. Therefore, do not forget the reward. Also, do not be soft and give rewards when they have not been won. You should never remove reward points from the chart, even after a very bad night. It is important to reward positive changes, but not punish the child for something over which they may have no control.

Research studies have shown that reward systems do help to cure bedwetting in some cases. However, if they don't work, the child may become frustrated at never getting rewards. If no progress is made after a few weeks or so, it may be best to stop and try again in a few months. Or visit your GP to discuss other treatment options.

Reward star chart

For this simple chart, place a sticky star on each day following a dry night.
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A bedwetting alarm is an option to treat children who are wetting the bed at night. Using an alarm reduces bedwetting in about two thirds of children during treatment, and about half the children remain dry after stopping using the alarm.

**What is a bedwetting alarm?**

A bedwetting alarm is a device that wakes a child who wets the bed. There are various types. For example, the mini or body-worn alarm has a sensor which is worn in the pyjamas or pants. The sensor is linked to an alarm (bell or vibration alarm). If the sensor gets wet, it immediately activates the alarm. The pad and bell is similar but the sensor pad is put under your child.

**How do bedwetting alarms work?**

The sensors are usually so sensitive that the alarm goes off as soon as your child starts to wet (pass urine). This wakes your child, who then stops passing urine. Your child should then get up and finish off in the toilet. This conditions your child to wake up and go to the toilet if he or she starts (or is about to start) to wet the bed. In time, your child is conditioned to wake when his or her bladder is full (before wetting begins), or learns to sleep through the night without wetting the bed.

**Where can I get an alarm?**

Your local continence advisor will be able to lend you a device. (There may be a waiting list in some areas.) They will also give instructions on how to use it. Ask your doctor or practice nurse how to contact your local continence advisor. Alternatively, you may wish to buy one. ERIC (see below) has details on devices available.

**How is the alarm used?**

Your continence advisor, or the instructions provided with the alarm, will explain exactly where to place your alarm. There are different types, which are placed differently. Make sure you know exactly how the alarm works. Use it every night until your child has had at least 14 consecutive dry nights. On average, 3-5 months is needed for this.

At first it may be best for an adult to sleep in the same room as your child. The adult can get up with the child, as it might be frightening when the alarm goes off. However, when your child gets used to the alarm, he or she should take responsibility for getting up when the alarm goes off. In time, your child should also be given responsibility for re-setting the alarm after getting up, and for changing any wet sheets or bedding.

**Some possible problems when using bedwetting alarms**

- Sometimes your child just turns off the alarm and goes back to sleep. With some alarms you can place the alarm out of reach so your child needs to get out of bed to switch it off.
- Beware of batteries running low.
- False alarms sometimes occur if your child sweats a lot at night.
- Sometimes everyone else in the home wakes up but not your child! This is unusual. If it happens, wake your child so that he or she switches off the alarm.
How successful are bedwetting alarms?

In children who are old enough to understand (from the age of around 7 years and above) and who are happy to do this treatment, there is a good chance of a cure. This means more than 14 continuous dry nights within 3-5 months of starting to use the alarm. Alarms are not usually used in children aged under 7 years. However, some children aged between 5 and 7 years may be capable of using them.

Using an alarm reduces bedwetting in about two thirds of children during treatment, and about half the children remain dry after stopping using the alarm. Clinical trials and reviews have found alarms to be the most effective treatment for bedwetting.

Following an initial successful treatment, the bedwetting may return (relapse) at some point after treatment stops. If this occurs, a second course of alarm treatment will often work.

Tips for success

Success is more likely in well-motivated children. Motivation is helped by giving your child responsibility for the system, and praising your child for signs of progress.

Complete dry nights do not usually occur straightaway. It takes time to gradually condition your child and their bladder. Signs of progress may include:

- Your child waking and getting up when the alarm sounds.
- Smaller wet patches.
- The alarm going off later in the night or less frequently.
- A dry night.

You should not punish your child if there is no success. If there has been no response at all with the alarm after four weeks then it is unlikely to work for your child. You should see your continence advisor or GP if there have been no signs of progress after a few weeks or so. It is important to keep up contact with the advisor or GP every few weeks during the treatment period. Any problems or adjustments to the treatment programme can be discussed.

The alarms are usually used until your child has 14 dry nights and then they can be stopped. If your child relapses in the future then it may be worthwhile starting again with the alarm.

Alarms can be used with other treatments - for example, the medication desmopressin or with rewards. They can also be used when these other treatments do not work.
Desmopressin is the medicine commonly used to treat bedwetting. It can be used both short-term (for example, for a school trip or a sleepover) and long-term. It works in about 7 in 10 cases.

What is desmopressin?
Desmopressin is the most popular medicine used to treat bedwetting. A dose is given just before bedtime. It comes in two tablet forms:

- A tablet which is swallowed.
- A melt tablet which is put under the tongue to dissolve and go straight into the bloodstream.

