



# CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

**Subject Nocturnal Enuresis Treatment Services**

**Effective Date ..... 4/15/2011**  
**Next Review Date ..... 4/15/2012**  
**Coverage Policy Number ..... 0044**

## Table of Contents

Coverage Policy .....	1
General Background .....	2
Coding/Billing Information .....	4
References .....	5
Policy History .....	7

## Hyperlink to Related Coverage Policies

- Acupuncture
- Biofeedback
- Chiropractic Care
- Extracorporeal Electromagnetic Stimulation for Urinary Incontinence

### INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2011 CIGNA

## Coverage Policy

Coverage for an enuresis alarm is subject to the terms, conditions and limitations of the applicable benefit plan's Durable Medical Equipment (DME) benefit and schedule of copayments. In addition, an enuresis alarm is specifically excluded under some benefit plans. Please refer to the applicable benefit plan document to determine benefit availability and the terms, conditions and limitations of coverage. Under many benefit plans, coverage for DME is limited to the lowest-cost alternative.

In addition, education, training, and behavioral training are specifically excluded under many benefit plans. An enuresis alarm is considered a behavioral training device and is therefore generally not covered. Please refer to the applicable benefit plan documents to determine benefit availability and the terms and conditions of coverage.

If coverage for an enuresis alarm is available, the following conditions of coverage apply.

CIGNA covers an enuresis alarm under the Durable Medical Equipment (DME) benefit as medically necessary when BOTH of the following criteria are met:

- The child has been thoroughly evaluated, and other causes of nighttime bedwetting, such as infection, have been excluded.
- **EITHER** of the following apply:
  - The child is between age five and six years and has two or more bedwetting episodes per month.

- The child is age six years or older and has one or more bedwetting episodes per month.

**CIGNA does not cover ANY of the following interventions used with or without an enuresis alarm for the treatment of nocturnal enuresis, because each is considered experimental, investigational or unproven for this indication (this list may not be all inclusive):**

- acupuncture
- chiropractic services
- comprehensive programs (e.g., nocturnal enuresis correction)
- extracorporeal magnetic innervation (ExMI)

---

## General Background

Enuresis is defined as the repeated, involuntary voiding into the bed or clothing after a person has reached an age at which continence is expected. When it occurs at night, it is termed nocturnal enuresis or bedwetting; daytime incontinence is termed diurnal enuresis (Moser, 2007). Enuresis is defined as primary when the child has never established a six-month period of urinary continence or secondary if the child becomes incontinent after a six-month period of continence (Blum, 2004). For a diagnosis of nocturnal enuresis to be established, a child of five to six years should have two or more bedwetting episodes per month, and a child older than six should have one or more bedwetting episodes per month (Thiedke, 2003). Diagnosis should include ruling out other causes of incontinence, such as infection, diabetes, and urological and neurological disorders. A carefully obtained history, physical examination and urinalysis usually constitute a sufficient evaluation for most children to establish primary nocturnal enuresis (Yeung, 2007).

Current theories suggest that there may be many causes of nocturnal enuresis, including genetic predisposition, bladder capacity, insufficient arginine vasopressin, constipation, psychological factors and sleep disorders (Thiedke, 2003). Simple behavioral and physical interventions are used to treat nocturnal enuresis, and they appear to have a more significant effect than having no intervention (Glazener, et al., 2005). The following interventions are widely used as initial, first-line treatments for families (Moser, 2007):

- teaching families to reward dry nights
- avoiding punishment for wet nights
- lifting or waking the child to void after going to sleep
- responsibility training
- limiting fluids prior to bedtime

Bedwetting alarms are commonly used to treat enuresis in children and adolescents. The various types of alarms include a bell or buzzer; a visual signal, such as a light; or a device that vibrates. The alarm is activated and awakens the child when the sensor becomes moist during voiding. Some of the systems involve a sensor placed inside a pad on the bed which activates the alarm. Newer systems generally have a sensor that attaches to clothing or undergarments. The child is awakened and can then get out of bed to finish voiding in the bathroom. For resolution of nocturnal enuresis, the bedwetting alarm may need to be used for several months. Alarms that provide a shock can cause burns and are therefore not considered safe (Glazener, et al., 2005; Thiedke, 2003).

