Poo and Pee

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So...

- Why did the toilet paper fail to cross the road?
  - Because it was stuck in a crack.
- What are surfers greatly afraid of?
  - Sharts

Contents


Learning objectives...
Everyone to come away with one new thing

Chronic constipation : 3-30% worldwide!!

- Rome 4 Criteria- Childhood Functional Constipation -i.e. behavioral, no organic pathology
- Academically speaking: 2 or more of the following per week for 1 month (infants)/ 2 months (older kids)
  - Motion </= 2x/wk
  - Excessive stool retention
  - Hard or painful defecation
  - Presence of large faecal mass in rectum (DON'T DRE!)
  - History of large diameter bulky stools (blocks the toilet)
  - > 1 episode per week of soiling after toilet training completed without another cause
- Precipitants: change in environment, stressors, change in food, fissures

Constipation:

red (or consideration) flags – ?organic

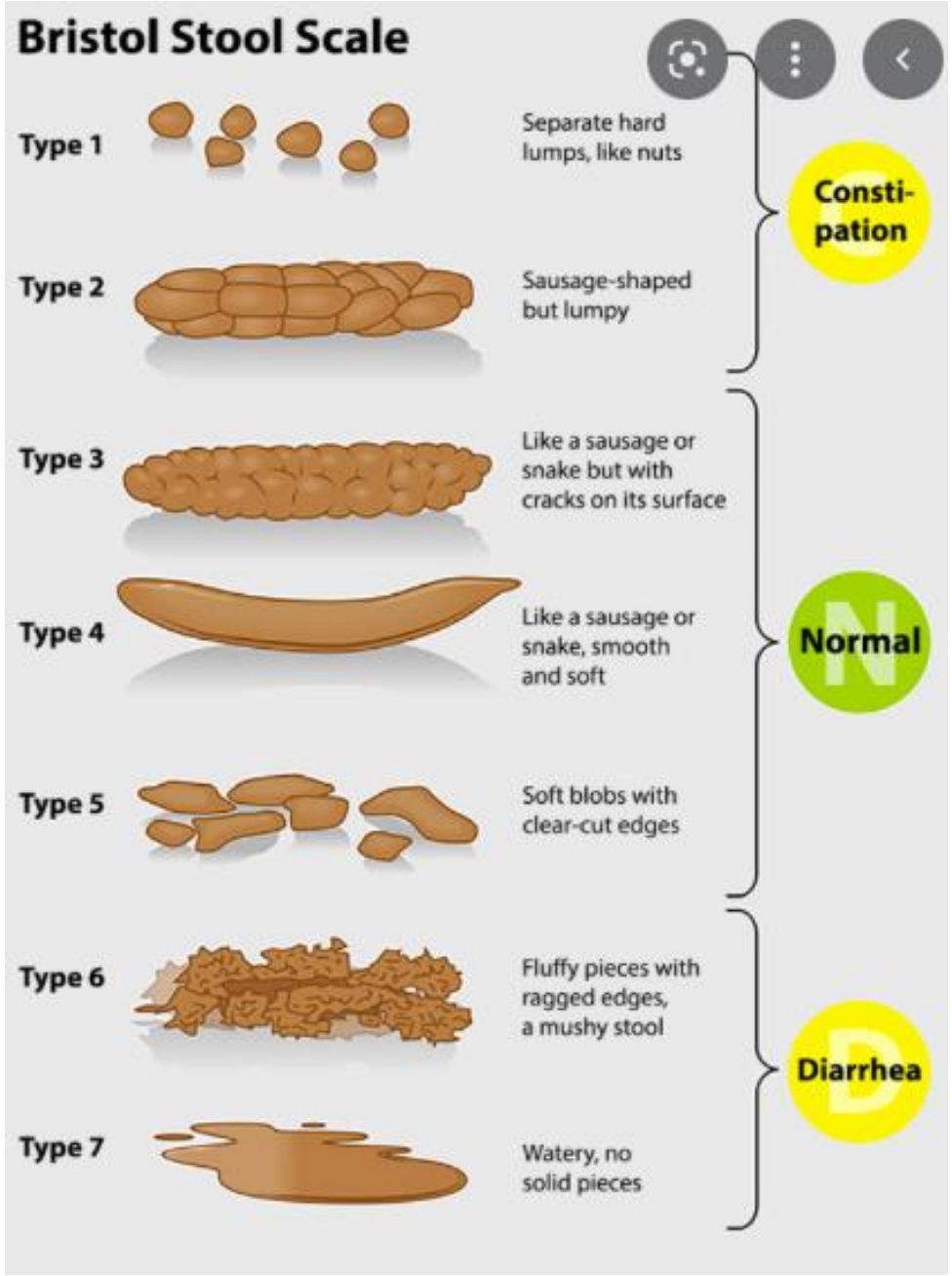
Failure to pass meconium <48 hrs after birth 24 hours	Hirschprung's disease
Onset of constipation (from birth or first weeks of life)	Congenital, mechanical obstruction Meconium ileus
Stool consistency (ribbon/pencil-thin stools)	Anorectal malformation
Bloody diarrhoea	Infection, inflammatory bowel disease, cow's milk protein allergy or soy
Developmental delay	Metabolic or other
Lower limb neurology or urinary incontinence in older child	Spinal pathology
Other physical signs: lethargy, fever, bilious vomiting, rash	Infection, obstruction, metabolic

