ANSWERS TO PARENTS' MOST FREQUENT QUESTIONS ABOUT BEDWETTING

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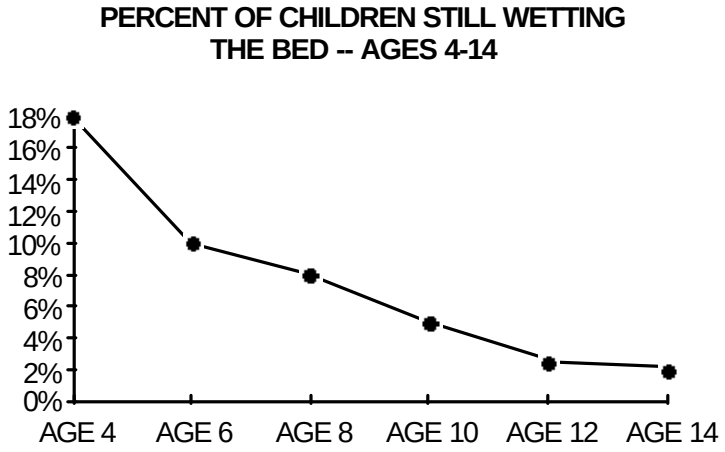
No two children are exactly alike, and no two parents ever ask quite the same questions about bedwetting. Still, certain issues of concern to parents are repeatedly raised. After 25 years of experience, the following stand out as the most frequently asked questions.

HOW MANY CHILDREN WET THE BED?

Millions! Bedwetting is one of childhood's most common difficulties.

Most children stop wetting the bed all by themselves sometime during the first twelve to eighteen months after they are toilet trained. The majority of children become consistently dry at night some time between their third and fourth birthdays. Children who continue night-time wetting after this age are considered to be enuretic -- the medical term for a bedwetter.



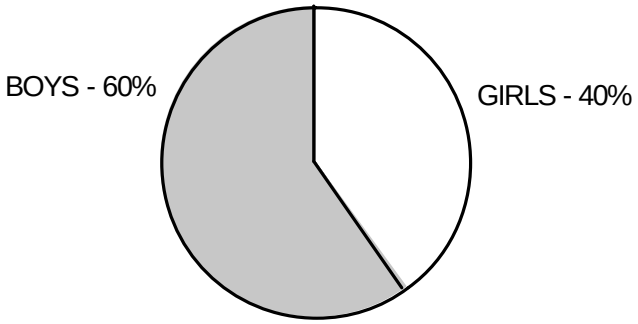
Parents are surprised to learn that about 18 percent of all four year olds still frequently wet the bed. Similarly, it is not widely known that 11 percent of all six year olds are enuretic. A large number of children continue wetting on through elementary school and some continue even into the teen years. Between one and a half to two percent of all teenagers still wet the bed.

Frequently a child will think that he or she is "the only one" still wetting the bed. It is comforting for both parent and child to learn how common this problem really is.

DO MORE BOYS OR GIRLS WET THE BED?

At all ages, more boys than girls wet the bed,. About 60 percent of all bedwetters are male. No specific explanation has been found for this difference between the sexes. Boys tend to have more problems in many areas of physical development, and generally lag behind girls in nervous system maturity. Enuresis is just another example of this contrast.

