

Nocturnal Enuresis: A Night story of Worry Fear and Shame

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Introduction

Nocturnal Enuresis

Is it a Disease ?

1. Physiological Disorder
2. Emotional
3. Social
4. A family story - Genetic, Parental Trauma, Family Involvement

Nocturnal Enuresis

Terminology

- **Incontinence** - accidentally (involuntary) discharge of urine or Urine leakage
- **Enuresis** - Repeated urination
 - **Diurnal Enuresis**- Day Time
 - Mechanical / inflammatory
 - Behavioral
 - **Nocturnal enuresis**
 - **Primary Enuresis** - Bladder control has never been attained (or attained for less than 3 months)
 - **Secondary Enuresis** - A condition that develops at least 3 months after a bladder control has been attained

Nocturnal Enuresis

Terminology

- **Monosymptomatic enuresis** - only at night or during the day.
- **Polysymptomatic Enuresis** - with additional symptoms such as Diurnal Enuresis, stool leakage, recurrent infections, etc.
- **Infrequent Bedwetting** - up to two wet nights a week.
- **Frequent bedwetting** - more than 3 nights a week - (Higher chance for Nocturnal enuresis in adolescence)

Nocturnal Enuresis

DSM-5

- Repeated voiding of urine into bed or clothes (whether involuntary or intentional)
- Behavior must be clinically significant as manifested by either a frequency of twice a week for at least 3 consecutive months or the presence of clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.
- Chronological age is at least 5 years of age (or equivalent developmental level).
- The behavior is not due exclusively to the direct physiological effect of a substance (such as a diuretic, antipsychotic or SSRI) or to incontinence uncured as a result of polyuria or during loss of consciousness.
- All of the DSM-5 criteria must be met in order to diagnose an individual.
- These symptoms must not be due to a general medical condition.

Specific types: nocturnal (night-time) only, diurnal (daytime) only, nocturnal and diurnal

Nocturnal Enuresis

Important to rule out

- Inflammation - no findings in urine tests
- Physiological damage
- Structural problems or Spine injury
- Structural problems in the bladder
- Diuretic drugs
- Diabetes

Nocturnal Enuresis

Statistics

- 15%-20% of children above the age of 5 (undefined under the age of 5)
- A decrease of 15% per year
- 7-10% until the age of 7
- Among adults 2-3%
- 2 times more common in boys
- 44% if the father has a history of Nocturnal Enuresis
- 42% if the mother has a history of Nocturnal Enuresis
- 77% if both parents have history
- Higher chances in children with ADHD (DSM5)

Nocturnal Enuresis

Statistics

- **Avon Longitudinal Study** - a multi-participant study conducted in the University **Bristol** UK and including 13,973 children showed
 - 30% of children aged 4.5 years are Infrequent bedwetting (Up to 2 night) and 9.5% at age 9.5 years.
 - Children with NE (wet at least twice a week) had lower prevalence rates at all ages but were more likely to persist with the problem over time
 - A child was much more likely to wet the bed if their parents had done so when they were children
 - Boys were three times more likely than girls to still be wetting the bed by the time they went to school
 - **Children with delayed development at 18 months were more likely to wet the bed up to the age of nine**
 - **Children whose parents rated them as having a difficult temperament (e.g. finding it hard to adjust to changes in routines) and behaviour problems (e.g. fighting with other children) when they were 2-3 years were more likely to be bedwetting at 4-9 years.**

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Nocturnal Enuresis

Related problems

- Low self-esteem
- Avoidance of social activities
- Depression
- Sleep disorders (cause and effect)
- Chronic constipation (cause and effect)

Nocturnal Enuresis

Biological factors

- **Increased urine production at night -85%**
 - A decrease in the secretion of ADH-Vasopressin hormone - Antidiuretic hormone
 - Increased drinking before bed
 - Consumption of diuretics (Drugs, Caffeine)
- **Small Bladder 10-15%**
- **Deep Sleep 5%**

Nocturnal Enuresis

ADH mechanism (Vasopressin)

- **Decrease in plasma volume** -> **pressure receptors in the veins**
- **An increase in the amount of salts** -> **osmotic receptors in the brain**
- **An increase in CCK in the small intestine (SI)** - a peptide hormone in the digestive system, responsible for encouraging the digestion of fats and proteins and effects the Vagus Nerve

ADH Secretion:

Hypothalamus (produces) -> **Pituitary** (stores and secretes) -> **Blood** -> **Kidney Nephrons** (reabsorption) -> **less urine**

Nocturnal Enuresis

ADH mechanism

- **Circadian cycle** - Increased secretion of ADH during the day and reduced at night
 - Blood pressure drops - the body retains more fluids.