Constipation – common organic (i.e. non behavioral) causes

- Cows milk (or soy)
- Coeliac disease
- Hypothyroidism
- Hypercalcemia

History

- Rome 4 history
- Red flags
- Cows milk/soy history
- School practices
- Diet and fluid intake
- Toilet posture/timing



Constipation: examination

- H/W
- Abdominal
- Spine and sacrum
- Lower limbs - neurological
- Review peri-anal area NOT DRE!

Constipation:
management

- Dis-impaction: PEG = macrogol = movicol up to one week (RCH)
- Maintenance...

Options...

First line treatment Options- RCH Guideline

- <1 month (?referral) coloxyl drops
- Infants < 12 months: Movicol junior or lactulose
- Children: as above or paraffin oil (lubricant)
- Vaseline for fissures

SCHP webinar: #1 soften (Movicol) HOWEVER if slow transit is thought to be the issue and stool is soft, then start with stimulant

- Softeners: movicol, lactulose (soften and stimulate), ducosate (coloxyl) wets the surface, psyllium husk fibre/metamucil, lubricant (parachoc)
    - *Osmotic laxative lactulose, movicol*
    - *Bulking agents: fibre*
- Stimulant (senna), suppository

Constipation investigations

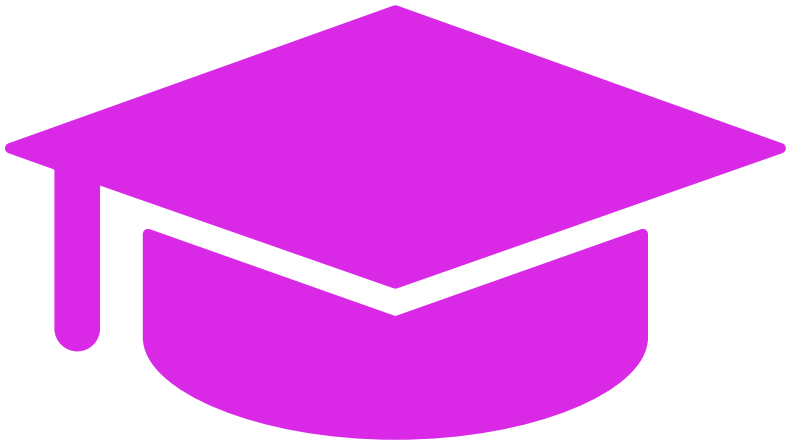
Intractable constipation ...

If constipation persists despite adequate behaviour modification and laxative therapy, consider investigating for less common conditions or refer.