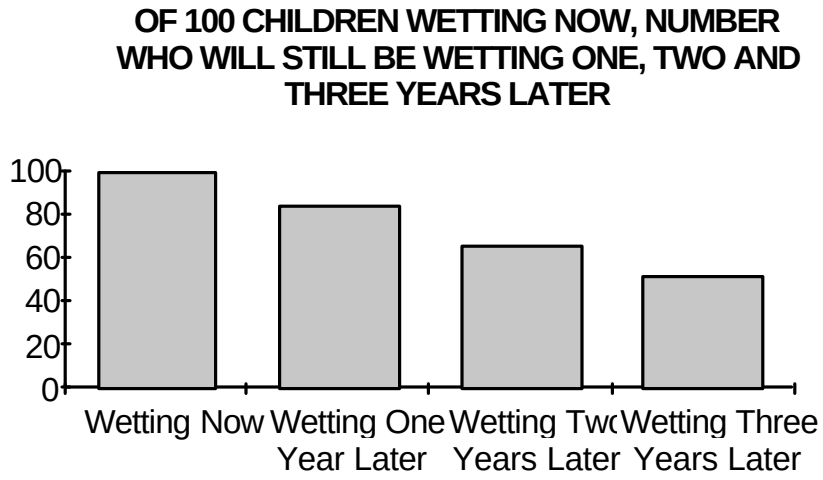
PERCENTAGE OF BEDWETTERS BY GENDER



Most enuretics have never been consistently dry at night. However, a substantial minority, about 15 percent, have remained dry for three months or longer only to began wetting again. This is often very disappointing to the child, and frustrating for the parent who thought the problem was finally gone. The reasons for this pattern will be discussed later in this section.

PEOPLE TELL ME THAT IF I WAIT, MY CHILD WILL STOP WETTING ALL BY HIMSELF. ARE THEY RIGHT?

Most bedwetters eventually stop with no treatment at all. Each year, about 16 percent of all bedwetters stop wetting, even if their parents do nothing special about the problem. This means that, untreated, any given enuretic child has almost a 50/50 chance of becoming dry within three years. For example, if the child is eight, he or she has almost a 50% chance of being dry by age eleven. Unfortunately, the converse is also true -- there is slightly more than a 50/50 chance that he or she will still be wetting the bed at that age.



The rate of recovery without treatment is fairly consistent, so a six-year-old and a sixteen year old both have roughly the same chance of stopping over any given period of time. However, the emotional impact of enuresis changes as children grow older. While it may be quite reasonable to let a four- or five-year-old wait to outgrow bedwetting, it is much more difficult to expect teenagers to wait, especially when something effective can be done to help them.

IS SOMETHING PHYSICALLY WRONG WITH MY BEDWETTING CHILD?

If you have discussed the bedwetting with your child's physician in the past and have been told that there are no physical problems, you can confidently proceed with behavioral treatment.

Bedwetting is only rarely caused by a physical problem, such as defective bladder muscles or disease. When a physical problem exists, other symptoms almost always accompany the bedwetting. (A list of the most common is given below.). Your child's physician should conduct a physical exam and a routine urine analysis to rule out such causes. If nothing abnormal is found on a routine medical examination, it is quite unlikely that a physical problem will be found through more extensive tests and procedures. Only the examining physician can determine what further tests or studies might be necessary.

Because parents are familiar with the child's usual habits and long term patterns, they may note certain symptoms long before a physician may be aware of them. None of these symptoms are sure signs of physical problems. However, if any of the problems listed below exist, they should definitely be reported to your child's doctor.

WHAT ARE THE SIGNPOSTS FOR CONCERN ABOUT PHYSICAL PROBLEMS?

• **Encopresis (passing bowel movements in the pants)** is sometimes related to enuresis. Encopresis is usually caused by chronic constipation. In children, constipation causes increased pressure on the bladder, which can lead to wetting.

• **Wetting during the daytime** occurs more frequently when bladder problems exist. This is especially true if the child "dribbles" urine all day long, producing constantly damp pants instead of occasional big accidents several hours apart.

• **Dark brown or red colored urine**, even if only occasionally present, can be related to bladder and kidney disorders.

• **Complaints of painful urination** often accompany infection or irritations of the ureter, the tube through which urine flows

• **Urinating much more frequently than others of the same age** can be a sign of bladder problems. Extreme urgency of urination (the child often rushes to the bathroom, squats down or pinches himself to stay dry) indicates instability of the bladder muscles.

• **A very weak stream of urine** when voiding (no force in the stream) suggests certain muscular problems.

• **Children who urinate, then frequently need to do so again within a very few minutes** may not be completely emptying the bladder. This can have a physical cause.

• **Children who get up in the middle of the night for a drink of water almost every night, or who drink unusually large amounts of water**, may have kidney problems or associated disorders.

• **Children who have been growing normally and then stop growing** may have kidney problems. Physicians measure height and keep careful graphs in order to recognize this sign of developmental problems.

