



I M P A C T

PAEDIATRIC BOWEL CARE PATHWAY | AUSTRALIA



ABOUT THE IMPACT GUIDELINES

These guidelines are based on the IMPACT pathway that was developed in the UK by the IMPACT Paediatric Bowel Care Pathway Working Party, a group of experts of wide-ranging experience in childhood constipation. This pathway has been updated and amended for Australia by a working party of similar wide-ranging experience whose biographies are given below.

The main objective of these Australian guidelines for the management of constipation and faecal impaction in children is to provide a user-friendly tool that can be used as both an educational teaching tool and as a stand-alone guide. With this aim, it includes all the resources required, including patient assessment forms, patient information and charts, and details about useful organisations in each state. The guidelines are also intended to promote a team approach among all disciplines involved in this area.

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About the Australian guideline working party experts

Tony Catto-Smith

Gastroenterologist, Royal Children's Hospital, VIC

Janet Chase

Physiotherapist, Southern Health, VIC

Murdoch Children's Research Institute, Royal Children's Hospital, Melbourne

Denise Edgar

Contenance Advisor, Contenance Foundation of Australia, NSW

Jan Fields

CNC Stomal Therapy, Mater Children's Hospital, QLD

Susie Gibb

Paediatrician, Royal Children's Hospital, VIC

Bernadette Grattan

Clinical Nurse Consultant, Armidale Health Service, NSW

Michael Johnston

GP, NSW

Kay Josephs

Clinical Nurse Consultant and Contenance Advisor, Blue Care, QLD

These guidelines have been reviewed by the Contenance Foundation of Australia





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Jayne Cross

Community dietician, Knowsley PCT

Dr Abubaker M Elbadri

Consultant Paediatrician with specialist interest in Paediatric Gastroenterology. St Helens & Knowsley NHS Trust, Whiston Hospital, Merseyside

Ruth Emery

Children's Continence Nurse Specialist, Airedale Primary Care Trust

Jane M Fenton

Continence Nurse Specialist, North Staffordshire Continence Service

Linda Fitzmaurice

Nurse Specialist

Karen Irwin

Clinical Nurse Specialist – Bowel Dysfunction, Bolton Primary Care NHS Trust

Ian McDonald

Primary Care Nurse Specialist

Dr Nick Nelhans

Consultant in Paediatric Medicine. North East Wales NHS Trust

June Rogers

Paediatric Continence Adviser, Director of PromoCon, Disabled Living, Manchester



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A GUIDE TO THE MANAGEMENT OF CONSTIPATION
AND FAECAL IMPACTION IN CHILDREN



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CONSTIPATION AND FAECAL IMPACTION: BACKGROUND, DEFINITIONS AND CAUSES

Introduction

Constipation is a very common condition in children. It has been estimated that constipation occurs in up to 10% of children (Leung et al, 1996) and that approximately 3% of general paediatric outpatient visits and 25% of paediatric gastroenterology consultations are related to perceived defecation disorders (Benninga et al, 2004).

Normal defecation rates vary between three stools per day and three stools per week. Chronic constipation can lead to progressive faecal retention, distension of the rectum, and loss of sensory and motor functions (Loening-Baucke, 1993). The aim of these guidelines is to outline the different treatment options available for the treatment of constipation and faecal impaction in children.

Definitions

There is great variation in terminology used to define each of the following terms but recently, the Paris Consensus on Childhood Constipation Terminology (PACCT) group, in an attempt to standardise the terminology used, developed the following working definitions for these conditions.

Constipation

Constipation is the difficult passage of infrequent, dry, hard stools that often cause pain and discomfort. It can be associated with faecal incontinence and can happen at any age. The most common cause of constipation is functional; ie constipation with no underlying cause. PACCT define chronic constipation in children as the occurrence of two or more of the following characteristics occurring during the previous 8 weeks (Finkel, 2005):

- Less than three stools per week
- More than one episode of faecal incontinence per week
- Large stools in the rectum or palpable on abdominal examination
- Passing of very large stools that obstruct the toilet
- Retentive posturing and withholding behaviour
- Painful defecation.

Faecal incontinence

The PACCT group recommended replacing the terms 'soiling' and 'encopresis' with the term 'faecal incontinence' as both soiling and encopresis have widely varying definitions and are used interchangeably. The PACCT group defines faecal incontinence as the passage of stools in an inappropriate place. To be diagnosed with chronic faecal incontinence, the symptoms must have been present for at least 8 weeks (Finkel, 2005).



Faecal incontinence may be either organic or functional in origin. Organic causes include neurological damage or anal sphincter abnormalities. Functional faecal incontinence, with which we are more concerned in these guidelines, is subdivided into:

- Constipation-associated faecal incontinence – the passage of stools in inappropriate places by a child with a mental age of 4 years or older where the behaviour is associated with constipation (Finkel, 2005).
- Non-retentive faecal incontinence – the passage of stools in inappropriate places by a child with a mental age of 4 years or older who shows no evidence of constipation by history and/or examination (Finkel, 2005).

Faecal impaction

This is defined as severe constipation with a large faecal mass in either the rectum or the abdomen, which is unlikely to be passed on demand (Finkel, 2005).

Normal frequency of bowel movements in children

The normal frequency of bowel habit varies between children and with age.

Normal frequency of bowel movements

Age	Bowel movements	
	per week	per day
0–3 months (breast fed)	5–40	2.9
0–3 months (formula fed)	5–28	2.0
6–12 months	5–28	1.8
1–3 years	4–21	1.4
→3 years	3–14	1.0

Adapted from Fontana et al, 1987.

What causes constipation?

Parents and healthcare professionals are often worried that constipation is a sign of a more serious illness. However, outside the neonatal period, only a small minority of children have an organic aetiology for their constipation (Baker et al, 1999). The leading cause of constipation in children is functional or behavioural in origin (Rogers, 1997).

Functional constipation is the result of two main processes: difficulty with stool expulsion and drying of the faeces in the colon (Mason et al, 2004). The experience of passing hard painful stools can lead to withholding behaviour (postponement/suppression of defecation), which results in constipation. (See 'Physiology of the constipated child' on p 8.)



Constipation in children may occur in the following circumstances:

- When changing from breast to formula feeding and when weaning onto solids.
- When switching formula feeds.
- With nappy rash, which can lead to pain on defecation.
- As a result of reduced fluid intake and activity in children who have been ill for some time.
- Following an anal tear or anal fissure caused by passing hard and large stools.
- As a result of acute perianal infection due to group A beta haemolytic streptococcal infection (Rogers, 1997).

Environmental factors can also contribute to a postponement of defecation. For instance, a child might not want to go to the toilet at school or use public toilets because they think these amenities are dark, cold and dirty. Other factors, such as a lack of privacy in toilets, absence of toilet paper or toilets that are difficult to access can all contribute to a child postponing defecation.

Control issues

Psychosocial stressors, like the birth of a sibling, parental disharmony or moving house, may result in 'control issues'.

Other causes of constipation

Less than 5% of constipation in children is due to anatomical or organic causes (Mason et al, 2004) which include:

- Spinal cord injuries, Spina Bifida, Cystic Fibrosis, Cerebral Palsy, Muscular Dystrophy (Neurological Disorders) (Abel, 2001)
- Hirschsprung's disease
- Anorectal malformations
- Intolerance to cow's milk (Iacono et al, 1998)
- Gluten enteropathy

Constipation can also occur secondary to drug treatment with analgesics, antacids, iron supplements and antispasmodics, or result from a diet with decreased intake of fibre and fluids.



Physiology of constipation

In most cases, the cause of childhood constipation is functional and is the result of a combination of closely linked factors (Clayden, 1992). Sometimes though, there is no obvious precipitating cause. Understanding the normal defecation process can improve the detection of precipitating factors and help direct appropriate treatment.

The large bowel has both an intrinsic and extrinsic nerve supply. The intrinsic or enteric nerves within the bowel wall have both a stimulatory and relaxing effect. The extrinsic nerves (parasympathetic and sympathetic) coordinate perception, meal responses and defecation. Central connection and interaction between intrinsic and extrinsic systems are essential for coordinated smooth muscle contraction in the bowel.

There are three main motor patterns in the bowel:

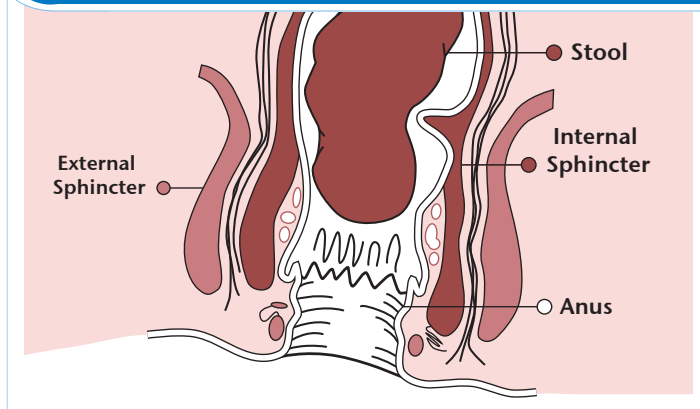
- Mixing movements that move contents in both directions
- Haustral migrations that move contents several centimetres
- Mass movements that move contents up to 35 cm. These movements are likely to happen post-prandially and are followed by defecation.



Normal defecation is a complex process involving coordinated contraction and relaxation of both voluntary and involuntary muscles. The classic stimulus to defecation is rectal distension, largely attributed to the firing of stretch receptors in the rectal ampulla. It has also been suggested that sensory receptors in the pelvic floor muscles convey signals to the brain that provide the first warning of the arrival of faeces in the rectum.