FBC	Coeliac Serology	CMP	TFTs

- Bowel chart/diary
- US for rectal diameter - distension if >2.9cm (if poo-ed within 6 hrs of US can be false negative)
  - International children's continence society recommendation
- Xray - limited use/avoid

Education...



Stop 3:28

Absorb water
Stretches rectum
Poo or not to poo
Balloon stretching
Soiling problems

Over time...

- Lost sense of needing to poo (usu. triggered by stool distending rectum)
  - Slower transit time
    - Harder stools
      - Harder to push
        - ...soiling

How to poo ☺

Children should be encouraged to sit on the toilet for five minutes after meals, up to three times per day. Parents should be advised about making toilet sitting a positive activity, with encouragement and support for the child. 4:47: straighten back, bulge out abdomen

The Continence Foundation of Australia recommends:

- sitting with your knees higher than your hips (use a foot stool or other flat, stable object if necessary)
- lean forward and put your elbows on your knees
- relax and bulge out your stomach
- straighten your spine.

Elbows to knees, a straight back and a footstool - try these tips to make things a breeze in the loo.

Gastro colic reflex

- 20 minutes post meals
- 1 hour post meal
- 10 minutes post meal
- 3 hours post meal

A, B, C... D?

(AFP 2017) For maintenance of soft stools with or without preceding dis-impaction in children with functional constipation, treatment should be continued for AT LEAST....

A. 6 months

B. 1 month

C. 3 months

D. 2 months

➢ If symptoms aren't improving by 6 months then refer (RCH Guidelines- may require tx. for months-years)

Why so long?

- Harder stools → softer
- Harder to push → easier

- Lost sense of needing to poo- relearn
  - Slower transit time - hurry up!

Refer if ...

- Psychosocial impacts: for kid or parents
- Not responding
- Concerned about organic cause

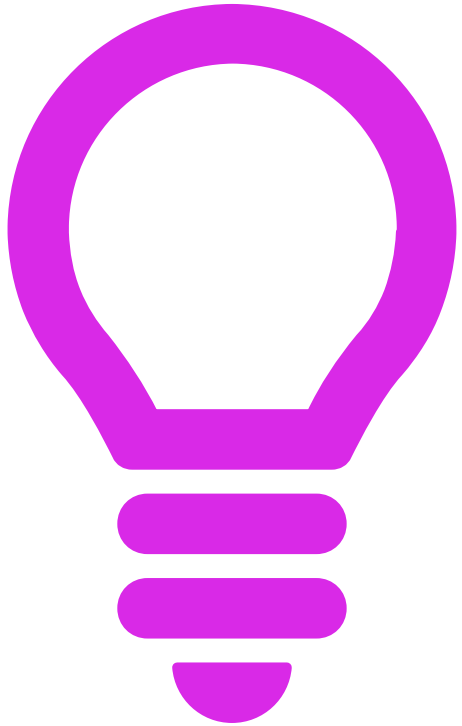
Did you know...

When you hold back a poo and send it back up the line.....your gastrointestinal transit time is sent a signal to slow down!!

Rectal distension is the "ready" signal

Healthy infants (<6 months) can strain and cry before passing soft stools. Unless the stools are also hard, this is not constipation and will self-resolve

Note that children with autism spectrum disorders and attention deficit / hyperactive disorder have an increased risk of functional constipation.



...collective knowledge

Questions?