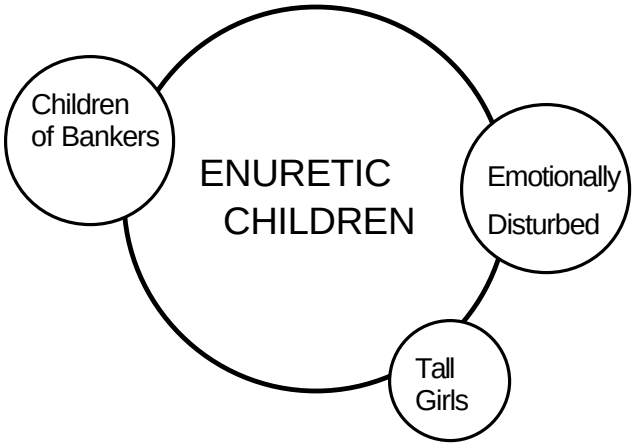
• **Frequent loud snoring, gagging or choking during sleep** may indicate problems with night time breathing, especially if the child frequently becomes sleepy or dozes off during the day. This problem can have major impact on your child's development and school performance.

If you believe that your child has any of these signs for concern, be sure to mention them directly to the physician. Remember, the doctor often must rely on your powers of observation.

ONE OF MY FRIENDS IS TAKING HER CHILD TO SEE A PSYCHOTHERAPIST BECAUSE OF BEDWETTING. DOES THIS MEAN THAT A BEDWETTING CHILD IS EMOTIONALLY DISTURBED?

A very large group of children wet the bed and a much smaller group of children are emotionally disturbed. Some unfortunate children both wet the bed and are emotionally disturbed. However, there is no scientific evidence to indicate that enuresis is caused by emotional disturbance.

Nonetheless, a great deal of mythology has sprung up about the subject, and it is common to read that enuresis is a symptom of emotional disorder. The early followers of Freud were quite convinced that enuresis was an worrisome symbolic act in the child's emotional life. Since their writings have had wide spread influence, It is not surprising that similar ideas are often seen in articles in parent's magazines and newsstand publications. It is also occasionally said that enuresis is more common in children who grow up to be criminals. This idea grows out of a single study done in the late 1950's, which has since been widely discredited. However, many people still believe that it is true.



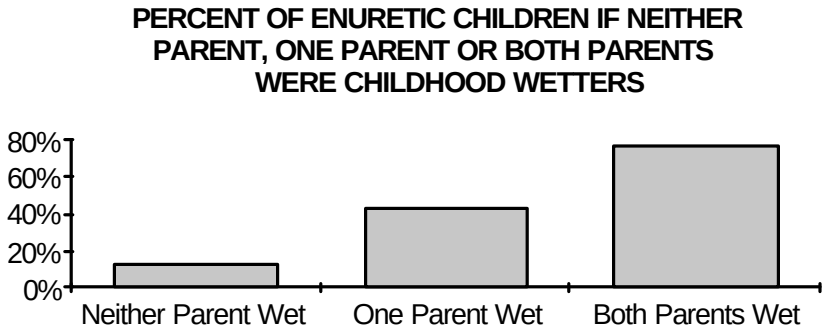
As we now know, a large percentage of all children wet the bed, so bedwetters will be found in any group of children studied. In the children of bankers, one will find a certain number of bedwetters. The same can be said for tall girls, the children of farmers, major league ball players, Presbyterians and women who like the color blue! Bedwetting is not significantly more common in emotionally disturbed or delinquent children.

A careful and extensive review of the scientific literature shows that psychotherapy has no reliable effect on bedwetting. Perhaps the best that can be said is that therapy does not seem to prevent children from growing out of enuresis.

This is not a surprising finding. Since bedwetting is not caused by emotional problems, there is no reason to expect that psychotherapy should cure it. Psychotherapy is very useful for a variety of problems, but enuresis is not one of them.

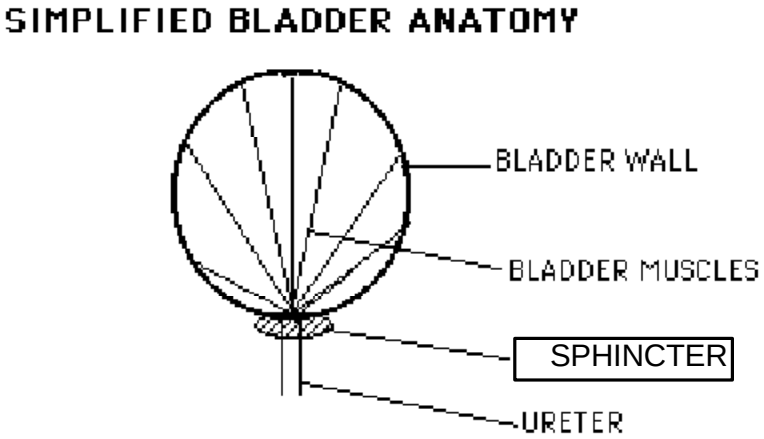
IF MY CHILD DOESN'T HAVE A PHYSICAL OR EMOTIONAL PROBLEM, WHY DOES HE/SHE WET THE BED?