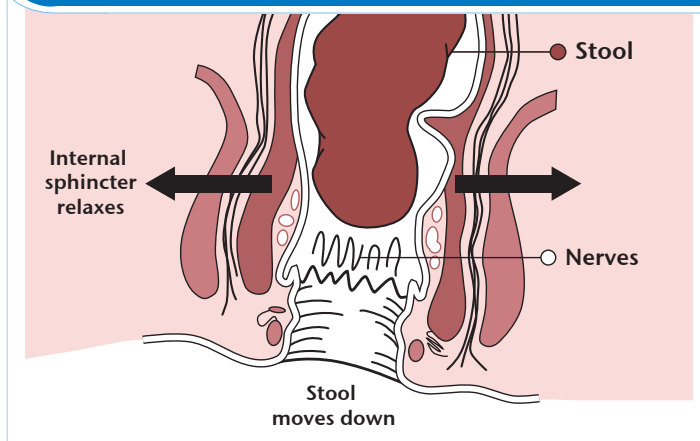
In response to rectal distension the **recto-anal inhibitory reflex** is initiated. The internal anal sphincter (an involuntary muscle) relaxes and the external anal sphincter and puborectalis contract. Further rectal filling results in an increasing urge to defecate. This is termed the **defecation threshold volume**. The puborectalis muscle and external anal sphincter maintain anal closure until a person is ready to pass the stool. The absence of the recto-anal inhibitory reflex is a diagnostic feature of Hirschsprung's disease.

Figure 1



The pelvic floor muscles must relax for defecation to occur. Relaxation of the puborectalis muscle results in a widening of the anorectal angle to about 135° and a shortening and funnelling of the anal canal. Rectal evacuation occurs by peristalsis and is assisted by increased intra-abdominal pressure using the abdominal muscles and the diaphragm if required. Normal anal sphincteric closure is achieved by a sharp burst of muscle activity that occurs in both sphincters and in the pelvic floor at the end of defecation.

Figure 2



Leaning forward while seated with feet supported during defecation facilitates the passage of faeces by lengthening the anal opening and widening the anorectal angle (Tagart, 1966).



Physiology of the constipated child

Constipation is usually associated with incomplete emptying of the rectum. Initially, this fact is signalled to the brain, but after a while the brain becomes used to the signal and learns to ignore the sensation of a full rectum. This means that the child becomes unaware of their rectal filling and gradually the stools build up.

Children with functional constipation may hold back the stool as defecation is painful, therefore rectal emptying is incomplete. Up to 63% of children with constipation and soiling have had a history of painful defecation which began when they were under 3 years of age (Partin et al, 1992). Voluntary withholding of the stool by the child to avoid pain initiates a vicious circle (Figure 3). When the child does open their bowel they may pass a very large stool, hence reinforcing the experience of pain and anal trauma. Overflow diarrhoea or soiling is caused by watery faeces trickling through hardened faeces that have been retained in the rectum and colon by the contracted external sphincter muscle (Loening-Baucke, 1997). As rectal sensation is diminished, the child may be unaware this has happened.

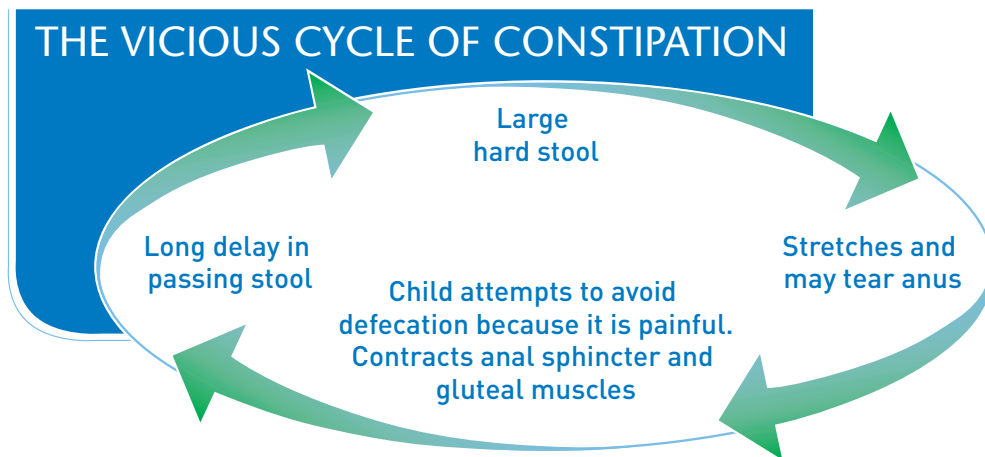


Figure 3:

Adapted from Loening-Baucke, 1996.

Constipation behaviour

Different age groups may show different behaviour in relation to constipation (Loening-Baucke 1996):

- Infants may extend their legs and squeeze the anal and buttock muscles to prevent the passage of a large stool.
- Toddlers may rise up on their toes, rock back and forwards, holding their legs and buttocks stiffly (the 'defecation dance'). This may be interpreted by parents as straining at stools.
- School-age children may experience diarrhoea due to overflow soiling.



Other symptoms

Children with constipation may also exhibit a variety of symptoms, including the ones listed below.

Abdominal pain

The abdominal pain may vary from a vague non-specific pain to a very severe pain that may be diagnosed as an acute abdominal pathology.

Reduced appetite

Eating stimulates the gastro-colic reflex. After eating, a wave of peristalsis is generated, moving down the GI tract. When it reaches the lower GI tract, it can stimulate defecation, but in the very constipated child this may be painful. The child soon associates eating with abdominal pain and may avoid eating. Constipation may cause a reduction in peristalsis in the upper GI tract, which can lead to a bloated feeling and lack of appetite in the child. Often children with chronic constipation have a reduced calorific intake compared to children without chronic constipation (Baker SS, 1999).

Nausea and vomiting

Nausea and vomiting may possibly result from disturbed peristalsis.

Urinary incontinence or bedwetting

A loaded rectum can interfere with normal bladder emptying and storage causing urinary incontinence. Daytime urinary incontinence was reported in 29% of chronically constipated children and bedwetting in 34% of chronically constipated children over the age of 5 in one study (Loening-Baucke, 1997).

Recurrent urinary tract infection

Complicated wetting is often characterised as being part of a classic symptom cluster including urinary tract infection, day and/or night wetting and constipation. Physicians often miss constipation in children with bladder complaints (Yazbeck et al, 1987). Parents may or may not notice that their child is constipated but disregard it as an incidental symptom and so fail to inform the physician (Yazbeck et al, 1987), and often the child is not directly asked. The study by Loening-Baucke (1997) reported that 11% of chronically constipated and soiling children had a history of recurrent urinary tract infection, which resolved with treatment of the constipation providing there was no underlying anatomical cause for the infection.

Urinary retention

Constipation has been identified as a causal factor of urinary retention in children (Gatti et al, 2001).

Vulvovaginitis

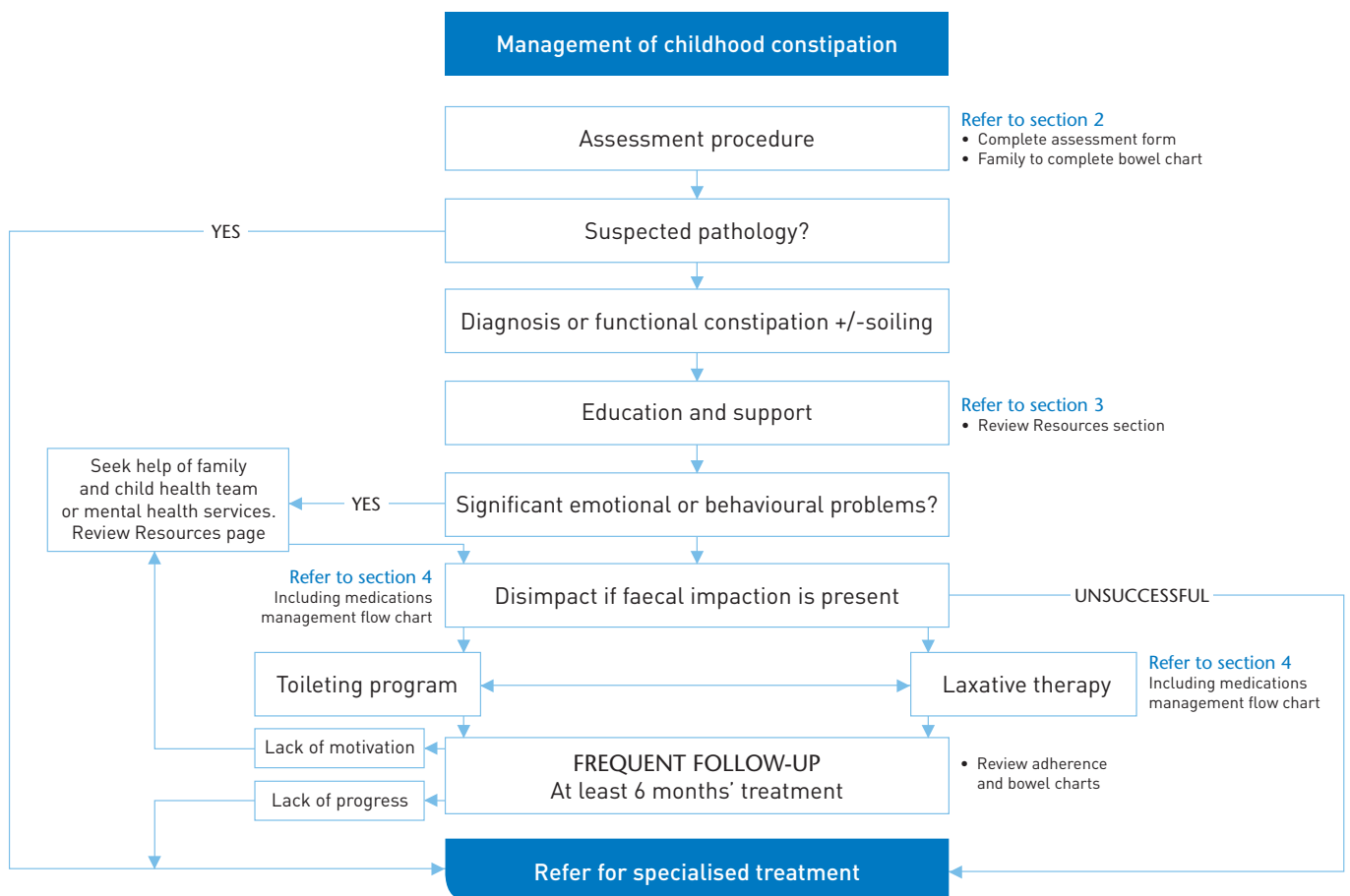
Urinary and faecal leakage can result in an inflamed, excoriated perineum (Van Neer & Korver, 2000).