Medications such as desmopressin and imipramine may be used to decrease the frequency of enuresis or temporarily resolve symptoms until spontaneous resolution occurs.

Other therapies (e.g., acupuncture, chiropractic care, correction programs, extracorporeal magnetic innervation (ExMI) have been proposed for the treatment of bedwetting. Nocturnal enuresis correction programs package educational and motivational treatments with the use of enuresis alarms. Some of these programs are based on the premise that nocturnal enuresis is associated with sleep abnormalities, and therefore offer polysomnographic (PSG) testing. ExMI is thought to increase functional bladder capacity and being investigated for use in children with refractory nocturnal enuresis. These miscellaneous therapies have not been adequately studied in the published peer-reviewed scientific literature for this indication.

## U.S. Food and Drug Administration (FDA)

According to the FDA, enuresis alarms are considered Class II medical devices and are subject to approval by the FDA. The FDA has determined that these devices are exempt from the premarket 510(k) notification procedure, and the manufacturer is not required to supply to the FDA evidence of the effectiveness of the enuresis alarm prior to marketing the device (FDA, 2005). Examples of these devices include, but are not limited to:

- Malem Bedwetting Alarm (Malem Medical, Nottinghamshire, United Kingdom)
- Wetix, Wetless Nights (Z-Pack, Inc., Woodland Hills, CA.)
- Nytone Enuretic Alarm (Salt Lake City, UT)
- Potty Pager (Boulder, CO)
- DRI Sleeper<sup>®</sup> bedwetting alarms (AnzAcare Ltd, New Zealand)

## Literature Review

**Bedwetting Alarms:** A number of studies in the published peer-reviewed medical literature have evaluated the safety and effectiveness of enuresis alarms alone and in combination with medications. These studies have included randomized controlled trials (RCTs) and comparative series with patient populations of 105-505, and follow-up periods up to 24 months (Kwak, et al., 2011; Cutting, et al., 2007; Naitoh, et al., 2005; Fai-Ngo, et al., 2005). Success rates of 59%–79% for alarms as monotherapy and 67%–80% for alarms combined with pharmacotherapy have been reported.

Several Cochrane systematic reviews have been performed to determine the effectiveness of various interventions in the treatment of children with nocturnal enuresis. Glazener et al., (2005) conducted a Cochrane review of randomized or quasi-randomized studies (n=56 studies; 3,257 subjects) examining the use of enuresis alarms. Comparison interventions included no active treatment (control), use of simple and complex behavioral methods, use of desmopressin or tricyclic medications. The outcomes considered were:

- change in the number of wet nights per week during treatment
- number of participants failing to attain 14 consecutive dry nights
- mean number of wet nights after treatment concluded
- number failing to attain 14 consecutive dry nights or relapsing
- adverse events

The evidence suggests that the use of alarm systems reduces the number of wet nights by the end of the course of treatment, and that the effects are generally sustained better than other treatment options for nocturnal enuresis.

**Miscellaneous Therapies:** Very few well-designed studies in the published peer-reviewed medical literature have examined the safety and efficacy of interventions such as acupuncture, chiropractic care, integrated correction programs, and ExMI for the treatment of nocturnal enuresis. Isolated case series with small populations have yielded some positive results for EXMI (Kang, et al., 2007) and one type of correction program (Saldano, et al., 2008).

Bower et al. (2005) performed a systematic review and meta-analysis of trials (n=11 studies) evaluating the efficacy of acupuncture for childhood nocturnal enuresis. All the trials were reported to be of low methodological quality. “Tentative evidence” was found for the efficacy of acupuncture. However, it was noted that evidence from more well-designed studies is needed (Bower, et al., 2005).