The advantage of the melt form is that it is not affected by food in the stomach.

How does desmopressin work?
Desmopressin works by reducing the amount of urine produced in the body at night by the kidneys. This means that the bladder then fills with less urine during the night.

Desmopressin is usually taken at bedtime. Your child should only have sips of fluid from one hour before taking desmopressin until eight hours afterwards (see below).

How effective is desmopressin?
Most children who take desmopressin will have an improvement. This may be fewer wet nights than usual rather than being totally dry every night. It tends to work only when it is taken, so once desmopressin is stopped, the bedwetting comes back. This is why it is mostly used for short periods of time, such as for sleepovers or trips. However, it can be an option for longer-term treatment if other options have not worked or cannot be used.

Alternative medicines are sometimes used if desmopressin is not effective. These are usually prescribed by specialist doctors rather than by your GP.

What are the advantages of desmopressin?
Because of the way it works (reducing the amount of urine being made), it has an immediate effect on the first night of treatment. This can be very encouraging to the child.

If it has had no effect after a few days, it is unlikely to work at all. However, sometimes the initial dose is not high enough. A doctor may advise that the dose be increased if it does not work at first. Also, it is possible that food can affect the absorption of desmopressin tablets into the body. Therefore, if it has not worked then try giving the dose at least an hour and a half after the child last ate anything. Also, don't give food to your child just before bedtime. Alternatively, you could try the melt (under the tongue) preparation.

What are the disadvantages of desmopressin?
It does not work in all cases. Also, in children where it has worked, when it is stopped there is a chance that bedwetting will return. A permanent cure following treatment is more likely with bedwetting alarms than with desmopressin.

When and how is desmopressin used?
Treatment with a bedwetting alarm is currently recommended to be used as a first-line option. However, desmopressin is recommended first-line for children who require a rapid response or short-term control of bedwetting (for example, for sleepovers or school trips). Desmopressin is used because it has a faster response rate than using an alarm. If it is used for short-term control, it is usually recommended to take it daily from around a week before the occasion for which it is needed. This gives time to assess how effective it is.
Desmopressin is generally used only in children aged over 7 years; however, sometimes it is used in children a year or two younger. It is not used in children under the age of 5 years. Children aged 5-7 years may be given desmopressin if they are not yet considered to be mature enough to use a bedwetting alarm. It can also be used as an alternative to an alarm. Some children have desmopressin in addition to using the alarm.

If it works, it can be continued for a while. If there has been a response after four weeks then it is usually given for a total of three months. It is then stopped for a week to assess the effect and to see if it is still needed. If there is only a partial response, the dose may be increased (and also be given one to two hours before bedtime). It should then be continued for another six months. However, if there is no response after four weeks then the treatment is usually stopped. Sometimes it is recommended to try taking it one or two hours before bedtime to see if this works.

Desmopressin can also be useful for short spells. For example, it may be especially helpful for holidays or times away from home (sleepovers, etc). It may also give encouragement to a child, who is fed up with bedwetting, to have a period of dry nights.

Are there any side-effects with desmopressin?

Side-effects are rare. Possible side-effects may include headache, feeling sick and mild tummy pain. These side-effects are not serious and go away if the treatment is stopped.

The most serious possible side-effect is due to the way the medicine works - it reduces the amount of urine that is made. Very rarely, this can lead to fluid overload (too much fluid in the body). This may lead to convulsions and serious problems. It has to be stressed that this is extremely rare and unlikely to happen. However, as a precaution, it is advised that when your child takes desmopressin:

- He or she should not drink too much in the evening. Normal amounts to ease thirst are fine, but not extra drinks for pleasure, such as cans of lemonade.
- He or she should not drink more than one regular cup of water (about 240 ml) from one hour before taking desmopressin to eight hours afterwards.

In effect, this means if your child is thirsty in the night, they should have small sips of water only.

Also, do not give desmopressin to a child who has diarrhoea or is being sick (vomiting) until the illness has cleared. Children with diarrhoea and vomiting should be given plenty of fluids.

How to use the Yellow Card Scheme

If you think you have had a side-effect to one of your medicines, you can report this on the Yellow Card Scheme. You can do this online at the following web address: www.mhra.gov.uk/yellowcard.

The Yellow Card Scheme is used to make pharmacists, doctors and nurses aware of any new side-effects that your medicines or any other healthcare products may have caused. If you wish to report a side-effect, you will need to provide basic information about:

- The side-effect.
- The name of the medicine which you think caused it.
- The person who had the side-effect.
- Your contact details as the reporter of the side-effect.

It is helpful if you have your medication and/or the leaflet that came with it with you while you fill out the report.

Further reading & references

- Bedwetting in under 19s; NICE Clinical Guideline (October 2010)
- Bedwetting (enuresis); NICE CKS, October 2014 (UK access only)


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