Overview of the management of childhood constipation

The flow chart below provides an overview of how childhood constipation should be managed and also indicates where further information can be obtained in these guidelines to help implement the process.

There is also a 1-page quick reference checklist provided in the **Patient assessment forms** section of the CD that summarises the steps involved.





MEDICAL HISTORY AND EXAMINATION

Evaluation of a child with chronic constipation requires a full medical history and examination. Other causes of constipation are uncommon but need to be excluded. Important points to consider include:

- Age
- Sex
- Presenting symptoms
- Parental expectation of 'normal' stool pattern.

Assessment forms are provided in the **Patient assessment forms** section of the CD to help you record the relevant information (**Paediatric bowel assessment form** and **Assessment of children who will not open their bowels form**).

Medical history

(Benninga et al, 2004; Baker et al, 1999)

Constipation history

- How soon after birth did the first bowel movement occur? (Meconium is passed within the first 48 hours in 99% of infants (Catto-Smith, 2005). This helps to discriminate functional constipation from Hirschsprung's disease.
- How long has the child had symptoms of constipation and at what age did the symptoms begin?
- What is the stool frequency and what is their consistency and size?
- Does the child experience pain on defecation?
- Is there blood on the stool or toilet paper?
- Is it fresh or old blood?
- Does the child experience abdominal pain?
- Have the carers noticed any withholding behaviour in their child? (This reduces the likelihood that the constipation is organic in origin.)
- At what age did toilet training begin and were there any difficulties experienced during the toilet training process?
- Have the carers noticed any faecal incontinence? (They may mistake this for diarrhoea.)
- Has the child experienced a change in appetite, weight loss (plot parameters on a growth chart), poor weight gain, abdominal distention, nausea, vomiting or fever? (These signs and symptoms could indicate an organic disorder.)



Micturition history

- Does the child experience daytime wetting?
- Does the child experience night-time wetting?
- Does the child have a history of urinary tract infections?
- Does the child use the toilet at school to pass urine?

Psychosocial history

- Review the family structure, including the number of people who live in the child's home and their relationship to the child – who will be the main support person for the child during the treatment process?
- Assess the child's behaviour with peers.
- Assess the possibility of child abuse or bullying at school.
- Does the child use the school toilets for defecation? If not, why not?
- Has the child experienced any developmental delays in learning or physically?

Medical history

- Has the child ever been hospitalised? If so, what for and when?
- Has the child ever experienced perianal fissure, excoriation, dermatitis, abscess or fistula?
- What has been tried before for the constipation?
 - Has behavioural therapy been tried? If so, what was tried and for how long? What was the outcome?
 - Have any tests or biopsies been performed?
 - Has any medication previously been taken for the constipation (including PR medication)?

Current medication

Some medications cause constipation. Ask the carer what medications the child is currently taking. These should include herbal, homeopathic and over-the-counter medicines.

- What medications is the child taking for the constipation?
- What medication is the child on for other conditions?

Current diet

Ask the carer to outline what the child has eaten in the last 24 hours:

- Determine the quantity of fruit and vegetables the child consumes
- Determine whether the child eats a diet with adequate fibre including wholemeal bread, rice, pasta etc.
- Determine whether the child has any allergies or food sensitivities
- Find out the child's daily fluid intake.



Examination

(Benninga et al, 2004; Baker et al, 1999)

This examination checklist does not represent a rigid examination protocol for diagnosing childhood constipation. Depending on who is undertaking the examination and on the child's particular problems, not every examination listed here will be necessary. Prior to any examination, the child's or parents' consent must be obtained following local and national guidelines.

A rectal examination will probably only need to be done occasionally. It is important to ask the parents whether their child has had a rectal examination before, as children often find these examinations frightening and distressing. An abdominal X-ray is only useful if there is no significant faecal retention on rectal examination (Catto-Smith, 2005).

Examine the child's general physical health:

- General appearance
- Growth height and weight
- Vital signs (temperature, pulse, respiratory rate and blood pressure)
- Chest/cardiothorax
- Knee/ankle reflexes (to assess sacral nerve roots and assess gait)
- Abdomen (for distension, palpable liver and spleen, faecal mass, palpable bladder)
- Mouth (for mouth ulcers and to check the state of dentition)

Consider examining the perianal area for:

- Anal position
- Presence of stool around the anus or on clothes
- Perineal sensation
- Skin tags
- Anal fissures (These usually occur posteriorly and are very painful.)
- Perianal Cellulitis (induration and erythema of the perianal skin with mucopurulent exudates). If this is diagnosed, the area should be swabbed and the child treated with oral penicillin.



Consider examining per rectum for:

- Presence of stool
- Amount and consistency of stool
- Explosive stool on withdrawal of finger
- Anal tone
- Presence of anal wink
- Voluntary contraction and relaxation of the anal sphincter
- Other masses.



MANAGEMENT OF THE CHILD WITH FUNCTIONAL CONSTIPATION AND FAECAL IMPACTION

The management of constipation and faecal impaction has three main components:

1. Education
2. Disimpaction
 - Oral
 - Rectal
 - Manual
3. Maintenance therapy
 - Medications
 - Toileting programs
 - Dietary interventions
 - Follow up

Education

Education is important for the successful management of a child's constipation. Education has two aims:

1. To alleviate blame
2. To enlist cooperation

The **Patient information and tools** section of the CD contains a variety of tools and information leaflets that will help parents and children understand and manage the constipation. These items are referred to where relevant throughout this section. In addition, the **Resources** section of the CD provides web links to a wealth of relevant patient material that can be downloaded from the Internet as well as providing information on helpful websites.

What needs to be explained?

These points may need to be repeated several times to the parents and their child during the management program before they are accepted and understood.

- Parents should be encouraged to maintain a positive and supportive attitude towards their child and the child's constipation.
- The pathogenesis of constipation in a child should be explained in an attempt to demystify the condition. (The **Children with constipation and soiling** leaflet in the **Patient information and tools** section of this CD can help with this.)



- If there is faecal incontinence, it is vital to explain that this is not due to the child being 'naughty' or 'dirty' and explain that the child is probably genuinely unaware that they need to go to the toilet.
- It is important to emphasise that the child may have been constipated for a significant period of time and it may take some time to improve things.

Disimpaction

- Faecal impaction is defined as severe constipation with a large faecal mass in either the rectum or the abdomen, which is unlikely to be passed on demand (Finkel, 2005). The rectum becomes large and dilated and filled with a large amount of hard stool on rectal examination. Excessive amounts of stool may be seen in the colon on abdominal X-ray.
- It is vital to complete disimpaction prior to starting maintenance therapy.
- The oral route is not invasive and may give a sense of control to the child but adherence to the prescribed regimen may be a problem.
- Expert consensus opinion recommends that suppositories and enemas are rarely indicated as they are invasive and distressing for the child, their carers and the health professionals who care for them. The rectal route may achieve disimpaction sooner but is not well tolerated by children or their families.
- The treatment of choice is best decided after discussion with the child and their family. It is vital to involve the child and parents in the management decisions as this will improve compliance. The choice of medication is not as important as the parents' and child's compliance with the regimen.

Oral disimpaction

(Also see Drug management of chronic constipation and faecal impaction in Section 4.)

Movicol Half® is the treatment of choice (see **Drug Management Flow Chart** in Section 4) and is currently the only approved oral product in Australia for the treatment of faecal impaction in children. Softening agents and stimulant laxatives can also be used, often in combination (Catto-Smith, 2005).

Examples include:

- Liquid paraffin (avoid in infants under 12 months of age)
- Lactulose
- Senna
- Movicol Half®
- Sodium picosulfate
- Docusate sodium
- Bisacodyl



Rectal disimpaction

(Also see 'Drug management of chronic constipation and faecal impaction' in Section 4.)