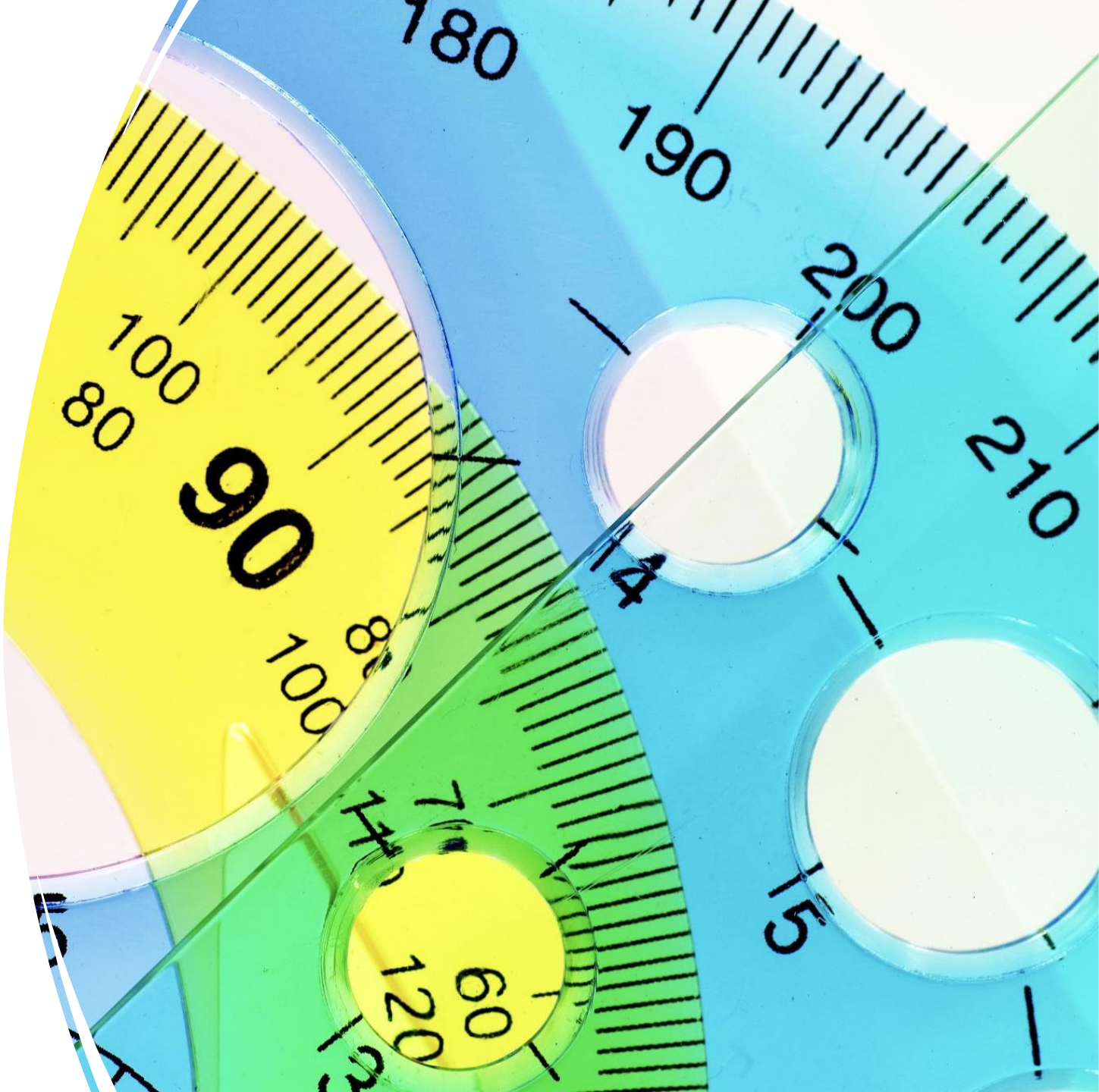
Now to pee!

So...

- Why couldn't the police officers catch the toilet thief
  - Because they had nothing to go on
- Doctor doctor, I think I have a bladder infection
  - I see urine trouble

Definitions...

- Monosymptomatic
- Non-monosymptomatic
- Primary
- Secondary



History: mono/non-mono, 1 or 2dary

Bladder Diary	Keep this diary accurately each day, for at least 3 days (If you can, make these 3 consecutive days) If you have not already spoken to your doctor or continence nurse about a bladder control problem, it could be helpful to take this diary with you to an appointment	**Name**

Day and times passed urine, or times of any **leakage episodes**	**Amount of urine passed**	**Did you feel the urge to go?** Yes/No Urgency 1-10 (10 is severe urge)	**Leakage episodes** Small, Medium or Large) and record **times** in left hand column	**Fluid intake** Note types of drinks & amounts (record total of drinks over 24 hrs)	**Bowel function check** Record day/times when bowel motion passed	**Notes** about when you urinate or leakage happened (eg "when I arrived home and put the key in the door", "when I was out walking ...", "didn't feel like I emptied", or "leaked before I got to the toilet", and similar. You could also list any drinks or foods you suspect might be irritating the bladder, and include comments about your diet or digestion, etc.)