The most common cause of bedwetting is heredity. The strength of the hereditary connection is shown in the figure below. When neither parent was a childhood bedwetter, fewer than 15% of the children will wet the bed beyond age six. If one parent was enuretic, 44% of the children will also be enuretic. If both parents were bedwetters, 78% of the children will inherit the problem!



A number of inherited factors contribute to bedwetting. The first is small bladder volume. On the average, enuretic children can only retain about two-thirds as much urine in their bladders as can non-enuretic children. This may lead to bedwetting because the child simply cannot hold enough to stay dry all night. Fortunately, bladder capacity can be increased through simple exercises described in detail later in this manual. Those exercises are especially important for children who wet several times each night.

A second inherited factor is the level of muscle activity in the bladder. The bladder is more than a simple holding tank with a spigot at the bottom. Composed of muscle, the bladder stretches as it fills with urine from the kidneys. At the bottom is a tube (the ureter), leading to the penis or vaginal opening. This tube is kept tightly shut by a doughnut shaped ring of muscles, called the sphincter, located at the base of the bladder.



When the bladder is filled, its muscles squeeze the walls of the bladder, which increases the downward pressure on the urine. The sphincter tightens to hold in the urine. The bladder muscles usually squeeze gently, allowing plenty of time to get to the toilet. At the toilet, the sphincter relaxes, allowing the urine to flow out of the bladder. The force in the stream is caused by the continued squeezing of the bladder muscles.

Some children have bladder muscles which squeeze very rapidly, and without warning. This condition, known as an unstable bladder, results in very strong urges to go to the bathroom at unpredictable times. Children with this problem often come running in to the bathroom in a big hurry or interrupt movies or auto trips with an urgent need for the toilet. When this intense squeezing happens at night, the sleeping child often wets the bed.

During sleep, a hormone is produced that slows down the production of urine. Some bedwetters do not appear to produce a normal amount of this hormone, so their urine production continues at full speed all night long. This contributes to their difficulty staying dry all night.

Finally, some bedwetters inherit a sleep pattern which can lead to wetting. Contrary to common belief, bedwetters are not deeper sleepers than other children. Within a few minutes of falling asleep, all children quickly enter the deepest sleep of the night, a period lasting about one and a half to two hours. Any child aroused during this period will be disoriented, groggy, and clearly upset at being dragged from sleep. This is the time when the parents of many bedwetters try to get their children up for a bathroom trip. Their experience with very sleepy children during this period of the night has led to the "deeper sleeper" myth.

Nonetheless, one group of bedwetters inherit an abnormally intense arousal of the nervous system as they move from deep sleep into light sleep. Some of them sweat heavily at that point, soaking their pillows, while others may talk in their sleep or even stand up and walk around the room. Children with this kind of intense arousal often wet the bed during the periods of arousal. All three conditions -- bedwetting, sleepwalking and talking in the sleep -- can be caused by the same sleep pattern.

Some important causes of bedwetting are not hereditary. Remaining dry at night is actually a very complex process, requiring the coordination of several groups of muscles. The primary muscle groups involved, the sphincter and bladder muscles, are not under voluntary control. One can neither relax or tighten the sphincter at will. It can only be controlled through automatic reflex action or through a learned habit. This complicated habit learning can be disrupted by stress.

Occasionally children experience a major disruption of their lives at the age when they would normally be gaining night time bladder control (usually between the third and fourth birthdays). Such stresses as an illness, a family move or a new brother or sister can interfere with the acquisition of night time control. Stress at a critical point can disrupt or

prevent the development of the necessary habit patterns and enuresis can continue for years after the stress has passed.