In general, the rectal route is not used to disimpact children as it is often not well tolerated. Drugs that can be used are:

- Micro-enemas such as Microlax®
- Glycerol suppositories
- Bisacodyl suppositories

Manual disimpaction

This procedure is a last resort. With modern oral therapies, manual disimpaction is rarely performed. There are a number of concerns from adult practice that manual disimpaction may damage the anal sphincter (Gattuso et al, 1996). If it is performed it should be under sedation.

Maintenance therapy

- Once faecal impaction has resolved, treatment can focus on the prevention of a recurrence of impaction.
- The purpose of maintenance therapy is to help the muscles and nerves of the rectum recover sensitivity and strength by promoting regular toileting and preventing further stool impaction.
- The goal is to achieve one soft stool per day.

Maintenance therapy has four components:

1. Toileting programs
2. Medications
3. Dietary modifications
4. Follow up.

Behavioural toileting programs

It is important to encourage the child to have regular toileting habits by instituting a toilet program. Any toileting program needs to be developed with both the child and their parents, and parents need to be educated as to why toileting interventions are necessary to ensure their cooperation. Again, the **Soiling and constipation in children** leaflet can help with this. The family will also need to be well organised as interventions can be time consuming.

A frequency of one stool per day with rare or no soiling indicates a successful maintenance program, but this may vary from child to child. Normal defecation rates are between three soft stools per day and three soft stools per week.

It is important to educate parents about the warning signs for relapse and how they can alter the maintenance regimen to avoid re-impaction. A stool frequency of less than one stool every three days, a large stool or increasing frequency of soiling suggest that the child is starting to re-impact.



Pelvic floor or continence physiotherapists and nurse continence advisers are able to assess and manage toileting programs and implement behavioural change. They also retrain muscle control to effect efficient bowel evacuation in children (with or without other disabilities) who have impaired sensory and motor control of defecation. This may mean simple advice regarding toilet position and correct use of abdominal muscles and diaphragm.

Tips for a successful scheduled toileting program

- The child and parents should be encouraged to develop a matter-of-fact approach to their toileting routine. Ask the parent to show the child how they include toileting in their daily routine. Strive to reduce blame and promote a team approach. It is imperative to avoid being angry with the child, or shaming and embarrassing them in front of family and friends. It is inappropriate and can be counter-productive.
- Ideally the child should spend a short amount of time (eg 5–10 minutes) after each meal on the toilet. This time should be unhurried and part of the child's normal routine. This takes advantage of the gastro-colic reflex. Encourage the parents to give positive direction; for example saying: "It is time to sit on the toilet". Use of a step to allow the child to rest their feet whilst defecating may be of help. (See the Correct position for opening your bowels chart (entitled 'How to sit on the toilet to do a poo') in Resources / Web resources / Paediatric Continence Association of Australia. Remember that children with chronic constipation may not be able to feel the urge to go.
- The child could possibly be offered rewards or incentives initially to stay on the toilet and should be praised for each sitting whether a stool is produced or not (see also 'Rewarding children' below). This should be recorded in a diary or calendar that can be brought to the outpatient clinic as a record of the child's progress. A bowel recording chart is provided in the **Patient information and tools** section for this purpose. A chart can be used to record each sitting time and to celebrate the sitting.
- The stool diary or bowel recording chart should record all stools passed and where, the time of the event, the amount of stool passed and the time spent sitting on the toilet.

Rewarding children

There are some basic guidelines that need to be followed when rewarding children:

- The behaviour you wish to reward should be achievable by the child; for example, sitting on the toilet for 3 minutes may be achievable but getting stools in the toilet may not be.
- The reward must be negotiated prior to the program starting and should only be given if the child carries out the agreed behaviour – there should be no half rewards for half the behaviour. Should the child be unable to fully carry out the agreed behaviour, it needs to be renegotiated.



- Rewards should be given immediately. The best rewards are praise and attention, but different children value different things. Some may respond to stickers or star charts while others may not. Older children may be more interested in accumulating an agreed number of points towards a longer-term treat and enjoy designing their own charts. It is important that reward charts do not take the place of a well-designed and informative bowel chart. (The relevant chart can be found in **Patient information and tools** section of this CD).

Laxatives

(Also see 'Drug management of chronic constipation and faecal impaction' in Section 4)

- The maintenance medication will usually involve either Movicol Half® (macrogol 3350 + electrolytes) or a stool softener such as paraffin oil (Parachoc), docusate sodium and probably senna or sodium picosulphate. To help facilitate compliance, a medication plan is included in the **Patient information and tools** section of this CD.
- Carers need to be aware that their child may need maintenance therapy for up to 24 months and that they may suffer from a number of relapses.
- Children should be weaned off the medication once they have been regularly passing appropriate volumes of soft, formed, painless stools with no associated soiling episodes for at least 3–6 months. The minimum acceptable number of stools is more than three per week. Use the Children's Bristol Stool Form Chart to help parents and children describe the stool form. This helps minimise differences in interpretation. This chart can be found in the **Patient information and tools** section of this CD.

The most common reasons for treatment failure in the maintenance phase are stopping the medication too soon (Clayden, 1992) or using doses that are too small

Safety of long-term laxative use

There is some concern and fear in the community about using laxatives in children, particularly for long-term treatment. This can have an impact on adherence to prescribed laxative regimens. It is important to discuss the available facts and information with families in order to allay their anxieties and help them understand the need for, and safety of, long-term laxative use.

Historically there were products used as laxatives that are no longer regarded as safe. These have been withdrawn from the market. Mercurial salts are no longer used because of toxicity, and phenolphthalein, which was a component in some medications until 1997, has been withdrawn because of an association with animal carcinogenicity.



Anthraquinones (stimulant laxatives such as senna) have been associated with melanosis coli. This is a discolouration of the bowel caused by the accumulation in the mucosa of macrophages containing pigmented metabolites. While this was thought to signify potential damage to the colon, large controlled studies have not found an increase in bowel cancers in those affected with the condition (Xing JH, Soffer EE, 2001). Anthraquinones are best thought of as 'staining' the bowel rather than affecting it functionally.

Tolerance to the effects of laxatives has not been shown to occur in humans. Neither is there any evidence that long-term use of currently available laxatives in children is associated with any impairment of enteric nerve or smooth muscle function. Electrolyte disturbances, particularly potassium depletion, can occur with prolonged excessive doses of laxative, but at usual doses this is not a clinical problem.

Dietary interventions

The role of diet in the causation of childhood constipation has been over-emphasised. It has been shown that approximately 50% of children without chronic constipation consume less than the recommended amount of fibre per day. Children with chronic constipation were shown to be consuming less than 25% of the recommended daily fibre intake. It can, however, be difficult to increase the amount of dietary fibre taken by a child (McClung, 1995), and constipation management should instead focus on a toileting program with laxatives.

In attempting to provide food choices to improve the child's dietary intake, it is always helpful to refer to a dietician for dietary assessment. There are also guidelines by the NHMRC, who have produced an information leaflet for parents and carers on healthy eating for children and adolescents. To obtain free copies of the leaflet, call: 1800 020 103 ext 8654 or email: phd.publications@health.gov.au. Alternately, this and other related documents can be downloaded at: <http://www.nhmrc.gov.au/publications/synopses/dietsyn.htm>

The main considerations are to:

- Encourage a regular, balanced meal pattern.
- Ensure an adequate fibre intake. Aim for a variety of foods including wholegrain cereals, wholemeal/wholegrain breads and fruit and vegetables. Include dried fruit and fruit eaten with skin on as well as vegetables, particularly beans, peas, sweet corn and pulses such as lentils. Reading labels on food can help to identify the fibre content of foods.
- Ensure an adequate intake of fluids. Suitable fluids include water, cordial and fruit juices. Milk is important as part of a balanced diet, and intake should be in accordance with recommendations for the child's age.
- Explain to parents that if they would like their child to eat more fibre-containing foods such as fruit and vegetables, then they will need to have these available in the house. The child will also need to see other family members eating the same sort of food, or they will understandably view the enforcement of this type of diet as a punishment with predictably negative results.



It is important that the whole family is involved in improving their diet to encourage compliance by the constipated child

Follow up

The child and their family need regular follow-up to meet individual needs. When following up please consider the 'whole child' approach:

- Demystify constipation and faecal impaction
- Include structure in the child's toileting routine
- Emphasise the need for long-term treatment/laxatives because relapses can occur
- Continue to assess general health and appetite.

Regular contact either via the telephone or at an outpatient's clinic is needed. The minimum suggested schedule is:

1 week
 2 weeks
 1 month
 3 months
 6 months.

This should be individually scheduled according to the needs of the child and family.