A Cochrane review (n=15 RCTs; 1389 children) by Glazener et al. (2005) assessed the effects of complementary interventions on nocturnal enuresis in children, and compared them with other interventions. The quality of the trials was reported to be poor. Interventions studied included hypnosis, psychotherapy, acupuncture and chiropractic. Acupuncture and chiropractic adjustment were both found to produce better results than sham, but these results were from a single small trial for each intervention.

There is insufficient evidence to support the use of these treatments for bedwetting either alone or in combination with an enuresis alarm. The available data does not demonstrate that these therapies are as effective as established treatments.

## Professional Societies/Organizations

According to the International Children's Continence Society's guideline, primary therapies for monosymptomatic enuresis are bladder advice, the enuresis alarm and/or desmopressin. The recommended second line therapies include anticholinergics and in select cases imipramine (Neveus, et al., 2010).

The European Association of Urology and European Society for Pediatric Urology published evidenced-based guidelines on pediatric urology (Tekgul, et al., 2009). In the section on monosymptomatic enuresis, they include the recommendation that, alarm treatment is the best form of treatment for arousal disorder, or a lack of arousal from sleep to void. They note that, "Initial success rates of 80% with low relapse rates are realistic, especially when night-time diuresis is not too high and bladder capacity is not too low."

The Pediatric Society of New Zealand best practice guidelines on nocturnal enuresis state that "enuresis alarm programs are the treatment of choice in motivated children over seven years." The society reports that the initial success of the alarms alone is 65–80%. The alarms are more effective than behavioral motivation and pharmacotherapy (Pediatric Society of New Zealand, 2005).

The American Academy of Child and Adolescent Psychiatry (AACAP) published practice parameter for the assessment and treatment of children and adolescents with enuresis, based on evaluation of the scientific literature and clinical consensus. The practice parameters state that conditioning with an alarm along with behavioral therapies is a highly effective first-line treatment for nocturnal enuresis in cooperative, motivated families. Medication use may be considered if conditioning treatment fails or is not feasible (Fritz, et al., 2004).

## Summary

Evidence in the scientific, peer-reviewed literature suggests that conditioning through the use of bedwetting (i.e., enuresis) alarms provides the best long-term outcome for management of nocturnal enuresis. The literature indicates that the alarm method has the best sustained, long-term efficacy of any behavioral or pharmacological treatment. The role of treatments such as acupuncture, chiropractic care, correction programs, extracorporeal magnetic innervation (ExMI) has not been determined. The effectiveness of these treatments for nocturnal enuresis is unproven.

---

## Coding/Billing Information

**Note:** This list of codes may not be all-inclusive.

### Covered when medically necessary:

HCPCS Codes	Description
S8270	Enuresis alarm, using auditory buzzer and/or vibration device

ICD-9-CM Diagnosis Codes	Description
788.36	Nocturnal enuresis

### Experimental/Investigational/Unproven/Not Covered when used report treatment for nocturnal enuresis:

CPT* Codes	Description
53899	Unlisted procedure, urinary system
97810	Acupuncture, one or more needles without electrical stimulation; initial 15 minutes of personal one-on-one contact with the patient
97811	Acupuncture, one or more needles without electrical stimulation; each additional 15 minutes of personal one-on-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
97813	Acupuncture, one or more needles with electrical stimulation; initial 15 minutes of

	personal one-on-one contact with the patient
97814	Acupuncture, one or more needles with electrical stimulation; each additional 15 minutes of personal one-one contact with the patient, with re-insertion of needle(s) (List separately in addition to code for primary procedure)
98940	Chiropractic manipulative treatment (CMT); spinal, one to two regions
98941	Chiropractic manipulative treatment (CMT); spinal, three to four regions
98942	Chiropractic manipulative treatment (CMT); spinal, five regions
98943	Chiropractic manipulative treatment (CMT); extraspinal, one or more regions
99199	Unlisted special service, procedure or report