Nocturnal Enuresis

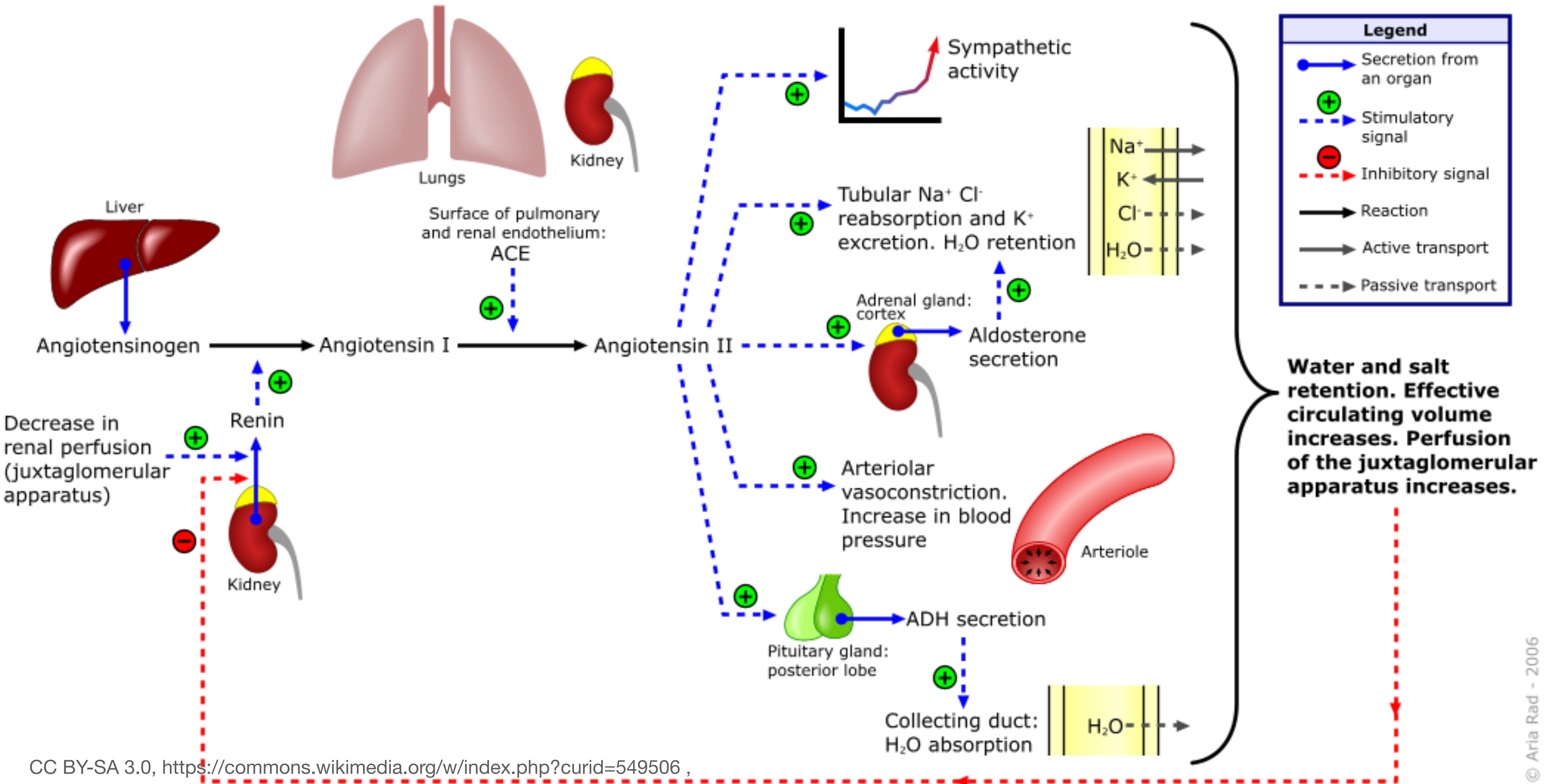
Renin-angiotensin-aldosterone mechanism

Low Blood Volume -> (**Kidney**) Renin-> (**Liver**) Angiotensinogen -> Angiotensin I -> (**Lung**) ACE1 (Angiotensin-converting enzyme) inhibitors -> Angiotensin II ->