Enuresis: red flags (RCH)

- Acute change ?infection, recurrent UTI's
- Unexplained, persistent secondary enuresis (after >6 months dry) despite adequate management
- Daytime symptoms
- Polydipsia
- Consider comorbidities: diabetes, sleep apnoea, developmental or behavioural problems
- Signs, symptoms or family history renal disease, neurological disease
- Large PVR
- The vulnerable child - psychosocial

Other history

- Pattern
- Bowel habit
- Sleeping arrangements in the family

Exam

- H/W/BP
- Abdominal exam
- Genitalia
- Lower back and spine
- Lower limb neurology

Investigations

- Not routinely recommended
- UA
- US KUB with PVR
- Bladder diary - or volume in and volume out
  - Expected maximum voided volume
    - Prior to adolescence
      - EMVV (comfortable hold) = (age +2) x 30 to max 390ml
  - Nocturnal polyuria
    - If >450mls overnight, then likely reduced ADH secretion (>1.3 x EMVV) to max 450ml

A, B, C... D?

Urinary leak day or night becomes a concern >/= to _____ of age ?

A. 3 years

B. 4 years

C. 5 years

D. 6 years

Nocturnal Enuresis = wetting the bed $\geq$ 2x/wk, for $\geq$ 3 months at $\geq$ 5 yrs of age

Daytime leakage = > once a month for $\geq$ 3 months at $\geq$ 5 yrs of age

However

Treatment for bedwetting is not started until 6 or over as most presentations will resolve naturally by this time


Daytime

Daytime urinary incontinence

- Day wetting in a child over 5 years of age that occurs more than once per month for ≥3 months
- 1 in 10 of 5 year olds

Causes

- Neurological
- Anatomical
- Bladder dysfunction

FIRST: Primary/Secondary

→Mono/Non-Mono

→BLADDER DIARY!!

Condition	Bladder Diary/Findings	Treatment
Voiding Postponement	Urgency - 'wee dance' Reduced voiding (3 or less!) Fluid restriction	Time voiding - alarm watch - wks- month *Need to retrain bladder and brain*
Constipation		
OAB	Urgency Frequency (>6-7x/day) Small bladder capacity (<MVV) Usually, assoc. with constipation No PVR!	Anti-cholinergics: oxybutynin Refer for others TENS
Vaginal reflux	Knees and labia close together, vaginal trapping, urination 5-10 mins later urine comes out, common in pre-pubertal girls	Straddle toilet
Pollakiuria	Excess daytime frequency > 20 times! No nocte symptoms Often caused by stress	Self limiting
Giggle incontinence	Void to completion when laughing, not just leaking	Pelvic floor training and preparation pre-laugh Can refer for medications
Stress Incontinence (rare in kids) - gymnasts		Pelvic floor awareness
Dysfunctional voiding (contracting ext. sphincter and bladder together) Constipation, poor learning, ?neurological abnormality	Large void (MVV) Large PVR → inc. UTI's	Double voiding, relax void and physiotherapy Referral

Pharmacological management for Overactive Bladder (OAB)

Pharmacological management is second line treatment. It should be commenced by local paediatric team or continence service. Behavioural modification should continue throughout treatment

Oxybutynin:
Oral. First-line option.
Ditropan™ 5 mg Tablets*

- **5–12 years**, oral, initially 2.5 mg twice daily; if needed, gradually increase to 5 mg 2 or 3 times daily
- **12–18 years**, oral, initially 5 mg 2 or 3 times daily; if needed, increase up to a maximum of 5 mg 3 times daily