**\*Current Procedural Terminology (CPT®) ©2010 American Medical Association: Chicago, IL.**

---

## References

1. American Family Physician. Bedwetting. 2003 Apr. Accessed March 7, 2011. Available at URL address: <http://www.aafp.org/afp/2003/0401/p1509.html>
2. American Urological Association. Enuresis. Reviewed 2010 Feb. Accessed March 7, 2011. Available at URL address: <http://www.urologyhealth.org/pediatric/index.cfm?cat=03&topic=91>
3. Bower WF, Diao M, Tang JL, Yeung CK. Acupuncture for nocturnal enuresis in children: a systematic review and exploration of rationale. *Neurourol Urodyn.* 2005;24(3):267-72.
4. Blum NJ. Nocturnal enuresis: behavioral treatments. *Urol Clin North Am.* 2004 Aug;31(3).
5. Cutting DA, Pallant JF, Cutting FM. Nocturnal enuresis: Application of evidence-based medicine in community practice. *J Paediatr Child Health.* 2007 Mar;43(3):167-72..
6. Fai-Ngo Ng C, Wong SN; Hong Kong Childhood Enuresis Study Group. Comparing alarms, desmopressin, and combined treatment in Chinese enuretic children. *Pediatr Nephrol.* 2005 Feb;20(2):163-9.
7. Fritz G, Rockney R, Bernet W, Arnold V, Beitchman J, Benson RS, et al.; Work Group on Quality Issues; AACAP. Practice parameter for the assessment and treatment of children and adolescents with enuresis. *J Am Acad Child Adolesc Psychiatry.* 2004 Dec;43(12):1540-50.
8. Glazener CM, Evans JH, Cheuk DK. Complementary and miscellaneous interventions for nocturnal enuresis in children. *Cochrane Database Syst Rev.* 2005 Apr 18;(2):CD005230.
9. Glazener CMA, Evans JHC, Peto RE. Alarm interventions for nocturnal enuresis in children. *Cochrane Database Syst Rev* 2005, Issue 2. Art. No.: CD002911. DOI:10.1002/14651858.CD002911.pub2. Date of most recent amendment 23 May 2007.
10. Glazener CMA, Evans JHC. Simple behavioural and physical interventions for nocturnal enuresis in children. *Cochrane Database Syst Rev* 2004a, Issue 2. Art. No.: CD003637. DOI: 10.1002/14651858.CD003637.pub2. Last assessed as up-to-date: November 22. 2005.
11. Glazener CMA, Evans JHC, Peto RE. Complex behavioural and educational interventions for nocturnal enuresis in children. *Cochrane Database Syst Rev* 2004b, Issue 1. Art. No.: CD004668. DOI: 10.1002/14651858.CD004668. Last assessed as up-to-date: March 20. 2008.
12. Glazener CMA, Evans JHC, Peto RE. Drugs for nocturnal enuresis in children (other than desmopressin and tricyclics). *Cochrane Database Syst Rev* 2003a, Issue 4. Art. No.: CD002238. DOI:10.1002/14651858.CD002238. Date of most recent amendment 14 February 2008.