1. Aldosterone (**Adrenal**) -> Increased recurrent absorption of nephron water in the kidney into the blood -> Higher Blood pressure

2. Vasopressin (**Hypophysis**) - > **Less fluids in the Bladder.**

Renin-angiotensin-aldosterone system



Nocturnal Enuresis

Additional treatments

- ◆ **Bell or buzzer** - 70% success
- ◆ **Desmopressin** - (Minirin) under the tongue
- ◆ **Training** - Proactive urination

Chinese Medicine

Physiology - Chinese Medicine

Organs and Mechanisms

Kidneys - The Survival biomechanism

- Control of fluid regulation
- Control of the lower orifices
- **Stores the minister's fire**
- **Retention and storage**

- **Lungs - The Regulating biomechanism**
- Control of the upper orifices
- Regulation of fluids:
 - **Holds the fluids in the body**
 - Sends fluids and Qi down to the kidneys
- **Boundaries and Letting go**

Spleen & Pancreas- PI- The Nutritive biomechanism

- First separation of liquids
- Controls the muscle
- **Responsible for the rising Qi (resistance to gravity)**
- **Transformation & Containment**

Physiology - Chinese Medicine

Organs and systems

Liver - The harmonizing biomechanism

- Regulation of all processes (including hormones)
- Regulation of emotions
- The Liver Meridian controls the outer orifices
- **Implementation & Harmony**

Heart - The Unifying biomechanism

- Houses the SHEN
- Enables sleep
- Absorption and interpretation of external stimulations and emotions
- **Unification and orientation**

Mechanisms in Chinese Medicine

Climates and Pathogens

- **Cold**
 - Retention and storage
 - Encourages urination
- **Fire**
 - Metabolism, Separation and Transportation of Fluids
 - Promotes sweating (Cools the Heart) and reduces urination
- **Wind**- Harmonic movement
- **Damp**- Absorption and containment

Mechanisms in Chinese Medicine

Nocturnal Enuresis

Yang problem

- Heating
- Transformation
- Holding
- Separation and Transportation of Fluids



TaiYang



Mechanisms in Chinese Medicine

Tai Yang

- Regulation of **Cold** and **Fire** climates
- Balance of **Water** and **Fire** elements
- Regulates the **Wei Qi**
- **Parental** protection system
- Full of **Qi & Blood**- The Big **movement of Yang** (forward movement)

Mechanisms in Chinese Medicine

Fire- Unity
Ecstasy / Over Joy
(Mania)
Shen
Sweat



Wood -Harmony
Courage/Anger
Hun
Tears



Earth - Transformation
Contemplation / Worry
Yi
Saliva/Digestive Fluids



Metal -Regulation
Nostalgia / Grief
Po



Snot/ Respiratory Fluids

Water-Authenticity
AWE/ Fear
Jing
Urine



Mechanisms in Chinese Medicine

Tai Yang - Regulation of Cold and Fire climates

- **Bl-** Secrets Urine in cold/fear (warms the body)*
 - **Si-** Warms the blood, nourish Heat(Ht) and Fire (Kid)
 - **TaiYang** - Receives and restores the fire to the kidneys by regulating cold
 - **TaiYang** - Turns Fear into Awe by heating the Kidneys
 - Suffers from cold injury (Wind Cold)
 - Too much cold weakens the Qi of the TaiYang
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- **Urine-kidney-** Warms the Kidney
 - **Sweat-Heart-** Cools the Heart

Mechanisms in Chinese Medicine

Tai Yang- Balance of **Water** and **Fire** elements the creation axis

- Authenticity vs Unity
- Shen & Jing
- Mania & Fear

- **Me & World (parents & Family)- My self-esteem**
- **Urination - Territory marking**
 - Fear and low self-esteem - weakens the Bladder (& Kidney) and TaiYang

Mechanisms in Chinese Medicine

Tai Yang - Regulation of WeiQi

- First line of protection of the body from injury and intruders (cold wind)
- Keeps the body warm
- Wei Qi - diffused in the Bladder and organs that are in contact with the outside (not only lungs)
- Wei Qi Enters the body night - the body cools down
- Suffers from weak Wei Qi
- Lung / Bladder- biomedical Clock:
 - When Lung is deficient- Bladder is in Excess