Possible follow-up questions

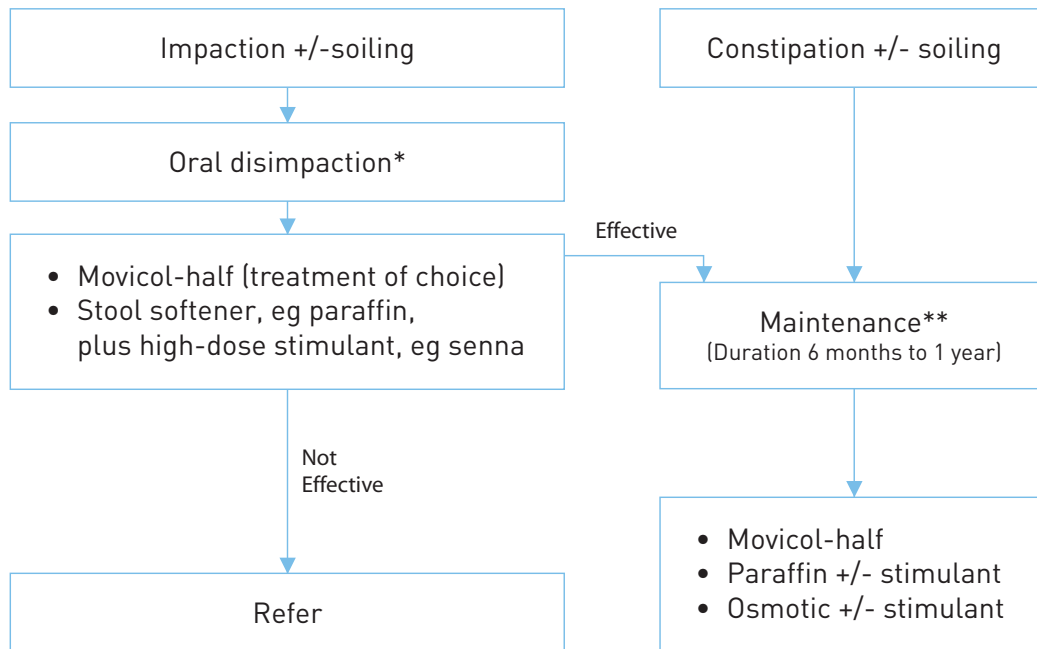
Here are some questions you might like to ask when you follow up with your patients:

- How is the child's general health?
- How often is the child defecating?
- What medications are they taking?
- Is their toileting routine going well? (Review their diary together)
- Are you happy with the child's progress?
- Is the child feeling better about their toilet problems?
- Are there any other problems or concerns you would like to talk about?



DRUG MANAGEMENT OF CHRONIC CONSTIPATION AND FAECAL IMPACTION

The following flowchart outlines the drug management process for chronic constipation and faecal impaction in children.[§]



*The use of suppositories and enemas are rarely indicated as they are invasive and distressing for the child, their carers and health professionals

**Therapy should be withdrawn gradually following a satisfactory maintenance period

[§]Developed by the IMPACT Australia Advisory Group – April 2006



Introduction to laxatives: pharmacology and mode of action

(Parfitt, 1999)

Laxatives can be classified into five main groups according to their mechanism of action and pharmacological properties (Mehta, 2004). Which laxative is used depends on many factors, especially the preferences of the child and their family. The following section gives an overview of the five classes.

Faecal softeners

Faecal softeners either act as lubricants, like liquid paraffin, or as surface-wetting agents which have a detergent-like action, such as docusate sodium. Docusate is an anionic surfactant that is thought to act primarily by increasing the penetration of fluids into the faeces. It is usually effective within 1 to 3 days of administration.

Stimulant laxatives

Bisacodyl and sodium picosulphate

Bisacodyl is a stimulant laxative which acts on the nerve endings in the walls of the intestine and rectum. It causes the muscles in the intestine to contract more often and with greater force. Bisacodyl is metabolised to its active compound, bispyridyl-2-methane.

Sodium picosulphate is a stimulant laxative related to bisacodyl. It is metabolised by colonic bacteria to the same active compound as bisacodyl, bispyridyl-2-methane. It is usually effective within 10 to 14 hours after administration.

Senna (sennosides a and b)

Senna is an anthraquinone stimulant laxative that is obtained from the plants **Cassia Senna** or **Cassia Angustifolioli**. Anthraquinones are metabolised by the liver and excreted in the urine, faeces and breast milk. Unabsorbed senna is hydrolysed in the colon by bacteria to release the active free anthraquinones. Its mode of action is not clear but an effect usually occurs 6–12 hours after administration. It can be administered as tablets (Senokot, Sennetabs, Laxettes with senna), granules (Senokot) or as chocolate squares (Laxettes with sennosides).

Glycerol suppositories

Glycerol suppositories act as a stimulant by virtue of the mildly irritant action of glycerol (Mehta, 2004). It usually acts within 15–30 minutes.

Iso-osmotic laxatives (Movicol Half® PI)

Movicol Half® (macrogol 3350+electrolytes) is the only product of this type available in Australia. It contains macrogol, which is classified according to its average molecular weight. Macrogol of high molecular weight, like Macrogol 3350, is unchanged in the passage along the gut. It is virtually unabsorbed from the gastrointestinal tract and has no known pharmacological activity. Any macrogol that is absorbed is excreted via the urine. Macrogol exerts an osmotic activity and increases the amount of fluid in the stool. Movicol Half®, when dissolved in ¼ glass of water, results in a solution that has an osmotic pressure equal to that of the colonic extracellular fluid. As a result there is no net movement of water between the body and the lumen of the digestive tract. Movicol Half® solution delivers water to the colon to soften, bulk and lubricate stools, which stimulates peristalsis and facilitates defecation.



Osmotic laxatives

Lactulose is a synthetic disaccharide that cannot be cleaved by the enzymes of the small intestine of mammals and other animals. Lactulose is only absorbed in small amounts and reaches the large intestine where it is degraded completely by bacteria in the large bowel into short-chain fatty acids, hydrogen and carbon dioxide (Hallman, 2000).

Bulk-forming laxatives

Dietary fibre (bran)

The fibrous outer layers of cereal grains (usually wheat) consist of the pericarp, testa and aleurone layers. They contain celluloses, polysaccharide or hemicelluloses, protein, fat, minerals, and may contain part of the germ or embryo. Bran contains water-insoluble fibre and may also provide water-soluble fibre. Dietary fibre may exert a laxative effect through several mechanisms (Hardman, 1999):

- Binding water and ions in the colonic lumen, thereby softening faeces and increasing bulk
- Supporting the growth of colonic bacteria, which in turn increases faecal mass
- Adding to the osmotic activity of luminal fluid – via digestion of some components by colonic bacteria to metabolites with osmotic activity.

Ispaghula husks, plantain and psyllium

These are bulk laxatives obtained from various **Plantago** species. They adsorb water in the gastrointestinal tract to form a mucilaginous mass, which increases the volume of the faeces and hence promotes peristalsis. The full effect may not be achieved for up to 3 days.

Prescribing information

In this section medications recommended for disimpaction and treatment of constipation are outlined. The prescribing information is taken mainly from MIMS Australia. Not all the products listed are expanded in the prescribing section, nor are combination products, such as a stool softener with a stimulant, listed here. Consult MIMS Australia for a full picture of the products that are available for constipated children in Australia.

Consult the full Approved Product Information before prescribing any of the medications listed here.

[See 'Safety of long-term laxative use' Section 3 p 19].



Faecal softeners

Liquid paraffin (eg Parachoc, Agarol); Microlax® (sodium lauryl sulphoacetate, sodium citrate, sorbitol, sorbic acid).

Liquid paraffin (Parachoc)

Indication: constipation

Dose and administration: children 12 months to 6 years: 10–15 mL daily; children 7–12 years: 20 mL daily; children >12 years and adults: 40 mL daily. Dose can be increased or decreased by 5 mL as required. Administer 2 or more hours before lying down. (Ref Australian Prescription Product guide)

Adverse effects: dependence, oil leakage

Precautions: children <2 years.

Coloxyl drops® (Poloxalcol)

Indication: constipation in infants and children.

Dose and administration: take 3 times daily. Children <6 months: 10 drops; children 6–18 months: 15 drops; 18–36 months: 25 drops.

Adverse effects: adverse effects occur rarely with the docusates but include diarrhoea, nausea and abdominal cramps. Skin rash has also been reported.

Contraindications: intestinal obstruction, abdominal pain, suspected appendicitis, undiagnosed rectal bleeding.

Precautions: docusates may facilitate gastrointestinal absorption of other drugs possibly increasing their toxicity. They should not be used with liquid paraffin. Dependence.

Microlax® (sodium lauryl sulphoacetate, sodium citrate, sorbitol, sorbic acid)

Indication: treatment of rectal constipation and faecal incontinence.

Dose and administration: enema. Children >3 years: content of 1 tube rectally, inserting full length of nozzle; children <3 years: insert half the length of the nozzle.

Adverse effects: sodium salts should be avoided as they may give rise to sodium and water retention in susceptible patients (Mehta, 2004). Rectal burning may also be experienced.

Contraindications: use in acute gastrointestinal conditions (Mehta, 2004).



Stimulant laxatives

Bisacodyl (Duloxax[®], Lax-tabs, Petrus bisacodyl suppositories); senna (Senokot[®], Sennetabs, Laxettes with sennosides); sodium picosulphate (Duloxax SP drops); glycerol suppositories (glycerol suppositories BP).

Duloxax[®] (bisacodyl)

Indication: constipation.

Dose and administration: children ≥ 10 years: 1–2 tablets daily; children 4–10 years: 1 tablet; children < 4 years: on medical advice.

Adverse effects: prolonged excessive use may lead to electrolyte imbalance and hypokalemia and prolonged excessive use may lead to rebound constipation. It may cause diarrhoea and abdominal discomfort.

Contraindications: intestinal obstruction, acute surgical abdominal conditions, acute inflammatory bowel disease, dehydration, ileus.

Note: Duloxax also exists in a suppository form for an enema alternative for children (Duloxax paediatric enemas). Tablets and suppositories can be used together in children. See MIMS for full dosing schedule.

Duloxax SP drops (sodium picosulphate)

Indication: constipation.

Dose and administration: Children > 10 years: 10 drops (5 mg) at night initially, which can be increased to 20 drops if needed; children 4–10 years: 5–10 drops (2.5–5 mg) at night. Drip onto a spoon or into a glass of water and take immediately.