13. Glazener CMA, Evans JHC, Peto R. Tricyclic and related drugs for nocturnal enuresis in children. *Cochrane Database Syst Rev* 2003b, Issue 3. Art. No.: CD002117. DOI: 10.1002/14651858.CD002117. Date of most recent amendment 26 July 2007.
14. Glazener CMA, Evans JHC. Desmopressin for nocturnal enuresis in children. *Cochrane Database Syst Rev* 2002, Issue 3. Art. No.: CD002112. DOI: 10.1002/14651858.CD002112. Last assessed as up-to-date: May 10. 2006.
15. Kwak KW, Park KH, Baek M. The efficacy of enuresis alarm treatment in pharmacotherapy-resistant nocturnal enuresis. *Urology*. 2011 Jan;77(1):200-4. Epub 2010 Oct 13.
16. Moser SE, Bober JF. Behavioral problems in children and adolescents. Enuresis. In: Rakel RE, editor. *Textbook of Family Practice*. 7<sup>th</sup> ed. Philadelphia, PA: W.B. Saunders Co; 2007. ch 33.
17. Naitoh Y, Kawauchi A, Yamao Y, Seki H, Soh J, Yoneda K, et al. Combination therapy with alarm and drugs for monosymptomatic nocturnal enuresis not superior to alarm monotherapy. *Urology*. 2005 Sep;66(3):632-5.
18. National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). Urinary incontinence in children. National Institutes of Health (NIH), pub. no. 07-4095. Oct 2006. Accessed March 7, 2011. Available at URL address: <http://kidney.niddk.nih.gov/kudiseases/pubs/uichildren/>
19. Neveus T, Eggert P, Evans J, Macedo A, Rittig S, Tekgöl S, et al. Evaluation of and treatment for monosymptomatic enuresis: a standardization document from the International Children's Continence Society. *J Urol*. 2010 Feb;183(2):441-7. Epub 2009 Dec 14.
20. Pediatric Society of New Zealand. Best practice evidence based guideline. Nocturnal Enuresis "bedwetting". 2005. Accessed February 27, 2009. Available at URL address: <http://www.paediatrics.org.nz/index.asp?pageID=2145864725>
21. Ramakrishnan K. Evaluation and treatment of enuresis. *Am Fam Physician*. 2008 Aug 15;78(4):489-96.
22. Saldano DD, Chaviano AH, Maizels M. Sustainability of remission of pediatric primary nocturnal enuresis--comparison of remission using Try for Dry vs. non-Try for Dry treatment plans. *Urol Nurs*. 2008 Aug;28(4):263-6.
23. Tekgul S, Riedmiller H, Gerharz E, Hoebeke P, Kocvara R, Nijman R, Radmayr C, Stein R. Monosymptomatic enuresis: Guidelines on paediatric urology. Arnhem, The Netherlands: European Association of Urology, European Society for Paediatric Urology; 2009 Mar. p. 29-31. Accessed: March 10, 2011. Available at URL address: <http://www.guideline.gov/content.aspx?id=14432>
24. Thiedke CC. Practical therapeutics: nocturnal enuresis. *Am Fam Physician*. 2003 Apr;67(7):1499-506.
25. Yeung CK, Sihoe JD, Bauer SB Voiding Dysfunction in Children: Non-Neurogenic and Neurogenic. In: Wein AJ, Kavoussi, LR, Novick AC, Partin AW, Peters CA editors; *Campbell's Urology*. 9<sup>th</sup> ed. Philadelphia, PA: W.B. Saunders Co.; 2007.
26. U.S. Food and Drug Administration (FDA). Center for Devices and Radiological Health. Enuresis alarm. Apr 1, 2005. Accessed February 27, 2009. Available at URL address: <http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=876&showFR=1&subpartNode=21:8.0.1.1.24.3>

---

## Policy History

---

<b>Pre-Merger Organizations</b>	<b>Last Review Date</b>	<b>Policy Number</b>	<b>Title</b>
CIGNA HealthCare	4/15/2007	0044	Bedwetting Alarm for Nocturnal Enuresis

“CIGNA”, “CIGNA HealthCare” and the “Tree of Life” logo are registered service marks of CIGNA Intellectual Property, Inc., licensed for use by CIGNA Corporation and its operating subsidiaries. All products and services are provided by such operating subsidiaries and not by CIGNA Corporation. Such operating subsidiaries include Connecticut General Life Insurance Company, CIGNA Health and Life Insurance Company, CIGNA Behavioral Health, Inc., CIGNA Health Management, Inc., and HMO or service company subsidiaries of CIGNA Health Corporation and CIGNA Dental Health, Inc. In Arizona, HMO plans are offered by CIGNA HealthCare of Arizona, Inc. In California, HMO plans are offered by CIGNA HealthCare of California, Inc. In Connecticut, HMO plans are offered by CIGNA HealthCare of Connecticut, Inc. In North Carolina, HMO plans are offered by CIGNA HealthCare of North Carolina, Inc. In Virginia, HMO plans are offered by CIGNA HealthCare Mid-Atlantic, Inc. All other medical plans in these states are insured or administered by Connecticut General Life Insurance Company or CIGNA Health and Life Insurance Company.