Mechanisms in Chinese Medicine

Tai Yang- Parental energetic system (Wei Qi)

- **Bl- Father -Yang** (**Water** & Metal)
- **Si- Mother -Yin** (**Fire** & **Earth**)
- Full of **Qi & Blood- protection**
- The Big **movement of Yang** (forward movement)
- Suffers from weak Parental energy / Parental crises/conflicts or

Treatment

Mechanisms in Chinese Medicine

Primary Enuresis - Creation axis (Water-Earth-Fire)

- Jing- Congenital /Nature/ Primitive
- **Survival** - hormonal system
- Authenticity vs Unity
- Regulation of cold and Fire
- Parental heredity
 - Vasopressin mechanism

Mechanisms in Chinese Medicine

Secondary Enuresis - Life axis (Wood-Earth-Metal)

- Earth- Acquired /Nurture
- Emotional - worry and fear
- Trauma
- Boundaries & Change
- Parental Energy
 - WeiQi
 - Renin-angiotensin + CCK mechanism

Mechanisms in Chinese Medicine

- **Primary**
 - ShaoYin & TaiYang
 - **Jing** & Shen
- **Secondary**
 - TaiYin & TaiYang
 - **Qi** & Shen

Treat through Transitions

7-8

14-16

Transitions

First Transition Age 7-8

- An illness that will not be expelled through this transition will turn into physical & emotional imbalance

Second Transition Age 14-16

- An illness that will not be expelled through this transition will turn into physical & emotional & personality imbalance.

Julian Scott (P505 #3 addition)

TCM Syndroms

- **Primary**

- **Kidney Jing (Yang) Xu**
 - Kidney Qi not Firm
 - Kid Yin & Yang not harmonize
- **Ht Fire / Empty Fire**

- **Secondary**

- **Sp & Lu Qi Xu**
 - Sp Qi Sinking
 - Kid & Sp Yang Xu

TCM Syndroms

Associated syndromes

- **Damp Heat** in **Liver** Meridian
- **Cold** in **Liver** Meridian
- **LPF**
- **Heart** Fire/Empty Fire

TCM Syndroms

Point selection by Julian Scott

- **Sp6** - Tonifies the 3 Leg Yin
- **Liv8**- Tonifies the 3 Leg Yin (Water point Sedation / **Liv2+3 Moxa**)
- **CV3** - BI Mu point, Meeting of 3 leg Yin, Tonifies lower gate, **Moxa**
- **Cv23**- If there is great thirst
- **Du20**- Sp Qi sinking and heavy sleep
- **Ht7+ Liv3** - Irritability

TCM Syndroms

Point selection

- **Kid7** - Tonify the Kidney Qi & Yang and regulates the water passages
- **Kid9** - *Guest House- Xu-Cleft of YinWei*, Good for transformations in life.
- **Kid4**- Kid Lou point, Fears , Anchors the Qi
- **BL23+Gb25**- Bl Mu&Shu
- **Sp9** - Control the water passages, CoCycle the Kidney&Bladder
- **St36, Sp3, Sp5....**
- **Lu8/Lu9** - Upper water passages, Regulates the Po, Biomedical clock to the Bladder.
- **Liv5**- Luo, Benefits the genitals

TCM Syndroms

Point selection - TaiYang

- **Du4-Du14 Moxa**
- **Si2/3+BI60/62-** Balaces TaiYang
- **BI2** - Pituitary Gland + Moxa
- **BI23+52 - Kid Shu**, Nourishing the Kidney + Moxa
 - Back/Shu points- acourding to the organ + Moxa
- **Gb25-** kid Mu
- **BI32-34** Moxa

Primary

Kid Jing/**Yang**/Qi not firm

- Weak Control of the Lower orifices and water passages
- Types: Kid&Liv Xu Type, Ht Excess Type
- **Key Symptoms:** Weak Constitution (Jing), low self Esteem(Zhi), Frequent urination, Possibly Hyper Active (Heat)
- **Pulse-** Weak, Tight
- **Tongue-** Pale
 - Cold in the lower back