Adverse effects: sodium picosulphate may cause abdominal discomfort such as colic. Diarrhoea with excessive loss of water and electrolytes, especially potassium, has been associated with prolonged use.

Contraindications: intestinal obstruction, ileus, acute surgical abdominal conditions, acute inflammatory bowel disease, severe dehydration, electrolyte disturbances.

Caution: children should not take Duloxax SP without medical advice.

Senokot[®] (senna)

Indication: constipation.

Dose and administration: children > 6 years: 1–2 tablets or $\frac{1}{2}$ –1 teaspoon of granules (2.5–5 mL) daily at bedtime; children < 6 years: on medical advice.

Adverse effects: senna may cause mild abdominal discomfort such as colic or cramps. Prolonged use or overdose can result in diarrhoea with excessive loss of water and electrolytes, especially potassium. Anthraquinone derivatives



may colour the urine yellow-brown or red depending on the pH. Reversible melanosis coli (pigmentation of the bowel mucosa) has been reported following chronic use. Whilst this was thought to signify potential damage to the colon, no clear link has been established between stimulant laxatives and cancer (Xing JH, Soffer EE, 2001). Anthraquinones are best thought of as 'staining' the bowel rather than affecting it functionally.

Contraindications: intestinal obstruction, symptoms of appendicitis, undiagnosed acute or persistent abdominal symptoms.

Glycerol suppositories BP

Indication: acute constipation.

Dose: 1 suppository inserted rectally for 15–30 minutes. Available in infant and child size.

Adverse effects: may occasionally cause local irritation.

Iso-osmotic laxatives

Movicol Half® (macrogol 3350+electrolytes) (Movicol Half® PI)

Indication: constipation and faecal impaction in children aged ≥ 2 years.

Dose and administration:

For constipation in children >12 years and adults: 2 sachets daily dissolved in 120 mL of water, which can be increased to six sachets daily. For children of 12 years and older who are taking 2 or more sachets daily, it is recommended that MOVICOL is used.

For constipation and prevention of recurrence of faecal impaction in children aged 2–11 years: 1–2 sachets of powder dissolved in 60–120 mL of water daily, which can be increased to four sachets daily. Use in children aged 2 years and older should be limited to 12 weeks except under medical supervision.

For faecal impaction in children >12 years: 16 sachets of powder dissolved in 1 L of water consumed within 6 hours. Maximum 3 days therapy. For patients of 12 years or older, MOVICOL is recommended.

For faecal impaction in children 2–11 years: follow the 7-day course set out in the table below. Dissolve one sachet in 60 mL of water. The correct number of sachets can be reconstituted in advance: for example, 12 sachets can be reconstituted in 750 mL of water. Reconstituted Movicol Half® can be kept covered and refrigerated for 24 hours.



Treatment course for faecal impaction in 2–11 year-olds

Age (years)	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
Number of Movicol Half® sachets							
2–5	2	4	4	6	6	8	8
6–11	4	6	8	10	12	12	12

Adverse effects: abdominal discomfort, mild diarrhoea, allergic reactions, fluid electrolyte disturbance, perianal inflammation and soreness.

Contraindications: intestinal perforation or obstruction due to structural or functional disorder of the gut wall; ileus and severe inflammatory conditions of the intestinal tract, such as Crohn's disease; ulcerative colitis and toxic megacolon; known hypersensitivity to any of the ingredients.

Osmotic laxatives

Lactulose (Actilax, Dupholac, Genlac, GenRx lactulose, Lac-dol); sodium phosphate (Fleet ready-to-use enema).

Lactulose

Indication: constipation.

Dose and administration: see individual product information for doses in children and infants.

Adverse effects: serious adverse effects are reported rarely with lactulose. It may cause abdominal discomfort associated with flatulence or cramps. Nausea and vomiting have been occasionally reported following high dosage. Prolonged use or excessive dosage may result in diarrhoea with excessive loss of water and electrolytes. Prolonged use may be associated with development of dental caries and parents should be instructed to pay careful attention to dental hygiene.

Contraindications: It should not be given to patients with intestinal obstruction or to those on a low galactose diet. Care should be taken in patients on a low lactose diet or with diabetes.



Bulk-forming laxatives

Fybogel® (ispaghula); Normafibre® (sterculia); Nucolox® (psyllium, starch, maize)

Doses and administration of Fybogel®: children >12 years: one sachet of powder morning and evening, dissolved in water and drunk immediately, preferably after a meal; children 6–12 years: half adult dose; children <6 years: on medical advice.

Doses and administration of Nucolox®: children >12 years: 2 teaspoons of powder (7.5 g) dissolved in 200 mL of water or fruit juice 1–3 times daily; children 6–12 years: half adult dose.

Doses and administration of Normafibre®: children: as directed.

Adverse effects: large quantities may temporarily increase flatulence and abdominal distension. Hypersensitivity has been recorded following ingestion or inhalation.

Precautions: these products should always be administered with plenty of fluid to prevent compaction in the gastrointestinal tract, as there is a risk of oesophageal or intestinal obstruction and faecal impaction, especially if these compounds are swallowed dry. Bulk laxatives should not be given to patients with pre-existing faecal impaction, intestinal obstruction or colonic atony.



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ASSESSMENT FORM

Children who will not open their bowels on the toilet (eg will only pass stools in a nappy)

Date completed:	Completed by:
Child's name:	Date of birth:
How often does the child open their bowels?	
What is the child's behaviour just before opening their bowels?	
What is the child's behaviour just after they have opened their bowels (eg does he/she indicate that they have been)?	
Is the child seen to 'hold on'?	Yes/No
Does the child ask for a nappy to open their bowels?	Yes/No
If 'yes' and no nappy is available, what does the child do?	
If 'yes' and a nappy is available, what does the child do?	
Does the child appear to experience pain on defecation?	Yes/No
Is there any general anxiety about using the toilet or potty?	Yes/No
If 'yes', is it related to all toilets or potties or to specific ones only?	
Does the child use the toilet or potty appropriately to empty their bladder?	Yes/No
If the problem appears to be due to constipation / hard stools / anal fissure, refer to a GP for appropriate treatment.	

PAEDIATRIC BOWEL ASSESSMENT TOOL

Date:

Date referral received:

Name and Address / ID No:	Date of Birth:
	Age:
	Sex:
	Telephone No:
Reason for Referral :	

Family Details

Mother's Name:	Father's Name:
Other carers: (note care arrangements if >1 family involved)	

Sibling Details

Continence (urinary and bowel)

Name	Age	Sex	Day	Night	Comments

Education

School:	Year:
Teacher:	
Progress:	
Relationship with other children:	
Toilet environment at school:	

Birth history and development

Gestation in weeks:	Delivery: Normal / C Section / Other
Neonatal problems:	
Delay in passing meconium (more than 24 hours after birth / constipation in first month)	No / Yes
Any problems with bowels in the first 12 months	No / Yes
Breast / bottle fed	
Age appropriate milestones	No / Yes
Any parental concerns about development	No / Yes

Bowel behaviour and toileting history

Duration of bowel problems:	
Frequency of bowel motions:	
Any blood Fresh or old:	No / Yes
Any mucus	No / Yes
Description of motions – refer to Bristol stool chart:	
Soiling: No / Yes	Duration:
Management of soiling at school:	
Management of soiling at home:	
Urinary symptoms	No / Yes
Nocturnal enuresis	
Daytime incontinence	
Appetite affected	
Abdominal symptoms (e.g. pain)	
Pain on defecation	
Any associated nausea and vomiting	No / Yes
Weight loss Amount:	No / Yes
Previous management, including medication used (include homeopathic / over the counter medication) Comments:	No / Yes
Any investigations:	
Has the child ever been toilet trained	No / Yes / Not applicable
Where does the child normally open their bowels:	
Regular toileting routine If yes - time and duration:	No / Yes
Toilet fears	No / Yes
Any withholding behaviour:	
Other behavioural problems	No / Yes
Are there any other issues that may interfere with compliance:	

Other medical history

Childhood illnesses of significance:	
Hospitalisation	No / Yes
Duration: Reason:	
Does the child have any allergies/reactions to food or medication:	
Family history of bowel disorders:	
Other relevant family history:	

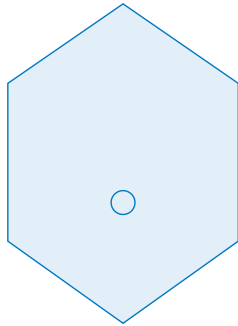
Diet / Fluids / Exercise

Breakfast:
Lunch:
Dinner:
Snacks:
Food likes:
Food dislikes:
Fluid intake for 24hrs:
Type of fluids:
Activity / sports:

Examination and investigation

The majority of children with constipation / faecal impaction have no underlying pathology and investigation is not usually required. A physical examination should be performed as part of initial evaluation.			
Height:			
Weight:			
A specialist health practitioner may consider the following:			
Pallor	No / Yes	Jaundice	No / Yes Oral ulceration No / Yes
Cardiovascular (if indicated)			
Respiratory (if indicated)			
Central nervous system			
Check gait			
Check:	Power upper limb Power lower limb	Tone upper limb Tone lower limb	Reflexes BJ, TJ, SJ, AJ, KJ

Abdominal and anal inspection by a specialist health professional



Organomegaly

No / Yes

Distension

No / Yes

Faecal mass palpable

No / Yes

Internal rectal examination is rarely indicated

Anal inspection (if indicated)