About 15 percent of all enuretic children become dry for extended periods, only to slip back into wetting. Again, a passing stress can interfere with the habits controlling the bladder at night, leaving the child with a renewed wetting problem. This can be especially frustrating to both parent and child, because they often share a mistaken notion that "He could control it if he wanted to. After all, he was dry for two years!" Remember that these children have no more voluntary control of their wetting than children who were never dry at night.

DOES THIS MEAN THAT I SHOULD NOT BLAME MY CHILD FOR WETTING THE BED?

Absolutely. The idea that enuretic children could stop all by themselves if they really tried is a destructive myth. There may be a very few children who actually go to bed and intentionally wet, or who are so "lazy" that they would rather sleep in wet sheets than bother to get up at night. However, of the 2500 or more enuretic children the author has treated, only a few patients can be recalled who were not eager to overcome the problem. One of these was a 17 year old boy who had gone through more than a dozen foster homes and several juvenile institutions. Repeatedly belittled for his wetting, he had simply given up hope of ever having a dry bed. He was finally convinced to try an active treatment program, and he overcame his wetting within a few weeks.

One can easily understand why some parents blame the child. First, many people in positions of authority (including some doctors, nurses, teachers and counselors) firmly believe that the child could overcome wetting through will power. They tell parents that this is so, even though. the scientific evidence has shown that bedwetting is not willful behavior.

Second, many children who frequently wet at home are dry when they sleep at a friend's house or at Grandma's. It looks like they are in control when it really matters, which suggests that they don't care enough to stay dry at home.

In fact, children do not sleep normally if they are not in their own beds. Because of the strangeness of the situation, children often remain uneasy, and do not go into the normal pattern of deep sleep. Many adults notice that they themselves also wake up more frequently when they are sleeping in an unfamiliar bed.

More significantly, some bedwetters will go to amazing lengths to avoid wetting in a situation which might expose their problem to others. Some will sleep with towels stuffed between their legs, or actually stay awake all night rather than risk wetting at a slumber party or an overnight visit. These occasional "successes" make it look as if the child is in control of his/her wetting problem.

Another contributor to the will power myth is the temporary improvement often seen when parents try reward systems. Sometimes parents will offer their children prizes for being dry. The child will stay dry until the prize is earned, only to resume wetting the next night. The author once heard of a child who earned a trip to Disneyland for being dry all week, then fell asleep and wet in the car on the way home! This can frustrate parents who feel as if they have been "taken" by the child.

In fact, children often earn those prizes through heroic efforts to alter their sleep habits. Some will try to stay awake all night, stop drinking fluids after breakfast, or wake up early, sneak the wet sheets into the laundry (or the garbage!) and remake the bed. This kind of effort is just too much to keep up for more than a few nights.

In addition, worry disrupts sleep, and concern about missing out on the prize can prevent restful sleep. Once the prize has been earned, relief and exhaustion lead to resumed sound sleep -- and renewed wetting.

The final source of the will power myth is the angry "I don't care" attitude projected by some bedwetters. They insist that it does not bother them, and say that they would not mind if they wet for the rest of their lives. A few will even actively resist participation in an effective treatment program, and conversations on the topic may end when the child yells, "So leave me alone about it!"

These children have given up. They are often the children most deeply disturbed by the wet beds. But they defend themselves against what can be overwhelming sadness by putting on a hostile "Who Cares" act. Let down by plans and promised cures which did not work, they would rather not risk another disappointment. It can be quite difficult to convince these children to try anything new. It is critical that whatever they do try has a very good chance of being successful.

WHEN IS IT TIME TO TRY TREATMENT FOR BEDWETTING?

It often makes sense to let nature take its course. Among three and four year olds, bedwetting is so common as to be considered normal. Most researchers would not even consider a four year old bedwetter to be enuretic. There is no point to go to great lengths to treat children at this age.

However, there comes a time when wetting starts to be a real problem for the child. This happens at different ages for different children. Usually enuresis turns into a major source of frustration when it begins to interfere with the child's social life. When a child must turn down invitations to spend the night or attend campouts because of wetting, it is time to seek effective treatment.

Some younger children feel terribly humiliated and defeated by wet beds, even when their parents are understanding and supportive. In such situations, it is sensible for parents to begin treatment before the child loses much self-esteem

EVERYBODY I TALK TO SUGGESTS A DIFFERENT APPROACH. WHAT SHOULD I DO?