Primary

Kid Jing/**Yang**/Qi not firm

Suo Quan Wan- close the dam

- **Activity:** Warming the Kidney, Dispersing cold
- **Indications:** Frequent urination and incontinence.
- **Yi Zhi Ren 9** - Black Cardamon- Warms Kidney Yang and Spleen Yang (Warm ,Pungent)
- **Wu Yao 6** - Lindera Root -Moves Qi and regulates pain, Warms Kid Yang, Expel Cold (Warm ,Pungent)
- **Shan Yao 9**- Chinese Yam - Tonifies Sp&St, Lu, Kid Qi&Yin (Neutral, Sweet)

Primary

Modification

- **Yi Zhi Ren 9** - Black Cardamon- Warms Kidney Yang and Spleen Yang (Warm ,Pungent)
- **Wu Yao 6** - Lindera Root -Moves Qi and regulates pain, Warms Kid Yang, Expel Cold (Warm ,Pungent)
- **Shan Yao 9**- Chinese Yam - Tonifies Sp&St, Lu, Kid Qi&Yin (Neutral, Sweet)
- **Tu Si Zi**- Cuscuta -Kid Jing, Yin&Yang Xu (Neutral, Pungent, Sweet)
- **Rou gui** - Cinnamon Bark- Kid Yang, Cold (Hot, pungent, sweet) / **An Gui**- Vietnamese cinnamon
- **Wu Wei Zi**- Schisandra -Lung qi, Kid Qi & Jing, **Calms the spirit** (Warm ,Pungent)
- **Sheng Jiang**- Ginger - Mj Cold, Harmonize Ying&Wei (Warm ,Pungent)

Primary

Heart Fire/ Empty Heat

- Constitution
- Emotional stress
- **Key Symptoms:** Sprak in Shen Ming, Restlessness, Very Talkative Sweating (Palpation), ADD/ ADHD, **Body odor, Diurnal (Day Time) Enuresis**
- **Pulse-** Rolling
- **Tongue-** Red

Primary

Heart Fire/ Empty Heat

Treatment

- **Acupuncture :**

- Si7, Ht7/ Ht5, Si Shen Cong

- **Herbs:**

- **Mu Li** - Oyster Shell - Liv yang Ri prevents leakage, calms the spirit (Cool, Salty, Astringent)

- **Mu Tong** - Akebia caulis - Bl Damp Heat, Heart Fire (Cool, Bitter)

- **Huang lian** - Coptis rhizome - Fire Toxic, Heart Fire (Cold, Bitter)

Secondary

Sp & Lu Qi Xu

- Difficult in regulation of Qi Water Passages and Rising Qi
- Types: TaiYin Xu, Kid Xu
- **Key Symptoms:** May come with other illness, Weak limbs, Poor appetite, Loos Stools, History of Lung and Spleen Disorders, **May appear more during/ after Wind attacks**
- **Pulse-** Slow, Weak, Rolling
- **Tongue-** Swollen, Teeth Marks

Secondary

Sp & Lu Qi Xu

Bu Zhong Yi Qi Tang - Tonifies the Middle and augment the Qi decoction

- **Huang Qi 12** - Astragalus root - Sp +Lu Qi, **Wei Qi**, Promotes urination (Warm, sweet)
- **Ren Shen 9** - Ginseng root - Sp&St qi, Lu Qi, Yuan qi, Ht qi, Promotes production of Body Fluids, (Warm, Sweet, Bitter)
- **Bai Zhu 9** - Atractylodes- Sp Qi, Dampness, Promotes urination (Warm, Sweet, Bitter)
- **Zhi Gan Cao 3**- Licorice - Sp&St Qi, Ht&Lu Bld Sts, (Warm, sweet)
- **Dang Gui 6**- Angelica root- Bld Xu & Sts (Warm, Sweet, Bitter, pungent)
- **Chen Pi 6**- Citrus Peel- Sp Qi Xu, Qi Stg, Dampness (Warm, Sweet, Bitter, aromatic)
- **Sheng Ma 3** - Black cohosh- Wind Heat, Heat toxicity, Sp Qi sinking (Cold, Sweet, pungent)
- **Chai Hu 3**- Bupleurum -ShaoYang, Liv Qi Stg, Yang Collapse (Cold, Bitter, pungent)