Transdermal route (Oxytrol™ patch- off label <12 yo) can be used if patient can't swallow or can't tolerate oral oxybutynin. Do not cut or divide patches as drug release characteristics may be affected

Practice Points

- Monitor for adverse effects (eg constipation, dry mouth, flushing) and consider laxatives for constipation which may cause or worsen incontinence
- Clinical effect should appear within 2 months
- Treatment will need to be continued for 3 to 6 months and weaned gradually reassessing regularly
- Monitor for features of incomplete bladder emptying and urinary retention, if anticholinergic therapy is ongoing

AMH Children's Dosing Companion (online). Adelaide: Australian Medicines Handbook Pty Ltd; 2017 July. Available in AMH website

True or false?

The most common treatment for daytime urinary incontinence is behaviour modification?

RCH Guideline: TRUE!


Night time

Causes

nocturnal enuresis

?sleep disorder

Primary (always) Monosymptomatic

- Bladder size: genetics, constipation, bladder dysfunction
- Urine volume: as above + caffeine, high volume evening fluids, nocturnal polyuria (reduced ADH in 2/3rds of kids with these symptoms)
- Sleep arousal
- Other: developmental delay, ADHD, OSA

Secondary (sx. again after ≥ 6 months dry) Monosymptomatic

- Psychosocial
- Organic UTI, DM etc

Management- ALL

Manage the bowel

Normalize/Educate

Urotherapy

- Regular fluids, well hydrated (50mls/kg/day)
- Regular voiding, voiding posture

Treat daytime sx. before tackling night symptoms

bedwetting alarm
desmopressin

Bedwetting alarms

body worn
or
pad and bell

optional wireless

RCH guideline for list of service providers near you and video

Not suitable if the carer is experiencing emotional difficulty, expressing anger or blame toward the child, or is unlikely to cope with the additional burden of a bedwetting alarm and sleep disruption in the household

Once dryness is achieved for 2 weeks or more, consider introducing "overlearning" - to over condition the bladder. → encourage the child to drink extra fluids in the hour before bedtime, providing a greater challenge to remaining dry, which may reduce the rate of relapse

Alarm failure because ...

- Fail to wake to stimuli
- Failure to get out of bed when awake
- Alarm attachment problems
- Thick pajamas
- Need over learning, use 2 weeks after last dry night (train to wake to void)
- Inadequate trial: require 2-3 months most times until fully effective

Desmopressin: Minirin™ melt/tablet

Indicated when:

- alarm therapy has failed or is not suitable
- if rapid onset/short-term improvement is a priority of treatment

Relapse rates are high when withdrawn, (60-70 percent)

Sublingual or oral dosing >6yo

Intranasal route is not recommended due to higher risk of hyponatraemia

Restrict fluid from 1 hour before the dose until at least 8 hours after the dose. Desmopressin is **contraindicated for children who can't control fluid restriction**

Assess response after 4 weeks to determine continuation of treatment (if no response consider cessation).

Withdraw for at least 1 week every 3 months to assess for relapse and ongoing need for medication.

Refer

- Red flags
- Failed alarm
- Day or Day and Night after exclusion of UTI and constipation
- Recurrent UTI's, comorbid conditions
- Substantial psychological distress parent/child

Did you know...

- The difference we can make to a child's life: normalise, "no-one brags about wetting the bed/pants", "it's not your fault"
- Alarm therapy is the most effective treatment modality available in children older than 6 years of age, but requires motivation ...of both the child and parent
- Double/Triple make the bed
- 1 in 5 kids at age 5 still wet the bed, as do 1 in 10 at 10 (SCHP webinar- others 1 in 20 at age 10)
- There is a national continence helpline 8-8 weekdays!! (1800 33 00 66) is staffed by Nurse Continence Specialists who offer free and confidential information, advice and support to people affected by incontinence. They also provide a wide range of continence resources and information on local continence services. Available to anyone living in Australia!!

WHAT TOPICS DOES THE HELPLINE COVER?