It is easy to be confused by the variety of opinions one hears. There seem to be a thousand different "remedies" and each carries the endorsement of someone who swears that it cured his or her child. Remember, each year 16 percent of all enuretics stop wetting on their own. If a parent happens to be trying out a new approach when the child spontaneously stops wetting, he or she may quickly conclude that the cure has been found. Only scientific research, conducted on large groups of children, can truly differentiate between effective and ineffective interventions. People have been trying to solve the problem of bedwetting for thousands of years, and some very interesting techniques have been developed.

The very first known writings on the diseases of children were written about 1550 B.C.and they contained a remedy for enuresis, a mixture of one juniper berry and one leaf of cypress in a glass of beer. In the first century, A.D, Pliny the Elder wrote that bedwetting could be cured by giving the children boiled mice in their food.

In America, the Navajo Indians are said to have had the enuretic child stand naked with his legs spread over the burning nest of a Phoebe bird. Other attempts at cure have included prayer, a diet of ground hedgehogs, and the exorcism of evil spirits.

Some remedies have been cruel or even dangerous. In the nineteenth century, a wide variety of treatments emerged in England as the sons of the middle class went off to boarding schools where wet sheets were not tolerated. All sorts of wraps and bandages were applied to the penis -- until reports of gangrene ended the practice. In this century, the author knows a European woman who as a child was forced to sleep in a bathtub because she. It was hoped that this would keep her dry by humiliating her. She slept in the tub for over a year -- and she continued wetting.

Current folk remedies include having the child sleep in cooler pajamas, warmer pajamas or only on the stomach. There is no scientific reason to believe that these tricks are helpful.

The most common approach is to require the child to stop drinking fluids after a certain time in the evening. Although this makes intuitive sense, it doesn't work. The kidneys must continue to produce urine as they clean the blood. This process does not stop if one skips the bedtime glass of water. The body is 90% water, and if the child does not drink, the body will draw the needed fluid from its own tissues.

Some parents are told that their child will be cured by eating pumpkin seeds or by taking vitamin B. Whatever herbal or holistic therapy is in current vogue will often be cited as a cure for enuresis. In the 1980's, L-tryptophan, an amino acid found in milk, was often prescribed by the staff of health food stores. Another fairly common herbal remedy is a pill containing minute amounts of belladonna. Any of these treatments may eventually be shown

to be helpful but none of them have been studied scientifically. It is quite unlikely that they could stand up to rigorous inquiry.

Because of our current concern about food allergies, a variety of special diets have been prescribed for bedwetting. One of the suggestions frequently heard is elimination of milk and other dairy foods from the child's diet. Again, these claims have never been tested in sound research. The growing child's nutritional needs far outweigh any unsubstantiated effect on bedwetting.

NOW I KNOW WHAT DOESN'T WORK. IS THERE ANYTHING THAT REALLY HELPS?

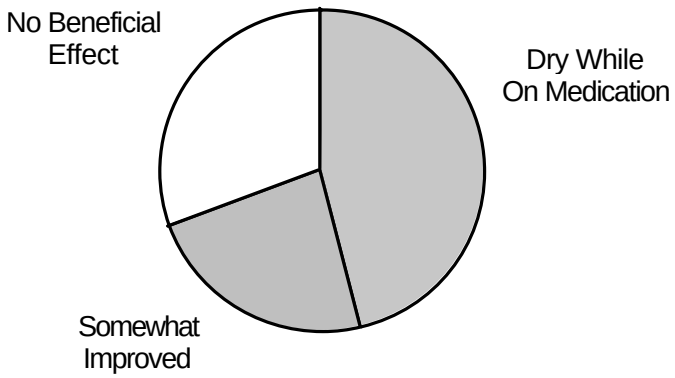
Three therapies have been proven effective by sound scientific research. This manual contains the details of the most effective treatment available. However, it is useful to know about other approaches as well.

IMIPRAMINE

In the United States, the most common treatment for bedwetting is a drug, imipramine. Imipramine is a potent drug which alters chemical interactions within the nerves of the brain, and it is commonly used to treat depression. In fact, its effect on bedwetting was first discovered as a troubling side effect.