Position of anus – anterior	No / Yes	Anus normal	No / Yes
Perineal sensation	No / Yes	Skin tags	No / Yes
Rectal prolapse	No / Yes	Fissure	No / Yes
Perianal cellulitis	No / Yes	Soiling	No / Yes
AXR	No / Yes	Perianal swab	No / Yes

Diagnosis

Constipation – see definition in section 1	<input type="checkbox"/>
Faecal incontinence:	<input type="checkbox"/>
(i) Functional (secondary to constipation)	<input type="checkbox"/>
(ii) Functional non-retentive (soiling without constipation)	<input type="checkbox"/>
Other problems identified from assessment –e.g. wetting or urinary incontinence:	<input type="checkbox"/>

Management including educational resources

Medication plan	No / Yes
Toileting advice	No / Yes
Diet / fluids/exercise advice	No / Yes
Other treatment / interventions needed:	

Follow up (see IMPACT guidelines)

By whom:
When:
Referral to other health professionals:



IMPACT GUIDELINES – A QUICK REFERENCE TOOL

Assessment

1. History

- Bowel frequency
- Abnormal straining
- Pain/discomfort on defecation
- Abdominal pain
- Nausea/vomiting
- Hard stool
- Day or night time wetting
- Faecal soiling

4. Examination

- General appearance
- Height and weight
- Back inspection
- Knee/ankle reflexes
- Assess gait
- Anal inspection
- Abdominal palpation

2. Contributing factors

- Withholding behaviour
- Dietary factors
- Inadequate fluid intake
- Medical conditions
- Prescription and OTC drugs
- School issues/toilet access problems
- Psychological issues eg abuse

5. Investigations

- Rarely required

3. Impact on life

- Physical and psychological impact on child and carers

6. Refer to specialist if recent history of:

- Change in bowel habit
- Unexplained rectal bleeding
- Persistent abdominal symptoms
- Weight loss

General management of constipation and faecal impaction

1. Education

- Explain why these conditions occur
- Encourage positive/supportive attitude from children, family and carers
- No blame attitude
- Treatment may be long term

2. Toileting

- Explain Scheduled Toilet Training
- Get 'buy in' to program from child and carers
- Emphasis on passing stools in toilet not on keeping pants clean
- Sit child on toilet for 5 minutes after every meal
- Encourage and reward child
- Avoid anger and embarrassing child

3. Nutrition

- Ensure age appropriate intake of fibre and fluids

4. Physical Activity

- Encourage physical activity

Specific management

Occasional Constipation

1. Check toilet routine, ensure adequate fibre and fluids
2. Review after 1 month. Stool softener if needed
3. Refer to specialist if not successfully managed after 6–8 weeks

Chronic Constipation

1. Movicol Half or Parachoc
2. Use bowel record chart to monitor progress
3. If not successful –
 - Check compliance
 - Increase dosage of laxative
 - Refer to specialist if no success after 6–8 weeks

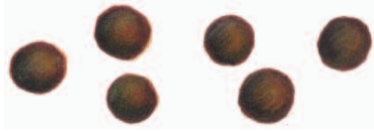



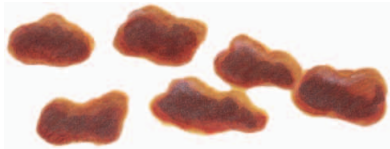
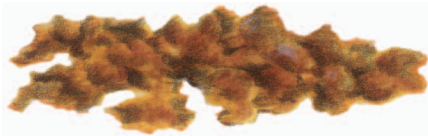

Faecal Impaction

(with associated soiling)

1. Disimpact with Movicol Half or stool softener and stimulant
2. Use bowel chart to monitor progress. Refer to specialist if no improvement in 7 days
3. Maintain treatment for > 6 months prior to dose reduction to prevent reimpaction



THE BRISTOL STOOL FORM SCALE

<i>Type 1</i>		Separate hard lumps, like nuts (hard to pass)
<i>Type 2</i>		Sausage-shaped but lumpy
<i>Type 3</i>		Like a sausage but with cracks on its surface
<i>Type 4</i>		Like a sausage or snake, smooth and soft
<i>Type 5</i>		Soft blobs with clear-cut edges (passed easily)
<i>Type 6</i>		Fluffy pieces with ragged edges, a mushy stool
<i>Type 7</i>		Watery, no solid pieces ENTIRELY LIQUID

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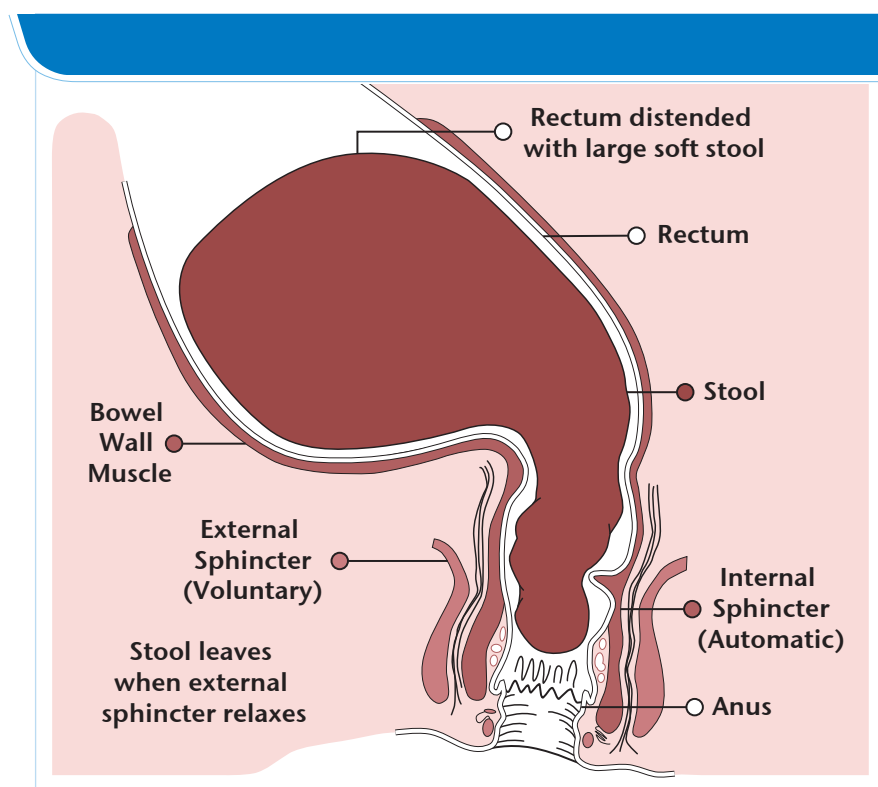
SOILING AND CONSTIPATION IN CHILDREN

Soiling is the passing of poo into underwear. It affects up to 4–5% of school children. It is **involuntary** and very distressing for the child and family and often leads to social isolation. It can affect any child, and is not the child's or parents' fault.

Soiling most often occurs as a consequence of the rectum and anus (lower bowel) being full of faeces. This may occur for several reasons:

- Some children have experienced pain with pooing, which may lead them to 'hold on' and avoid going to the toilet
- Some children may have incoordination between the lower bowel and anus meaning that they don't effectively empty their rectum
- Others may be too busy to go to the toilet and simply forget to go later on (this may begin when children start school or kindergarten).

Many such children have never had a hard poo (which some people regard as constipation) but have not managed to adequately empty their bowels. This retention of faeces gradually dilates the bowel which then alters the sensation or feeling in the bowel so the child cannot tell when they need to do a poo. The stretched rectum means that soft or liquid stool can be passed or seep out whenever the sphincter relaxes. The child will not be aware of this happening and will not feel the soiling on the skin (liquid stool is the same temperature as their skin).





About 20% of children with soiling also develop urinary symptoms: bedwetting, daywetting or urine infection. If these symptoms are present please let your healthcare professional know.

It is important if your child is soiling to:

- Remember the soiling is not deliberate
- Tackle the problem with your child and health carers
- Help your child to keep a diary of their bowel activity
- Encourage them to sit on the toilet three times a day, after breakfast, after lunch (or after school if more suitable), and after tea for 5 minutes or as instructed
- Tell someone at school about the condition so they can support your child at school
- Encourage your child to check their underwear and change it regularly. Make sure they have clean underwear and wipes at school to allow changes if needed
- Reward them for complying with their treatment program but don't tie rewards to clean pants as this is not something the child has control over
- Remember that initially medication will be used to assist in clearing the bowel and may make the soiling worse. It should then begin to improve
- Consult your treating doctor or nurse if soiling doesn't improve, or your child is in pain
- Don't stop the medication without medical advice. Too early or too rapid a withdrawal of medication can lead to a recurrence of the problem.

Toilet training tips

- Introduce your child to a routine for sitting on the toilet and trying to go to the toilet
- If you see the child withdrawing to poo, take them to the toilet but do not force them to sit on it
- Make the toilet room safe and pleasant
- Encourage your child to go into the toilet room, even if they insist on using a nappy. Gradually encourage them to sit on the toilet even when they are wearing their pants or nappies
- Involve your child in emptying poo into the toilet and flushing it away
- Teach them to wipe themselves and wash their hands after going to the toilet
- Praise them and possibly use an instant reward: star/stamp etc for sitting on toilet and for doing a poo
- Try to keep up the routine even when visiting people or on holidays
- Seek medical advice if your child has persistently hard or painful poos.