Common topics covered on the Helpline include:

- prevention and management of bladder and or bowel problems
- women – pregnancy, childbirth, prolapse and menopause
- men – prostate, after dribble
- children – toilet training, bedwetting, day wetting, soiling
- chronic conditions such as diabetes, dementia and Parkinson's Disease
- funding schemes including CAPS and NDIS
- continence product advice.

WHAT INFORMATION IS AVAILABLE?

The Helpline provides information about:

- assessment and diagnosis of incontinence
- treatment options
- management - including product information and advice
- information about funding schemes to assist people with the costs of continence products such as the Australian Government's Continence Aids Payment Scheme
- details of local continence service providers, product suppliers and manufacturers
- access to a wide range of free information brochures and booklets, including brochures in languages other than English.

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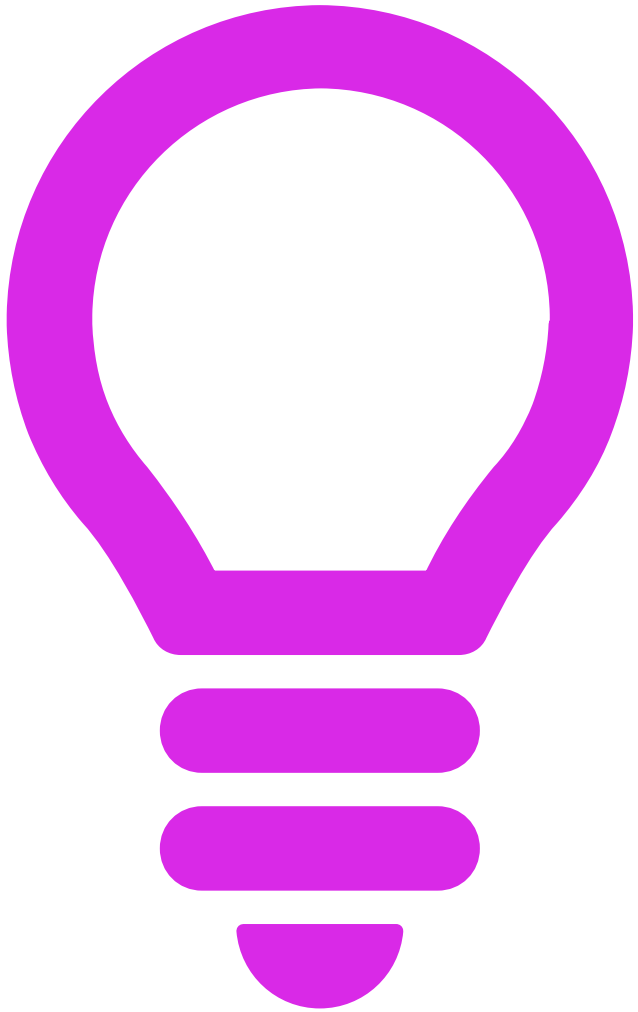
Constiation can be the first sign of parkinsons



...collective knowledge

References

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- RCH: Constipation Guidelines: https://www.rch.org.au/clinicalguide/guideline_index/Constipation_Guideline/
- RCH: Constipation Factsheet: https://www.rch.org.au/kidsinfo/fact_sheets/Constipation/
- RCH Guideline Enuresis - Bed wetting and Monosymptomatic Enuresis: https://www.rch.org.au/clinicalguide/guideline_index/Enuresis_-_Bed_wetting_and_Monosymptomatic_Enuresis/
- RCH Guideline Urinary Incontinence - Daytime wetting: https://www.rch.org.au/clinicalguide/guideline_index/Urinary_Incontinence_-_Daytime_wetting/
- Urinary and Faecal Incontinence in Children - Dr Patrina Caldwell, Paediatrician with SCHP/DCH Webinar
- Continence Foundation of Australia: https://continence.my.salesforce.com/sfc/p/#A0000000KUc9/a/5K0000002Y5u/ienZITPvszr06W8D_KifgAZkolgBsBWS4oyd_GCEzfs