Since this discovery, imipramine has been tested in a number of well designed studies and found to be beneficial although not curative. Careful review of these studies shows that between 40 and 50 percent of all enuretics stop wetting completely while they are taking imipramine, between 20 and 25 percent wet less frequently while they are on the drug, and the remaining children do not experience any helpful effect.

EFFECT ON WETTING WHILE TAKING IMIPRAMINE



Unfortunately, about half of the treated children resume wetting at pretreatment levels as soon as the medication is stopped. Most physicians do not recommend using imipramine for more than two to three months, and less than one-third of the children remain fully "cured" after they stop taking the drug.

Imipramine can be associated with other problems. It may occasionally disguise organic disease and therefore should only be used when such disorders have been ruled out by a physician. Also, while side effects are relatively uncommon, certain medication responses may occur which need to be watched by a physician. Some children have strong emotional reactions to imipramine and become either lethargic or hyperactive while on the drug. These effects clear up quickly when the medication is stopped.

Finally, in large doses, imipramine is extremely poisonous. Children taking overdoses have ended up in hospitals with severe and potentially fatal disruptions of heart rhythm. Medical literature has reported cases of children who decided to cure their problem quickly by taking all their medicine at once. Imipramine, like all other medications, must be supervised carefully by an adult.

DDAVP (Desmopressin)

DDAVP is a synthetic hormone. It slows down the production of urine, and increases the likelihood that the child will remain dry during the night. It has largely replaced imipramine as the drug of choice for bedwetting, because it does not have many of the side effects of imipramine.

Unfortunately, as with Imipramine, DDAVP is rarely curative. In fact, the rate of effectiveness of the two medications is very similar. About two thirds of all treated patients show improvement while taking the drug, but most resume wetting when the drug is discontinued. The chart for DDAVP would be almost exactly the same as the chart on the privious page for Imipramine.

DDAVP can be given safely over long periods of time. However, it is quite expensive, and many health plans do not cover the cost. Parents can find the expense – between one and two hundred dollars a month – quite burdensome.

Finally, as with Imipranine, the administration of DDAVP must be closely supervised by an adult. An overdose can be quite serious or potentially life-threatening.

ENURESIS ALARM

A more effective therapy is the enuresis alarm. Devices which detect wetting and wake the child with a buzzer have been available for more than sixty years.

In 1904, a German physician admitted an enuretic boy to the hospital for treatment of extensive burns. This occurred before the development of antibiotics, and in an attempt

to control infection, the nurses changed his bandages whenever he wet . This boy's enuresis was potentially life-threatening. The doctor rigged up an electric alarm to detect the wetting, so that the bandages could be changed more promptly. Much to everyone's surprise, the child quickly stopped wetting.

In 1938 two American psychologists published a study reporting the successful treatment of 30 subjects with a similar alarm. Since then, dozens of carefully controlled studies in more than twenty countries have demonstrated the effectiveness of the alarm method. The treatment is safe, and, contrary to rumors, the child never gets a shock from the device. Since this treatment was developed in America, it is interesting that medication is still usually tried first in the United States, while the alarm is almost always the first method of treatment attempted in Great Britain.

Used alone, the alarm effectively stops wetting in about three fourths of treated children. Treatment often takes from three to six months, and the most common cause of failure is parental burnout -- they simply give up too soon.

The method has a relapse rate of about 20%. If the alarm is quickly reintroduced, relapses can often be handled with little difficulty. Alarms can be purchased at quite reasonable prices from a number of sources. Information on purchasing one these alarms can be found at the back of this manual.

Bedwetting services that advertise in supermarkets and newspaper ads generally consist of little more than the rental of an alarm device. There is nothing wrong with the service they provide. However, they typically charge between $1000 and $2500 to rent an alarm. Since perfectly good alarms can be purchased for under $100, the fees charged by these services seem outrageous.

ALARM AND BEHAVIORAL TRAINING

The final method is a combination of the wetting alarm with behavioral training. Based on the initial work of American psychologists done in the 1970's, the method has been tested and refined in studies around the world. Studies consistently show that more than 90% of all treated children become dry in less than three months!

The program is effective for children five years or older, teenagers and adults. Teenagers, in fact, seem to respond especially quickly, because of their very high motivation for dry beds. They cooperate with the program -- and they do very well.