

Constipation in children and young people

Implementing NICE guidance

May 2010

NICE clinical guideline 99



Background

- Prevalence of constipation: around 5–30% of children
- Exact cause not fully understood, signs and symptoms may not be recognised
- Common reason for referral to secondary care
- Families may be given conflicting advice
- Early identification and effective treatment improves outcomes

Scope

Diagnosis and management of idiopathic childhood constipation in primary and secondary care

Covers newborns, infants and children and young people up to their 18th birthday who have idiopathic constipation

Does not cover constipation with a known cause

Key priorities for implementation

- History-taking and physical examination
- Digital rectal examination
- Disimpaction
- Maintenance therapy
- Diet and lifestyle
- Information and support

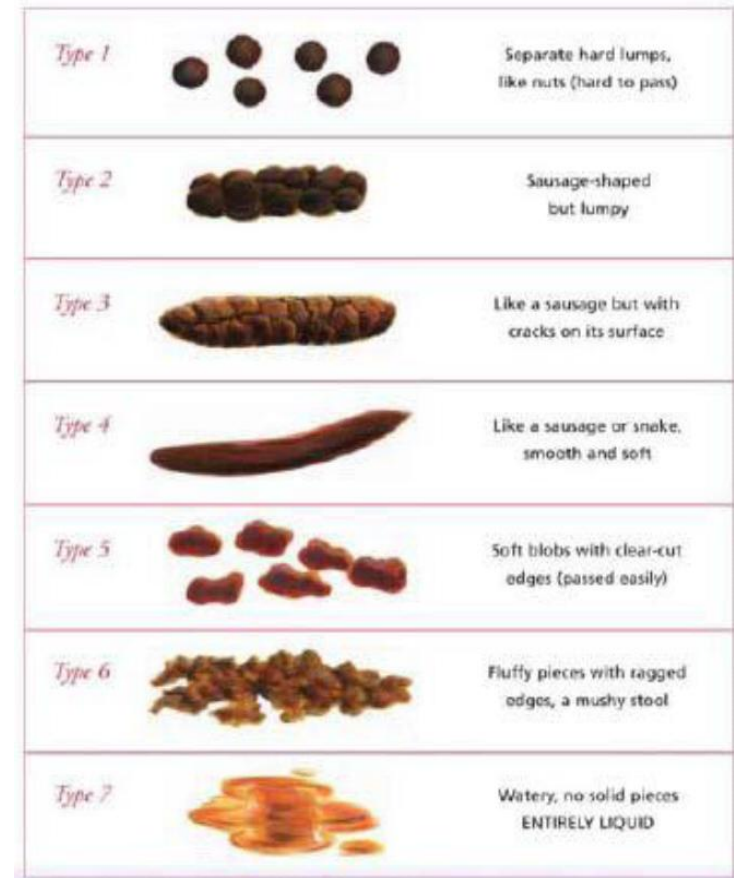
History-taking and physical examination: 1

- Establish whether the child or young person has constipation
- Establish a positive diagnosis of idiopathic constipation by excluding underlying causes

History-taking and physical examination: 2

Bristol Stool Form Scale Types:

1. separate hard lumps
2. sausage shaped but lumpy
3. like a sausage but with cracks
4. like a sausage, smooth and soft
5. soft blobs with clear cut edges
6. fluffy pieces with ragged edges
7. entirely liquid



History-taking and physical examination: 3

- Offer a physical examination to establish idiopathic constipation
- Inform the child or young person and their parents of a diagnosis
- Reassure them that there is a suitable treatment

Digital rectal examination

Children older than 1 year with a possible underlying disorder

- Do not perform a digital rectal examination
- Refer urgently to a healthcare professional competent to perform the examination and interpret features of anatomical abnormalities or Hirschsprung's disease

Red flag signs or symptoms of possible organic causes of constipation in infants and young children

Passage of meconium more than 48 hr after delivery as well as other signs such as small thin stools, vomiting, failure to thrive, tight anal sphincter with empty rectum and abdominal distension	Hirschsprungs disease
Abnormal position or appearance of anus on examination	Anteriorly displaced anus Anal stenosis
Poor growth, dry skin, bradycardia	Hypothyroidism

Clinical investigations

Recommendations on **not** using:

- endoscopy
- manometry
- radiography
- ultrasound
- transit studies
- rectal biopsy

Disimpaction: 1

- Assess for faecal impaction
- Use history taking and physical examination to diagnose faecal impaction
- Look for overflow soiling and/or faecal mass palpable abdominally and/or rectally

Disimpaction: 2

- Offer oral medication for disimpaction
- Inform families that disimpaction can initially increase:
 - symptoms of soiling
 - abdominal pain

Fig 2 Recommended doses of laxatives for the treatment of idiopathic constipation in children