Secondary

Modifications

Diuretic formula, more for the UJ- need to be strengthened the kidneys

- **Yi Zhi Ren** 9 - Black Cardamon- Warms Kidney Yang and Spleen Yang (Warm ,Pungent)
- **Wu Yao** 6 - Lindera Root -Moves Qi and regulates pain, Warms Kid Yang, Expel Cold (Warm ,Pungent)
- **Shan Yao** 9- Chinese Yam - Tonifies Sp&St, Lu, Kid Qi&Yin (Neutral, Sweet)
- **Dang Shen** 9 - Condonoposis root - Tonifies Sp&Lu Qi, Nourishes Blood, Promotes Generation of Body Fluids (Neutral, Sweet)
- **Tu Si Zi**- Cuscuta -Kid Jing, Yin&Yang Xu (Neutral, Pungent, Sweet)
- **Rou gui** - Cinnamon Bark- Kid Yang, Cold (Hot, pungent, sweet) / **An Gui**- Vietnamese cinnamon
- **Wu Wei Zi**- Schisandra -Lung qi, Kid Qi & Jing, **Calms the spirit** (Warm ,Pungent)
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TCM Syndroms

Associated syndromes

- **Damp Heat** in **Liver** Meridian
- **Cold** in **Liver** Meridian
- **LPF**
- **Heart** Fire/Empty Fire

TCM Syndromes

Associated syndromes

Damp Heat in the Liver Meridian

- Damp Heat that blocks the Liver and irritates the Bladder
- Types: All types
- **Key Symptoms:** Urinary infections, Scanty Urine, Liver Qi Stag Signs
- **Pulse-** Wirey & Slippery
- **Tongue-** Swollen, Heavy Coating
- **Herbs:** Long Dan Xie Gan Tang

TCM Syndroms

Associated syndromes

Cold in the Liver Meridian

- Cold that irritates the Bladder
- Types: All types
- **Key Symptoms:** Pain, Urgency in urination, Liver Qi Stag Signs
- **Pulse-** Wirey **Tongue-** Purple (?)
- **Herbs:**
 - **Xiao hui Xiang** - Fennel - Warms the Kidney, expels cold, Liv Qi Stg, St pain (Warm, Pungent)

TCM Syndroms

Associated syndromes

LPF

- LPF disturbs the flow of water in the body. May come with emotional imbalance
- Types: All types,
- **Key Symptoms:** History of infections, Swollen glands, Unclear ShenMing
- **Pulse-** Full & Slippery
- **Tongue-** Swollen, Heavy Coating
- **Treatment Principle:**
 - **Nourish The Kid, Tonify the Sp, Resolve Phlegm**

Treatment Principal - summary

- **Long and continuous treatment**
 - The treatment in China talks about treatment at a younger age
- **A social need, not a physiological one**
- **Different prognosis between Primary and Secondary Enuresis**
- **Treatment of accompanying conditions:**
 - Self-image, avoidance of social activities, depression
 - Sleep disorders
 - Constipation
 - Diabetes
- **The child's character can change during treatment, children may become more Aggressive**

Treatment Principal - summary

Behavioural :

- Stop drinking in the evening
- Hot and cooked food in the evening
- Nutrition- "Stop the whites" - (dairy products, soy, flours) - cold and full of hormones
- Nutrition- "Stop the blacks" - (caffeine, chocolate, cola) - bitter and diuretic
- Proactive Urination-before bed and before the parents go to bed
- Stop activity that activates the brain before sleep (screens, reading) - takes Qi from the lower abdomen

Training:

- Pee and count to 10 - to make sure the bladder is empty
- Proactive Urination during the day- as part of a daily routine

Additional treatments

- Adaptogen tea: cinnamon, Wu Wei Zi,
- Ginger, Astragalus (SpQiXu)
- Fennel (Cold in Liv)
- Probiotics (Damp Heat)
- Heating bottle, Heating stickers
- Keep away from cold walls/ air conditioners

Emotional

- Secondary- Gradual coping with the trauma
- Resolve conflicts in sleep - me in front of the parents

Summary

- **Treat the Child and not the Problem**
 - The simple doctor - treats the disease
 - The good doctor - prevents disease
 - The Honorable doctor - treats a person
- **Treatment is not just goal-oriented rather person-oriented**
- **Treat the accompanying problems**
- **Accompany the process- “Walk the Walk” with compassion**
- **Believe in treatment**



謝謝
Xièxiè

Stay Gold