THE BRISTOL STOOL FORM SCALE (for children)

Choose your Poo!

type 1		looks like: rabbit droppings Separate hard lumps, like nuts (hard to pass)
type 2		looks like: bunch of grapes Sausage-shaped but lumpy
type 3		looks like: corn on cob Like a sausage but with cracks on its surface
type 4		looks like: sausage Like a sausage or snake, smooth and soft
type 5		looks like: chicken nuggets Soft blobs with clear cut edges (passed easily)
type 6		looks like: porridge Fluffy pieces with ragged edges, a mushy stool
type 7		looks like: gravy Watery, no solid pieces ENTIRELY LIQUID

The concept by Professor DCA Candy and Emma Davey, based on the Bristol Stool Form Scale produced by Dr KW Heaton, Reader in Medicine at the University of Bristol. © 2005 Norgine Limited manufacturer of MOVICOL®-Half

MOVICOL®-Half
macrogol 3350 with electrolytes



STATE ORGANISATIONS FOR CONSTIPATION AND CONTINENCE

Continence Foundation of Australia

Mission statement

“To take control of incontinence in the community by identifying, treating, and preventing this common condition through education, support and research.”

National office

AMA House,
293 Royal Parade
Parkville
VIC 3052
Ph: 03 9347 2522
Fax: 03 9347 2533
Email: info@contfound.org.au
<http://www.contfound.org.au>

National Continence Helpline: 1800 330 066

State offices

New South Wales

Continence Foundation of Australia in NSW Inc.
PO Box 6083
Silverwater 1811
Ph: 02 8741 5699
Fax: 02 8741 5690
Email: contfoundnsw@ozemail.com.au

Western Australia

Continence Advisory Centre
Hollywood Private Hospital
115 Monash Avenue
Nedlands 6009
PO Box 719, NEDLANDS 6909
Ph: 08 9386 9777
Fax: 08 9386 9001
Freecall: 1800 814 925 (Country callers)
<http://www.continencewa.org.au>

South Australia

SA Continence Resource Centre
C/- ILC
11 Black Road
Gilles Plains 5086
Ph: 08 8266 5260
Fax: 08 8266 5263
Email: continence@ilc.sa.gov.au

Queensland

Blue Care Continence Advisory Service
1541 Logan Rd
Mt Gravatt
QLD 4122
Ph: 07 3343 6288
Email: Cont.advisor@bluecare.org.au



Victoria

Victorian Continence Resource Centre
 c/o St George's Health Service
 283 Cotham Rd
 Kew
 VIC 3101
 Ph: 03 9816 8266
 Fax: 03 9816 8366
 Email: cfavic@continencevictoria.org.au
<http://www.continencevictoria.org.au>

Paediatric Continence Association of Australia

The Paediatric Continence Association of Australia (PCAA) is a volunteer-based support organisation dedicated to providing education, information, support and advocacy for children and young people who suffer incontinence.

National office

15 Meadowgate Drive
 Chirnside Park
 Victoria 3116
 Ph: 03 9727 2997
 Fax: 03 9727 4632
<http://www.pcaa.org.au>

Helpline: 1300 885 209

Bowel Group for Kids Inc

Phone: 02 4659 6067
 Fax: 02 4659 6381
 Email: enquiries@bgk.org.au
<http://www.bgk.org.au>

School assistance – education departments

The family must discuss issues around soiling with the school principal. An assessment of the situation is carried out and a care plan developed (between relevant stakeholders, eg health professional, teacher and parents. In some cases the school can apply to the Department of Education for further assistance (eg extra funding for school aides).

NSW Department of Education and Training

GPO Box 33
 Sydney NSW 2001
 Ph: 02 9561 8000
<http://www.det.nsw.edu.au>

- Student health policies
- Policy for children with disabilities and incontinence
- Bladder and bowel problems must be discussed with school principal



WA Department of Education and Training

151 Royal Street
 East Perth 6004
 Ph: 08 9264 4111
 Fax: 08 9264 5005
<http://www.eddept.wa.edu.au>

- Student health policies
- Bladder and bowel problems must be discussed with school principal

SA Department of Education and Children's Services

31 Flinders St
 Adelaide 5000
 Ph: 08 8226 1527
 Toll free: 1800 088 158
<http://www.decs.sa.gov.au>

Excellent resources on the website:

- School sports – Faecal matter management
- Guidelines – Personal Care and Support Planning
- Discuss with school principal

VIC Department of Education and Training

2 Treasury Place
 Melbourne Vic 3002
 Ph: 03 9637 2000
<http://www.education.vic.gov.au>

- Student health policies

QLD Department of Education and the Arts – Education Queensland

Education House
 30 Mary St
 Brisbane Qld 4000
 Ph: 07 3237 0111
<http://education.qld.gov.au>

- Student health policies
- Role of the teacher aide in managing bowel and bladder incontinence

Nursing Manager Student Services

Disabilities Support Unit
 141 Merton Rd
 Woolloongabba
 QLD 4102
 Ph: 07 3240 9303



Family and Child Health Teams and Mental Health Teams

Family and child health teams (including psychologists) can be accessed by contacting your local community health centre. Mental Health Teams can also be accessed this way.

The Australian Psychological Society

This is the largest professional association for psychologists in Australia, representing more than 15,000 members. Private psychologists can be accessed via this organisation, including clinical psychologists.

Postal address

PO Box 38
 Flinders Lane Post Office
 Melbourne
 VIC 8009
 Ph: 03 8662 3300
 Toll free: 1800 333 497
 Fax: 03 9663 6177
 Email: contactus@psychology.org.au
<http://www.psychology.org.au>

Child and Youth Mental Health Services (CYMHS)

CYMHS is a Queensland based service offering guidance on appropriate services for patients needing psychological support for associated difficulties with their ongoing medical issues. Further information is available at:
<http://www.health.qld.gov.au/townsville/IMHS/CYMHS/CYMHS.asp>

The Australian Physiotherapy Association of Australia

The Australian Physiotherapy Association of Australia has approximately 11,000 members, some 70 staff, and over 300 members in volunteer positions on committees or working parties.

The organisation can provide the names of continence physiotherapists who have post-graduate qualifications in continence management. Further information is available on their website at:

<http://www.apa.advsol.com.au>

Occupational Therapy Australia

Occupational therapists can help in many different ways as part of the integrated team. What occupational therapists can offer may vary for different settings and from state to state. Further information on what is available in each state can be accessed by contacting Occupational Therapy Australia at: <http://www.ausot.com.au>



CONSTIPATION IN CHILDREN

Paediatric Continence Association of Australia

The Paediatric Continence Association of Australia (PCAA) is a volunteer-based organisation dedicated to providing education, information, support and advocacy for children and young people who suffer incontinence. It has a number of support services for parents, including individual counselling via phone or in person, information on referring to professional local services as well as fact sheets and a paediatric continence handbook.

The NIDKIDS 'How to sit on the toilet to do a poo' poster can be downloaded from this site at:
<http://www.pcaa.org.au/TOILET%20POSTER%20013754.pdf>

<http://www.pcaa.org.au>

Education and resources for Improving Childhood Constipation (ERICC)

This is a UK website for bowel problems in children and it can be accessed using the web address listed below. Some of the information booklets for parents include:

- Growing up and coping with bedwetting – a helpful guide
- Potty and toilet training – a helpful guide to parents
- Get Going! Be regular and learn to manage your bowels
- Nights away no worries – tips on how to manage wetting and soiling problems when staying away from home

<http://www.eric.org.uk>

<http://www.childhoodconstipation.com>

This UK website, sponsored by Norgine UK, has practical information on bowels and constipation. Its main sections are:

- About constipation
- Childhood constipation
- Real life stories
- Treatments
- Extra information (other relevant UK websites)

A copy of The Bristol Stool Form Scale for children can be downloaded from this site at:
http://www.childhoodconstipation.com/Documents/Extra_Documents/BristolStool.pdf
or found in the Patient Information and Tools section of the CD.

<http://www.childhoodconstipation.com>



ROLE OF ALLIED HEALTH PROFESSIONALS IN BEHAVIOURAL TOILETING PROGRAM

Allied Health Professionals can offer services in different settings from state to state. Services can be provided by paediatric physiotherapists, continence nurses, continence physiotherapists, psychologists or occupational therapists.

Allied health professionals aim to support children in achieving mastery of essential daily living skills. A behavioural toileting program can assist the child to achieve control of bowel function for personal, parental and peer acceptance and therefore supporting and encouraging independence.

These professionals can help in many different ways:

- Helping the parents and child to set appropriate and achievable goals that suit their individual family situations.
- Providing information and education to facilitate structured toileting routines.
- Problem solve regarding factors in the physical environment that may impact on the child's toileting routine.
- Providing training on positive parenting techniques eg the use of a star chart to record successful toileting sessions.
- Providing behaviour management strategies for parents.
- Providing education to the child and parents on the digestive process and the importance of maintaining regular bowel habits.
- Allow supportive opportunities for the child to practice toileting techniques and learn muscle control.
- Provide information and age appropriate resources to support the child during the behavioural toileting program.

How a toileting program works – an example from the Mater Children's Hospital, Qld:

- A behavioural toileting program has most success if the child is seen by a GP or paediatrician before commencing a behavioural toileting program.
- Children may require hospital admission to complete a disimpaction (a clean out so no hard faeces remain).
- The occupational therapy behavioural toileting program will start at this time.
- After discharge from hospital or following medical review a block of Occupational Therapy will be offered and will include the child and the family.
- After this block of therapy, follow-up phone calls may occur to continue monitoring progress and until the child develops toileting independence.