Laxatives	Recommended doses (all drugs listed below are given by mouth unless stated otherwise)
Macrogols	
Polyethylene glycol 3350 + electrolytes	<p>Paediatric formula Oral powder, Macrogol 3350 (polyethylene glycol 3350)* 6.563 g, sodium bicarbonate 89.3 mg, sodium chloride 175.4 mg, potassium chloride 25.1 mg in each sachet (unflavoured)</p> <p>Disimpaction</p> <ul style="list-style-type: none"> • Child under 1 year: ½ to 1 sachet daily (non-BNFC recommended dose) • Child 1–5 years: 2 sachets on 1st day, then 4 sachets daily for 2 days, then 6 sachets daily for 2 days, then 8 sachets daily (non-BNFC recommended dose) • Child 5–12 years: 4 sachets on 1st day, then increased in steps of 2 sachets daily to maximum of 12 sachets daily (non-BNFC recommended dose) <p>Ongoing maintenance (chronic constipation, prevention of faecal impaction)</p> <ul style="list-style-type: none"> • Child under 1 year: ½ to 1 sachet daily (non-BNFC recommended dose) • Child 1–6 years: 1 sachet daily; adjust dose to produce regular soft stools (maximum 4 sachets daily) (for children under 2, non-BNFC dose) • Child 6–12 years: 2 sachets daily; adjust dose to produce regular soft stools (maximum 4 sachets daily) <p>Adult formula Oral powder, Macrogol 3350 (polyethylene glycol 3350) 13.125 g, sodium bicarbonate 178.5 mg, sodium chloride 350.7 mg, potassium chloride 46.6 mg in each sachet (unflavoured)</p> <p>Disimpaction</p> <ul style="list-style-type: none"> • Child/young person 12–18 years: 4 sachets on 1st day, then increased in steps of 2 sachets daily to maximum of 8 sachets daily (non-BNFC recommended dose) <p>Ongoing maintenance (chronic constipation, prevention of faecal impaction)</p> <ul style="list-style-type: none"> • Child/young person 12–18 years: 1–3 sachets daily in divided doses adjusted according to response; maintenance, 1–2 sachets daily
Osmotic laxatives	
Lactulose	<ul style="list-style-type: none"> • Child 1 month to 1 year: 2.5 ml twice daily, adjusted according to response • Child 1–5 years: 2.5–10 ml twice daily, adjusted according to response (non-BNFC recommended dose) • Child/young person 5–18 years: 5–20 ml twice daily, adjusted according to response (non-BNFC recommended dose)
Stimulant laxatives	
Sodium picosulfate†	<p>Non-BNFC recommended doses</p> <p>Elixir (5 mg/5 ml)</p> <ul style="list-style-type: none"> • Child 1 month to 4 years: 2.5–10 mg once a day • Child/young person 4–18 years: 2.5–20 mg once a day <p>Non-BNFC recommended dose</p> <p>Perles (1 tablet = 2.5 mg)</p> <ul style="list-style-type: none"> • Child/young person 4–18 years: 2.5–20 mg once a day
Bisacodyl‡	<p>Non-BNFC recommended doses</p> <p>By mouth</p> <ul style="list-style-type: none"> • Child/young person 4–18 years: 5–20 mg once daily <p>By rectum (suppository)</p> <ul style="list-style-type: none"> • Child/young person 2–18 years: 5–10 mg once daily
Senna§	<p>Senna syrup (7.5 mg/5 ml)</p> <ul style="list-style-type: none"> • Child 1 month to 4 years: 2.5–10 ml once daily • Child/young person 4–18 years: 2.5–20 ml once daily <p>Senna (non-proprietary) (1 tablet = 7.5 mg)</p> <ul style="list-style-type: none"> • Child 2–4 years: ½ to 2 tablets once daily • Child 4–6 years: ½ to 4 tablets once daily • Child/young person 6–18 years: 1–4 tablets once daily
Docusate sodium¶	<ul style="list-style-type: none"> • Child 6 months–2 years: 12.5 mg three times daily (use paediatric oral solution) • Child 2–12 years: 12.5–25 mg three times daily (use paediatric oral solution) • Child/young person 12–18 years: up to 500 mg daily in divided doses

Maintenance therapy

- Offer oral medication for ongoing treatment
- Continue maintenance dose after regular bowel habit is established
- Reduce the dose over a period of months in response to stool consistency and frequency

Diet and lifestyle: 1

- Do not use dietary interventions alone as first-line treatment
- Treat constipation with:
 - laxatives
 - negotiated non-punitive behavioural interventions
 - dietary modifications and sufficient fluid consumption

Diet and lifestyle: 2

	Total water intake per day, including water contained in food	Water obtained from drinks per day
Infants 0–6 months	700 ml assumed to be from breast milk	
7–12 months	800 ml from milk and complementary foods and beverages)	600 ml
1–3 years	1300 ml	900 ml
4–8 years	1700 ml	1200 ml
Boys 9–13 years	2400 ml	1800 ml
Girls 9–13 years	2100 ml	1600 ml
Boys 14–18 years	3300 ml	2600 ml
Girls 14–18 years	2300 ml	1800 ml

Information and support

Provide tailored follow-up, including:

- telephoning or face-to-face talks
- detailed evidence-based information
- verbal information
- contact with specialist healthcare professionals, including school nurses
- referral to an expert practitioner if treatment does not work within 3 months

Find out more

Visit www.nice.org.uk/CG99 for:

- the guideline
- the quick reference guide
- ‘Understanding NICE guidance’
- Costing report and statement
- audit support
- factsheet
- discharge advice
- template for history taking

