

Beyond Discomfort

The true cost of constipation in ageing populations



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Constipation is highly prevalent among older adults and is frequently under-recognised in clinical practice. Beyond discomfort, it contributes to malnutrition risk, increased healthcare utilisation, and reduced quality of life. This article explores the clinical and economic burden of constipation in ageing populations and highlights the central role of dietitians in prevention and management.

Introduction

Constipation is one of the most common gastrointestinal disorders in older adults, yet it remains underreported and frequently normalised as part of ageing. Constipation is highly prevalent among older adults in the UK; historical studies found that in patients aged 65 and older, approximately 26% of men and 34% of women complain of constipation,¹ a figure that is likely to have only increased. It is generally accepted that the prevalence of constipation increases with age,² and can reach 33.5% in community-dwelling people over 60 years old.³ In care homes, UK data showed that up to 59% of residents are routinely prescribed laxatives.⁴ This high level of prescribing reflects the complex interplay of frailty, multimorbidity, immobility and polypharmacy, all of which contribute to impaired bowel function. Evidence from the UK further demonstrates that constipation-related consultations and laxative prescribing increase markedly with age. Despite this, constipation remains under-recognised and variably managed, with prescribing practices not always aligned to individual need. These findings highlight the importance of proactive, holistic bowel care, including dietary strategies alongside pharmacological management, particularly in care home populations.

Adequate fibre intake is a key component of bowel health and function. Findings from the most recent National Diet and Nutrition Survey⁶ show that most adults are not meeting fibre recommendations, furthermore intake decreases with increasing age, with adults over 75 years of age consuming on average 16.4 g per day compared to 30 g recommended.⁷

In the UK, constipation represents a growing clinical and financial burden due to population ageing, multimorbidity and polypharmacy.⁸ Despite this, it is often considered a low-priority condition until complications arise. Constipation can lead to various gastrointestinal complications, including faecal impaction, overflow diarrhoea, haemorrhoids and, in severe cases, bowel obstruction. In frail older adults, these complications can often result in hospital admission and functional decline.^{9, 10} The effects of constipation on frailty and functional ability are wide-reaching; it is associated with reduced mobility, increased risk of delirium in hospitalised patients, decline in independence, and poorer quality of life.^{11, 12}

The Rome IV criteria¹³ are symptom-based and widely used in both research and clinical practice to standardise diagnosis of functional gastrointestinal disorders. The criteria define functional constipation based on the presence of specific symptoms for at least 3 months (with onset ≥ 6 months prior), in the absence of structural or biochemical causes – see **Table 1**.

Table 1: Rome IV Diagnostic Criteria

Rome IV Diagnostic Criteria (must include ≥ 2 of the following):

- Straining during $>25\%$ of defecations
- Lumpy or hard stools (Types 1–2 on Bristol Stool Form Scale) in $>25\%$ of defecations
- Sensation of incomplete evacuation in $>25\%$ of defecations
- Sensation of anorectal obstruction/blockage in $>25\%$ of defecations
- Manual manoeuvres (e.g. digital evacuation, pelvic floor support) in $>25\%$ of defecations
- Fewer than 3 spontaneous bowel movements per week
- Loose stools are rarely present without laxative use
- Criteria for irritable bowel syndrome are not met

Constipation as a multifactorial geriatric syndrome

A recent review recognised constipation in older adults as a multifactorial geriatric syndrome, rather than a single-condition diagnosis, reflecting the complex interplay between age-related physiological changes, comorbidities, polypharmacy and lifestyle factors.¹⁴ Reduced colonic motility, impaired rectal sensation, and pelvic floor dysfunction, are compounded by low fibre and fluid intake, reduced mobility and cognitive impairment – see **Table 2**.

Management should be individualised, starting with assessment and prioritising non-pharmacological approaches. Dietitians should focus on targeted dietary strategies rather than generic high-fibre advice, especially in frail individuals where tolerance may be limited. Pharmacological treatment may be needed but should complement dietary and behavioural interventions within a holistic, person-centred approach to optimise bowel function and quality of life.

Table 2: Causes & risk factors of constipation in older adults¹⁴

Metabolic conditions	Hypokalaemia, hypercalcemia, hyperglycaemia, chronic renal insufficiency
Endocrine disorders	Diabetes mellitus, hypothyroidism, porphyria, panhypopituitarism
Neurological disorders	Autonomic neuropathy, multiple sclerosis, Parkinson's disease, spinal cord injury, dementia, delirium, stroke
Myopathic disease	Amyloidosis, chronic intestinal pseudo-obstruction, dermatomyositis, scleroderma, myotonic dystrophy
Intestinal disorders	Adenoma, malignancy, diverticulitis/diverticulosis, adhesions, obstruction, hernia, foreign bodies, faecal impaction, inflammatory bowel disease, stenosis, ischemia, reduced colonic motility
Anorectal abnormalities	Rectocele, anal fissures/fistula, anal stenosis, proctitis, inflamed or thrombosed haemorrhoids
Medications	Polypharmacy, steroids, analgesics (NSAIDs and opioids), antacids containing aluminium or calcium, anticholinergics, anticonvulsants, antipsychotics, antidepressants (TCAs, SNRIs, antihistamines, antihypertensives, anti-Parkinson medications, bile-binding agents, calcium or iron supplements, diuretics
Lifestyle	Diet (low fibre, low intake, very high fibre, high protein), sedentary lifestyle, travel, dehydration, ignoring the urge to defecate, anorexia
Idiopathic	

The UK NHS economic burden

Constipation represents a significant and largely preventable cost to the NHS. The *Cost of Constipation Report*, published in 2020, outlined the economic cost of constipation to the UK health system in 2018-19.⁸ Direct costs:

- Estimated £168 million spend by NHS England on treating constipation in 2018-19.
 - Total cost to hospitals for treating unplanned admissions due to constipation was around £81 million.
 - Additionally, £87 million annually was spent on laxative prescriptions.
- Constipation in the UK healthcare system contributes to:
- 76,929 admissions in 2018-19, equivalent to 211 hospital admissions per day, one third of which were unplanned emergency admissions
 - High proportion in older adults (>65 years)
 - Major driver of repeat GP prescribing
 - Significant nursing and care home workload
 - Increased district nursing input
 - Increased carer burden and demand on care home staff
 - Delayed hospital discharge.

Constipation & malnutrition: A vicious cycle

Depboylu *et al.* conducted a cross-sectional study in adults aged >65 years in Turkey, assessing constipation (Rome IV, Bristol Stool Scale), dietary intake (24-hour recall), nutritional status (Mini Nutritional Assessment), and physical activity. Constipation affected 29.6% of participants and was associated with lower energy, fibre, fluid and micronutrient intakes. Low fibre intake and malnutrition increased risk, while moderate fluid intake was protective. The authors describe a vicious cycle in which poor intake contributes to constipation, which in turn reduces appetite and worsens nutritional status, further increasing risk, compounded by age-related gastrointestinal changes – see **Figure 1**.¹⁵ Low fibre intake and malnutrition were independently associated with higher constipation risk, whilst moderate water intake was protective. Overall, poor nutritional status emerged as a key determinant of constipation in older adults.

The link between constipation and sarcopenia is demonstrated in another recent systematic review. The findings of the review support the plausibility of conceptualising constipation in older adults as a systemic geriatric syndrome,¹⁶ and supporting the need for holistic assessments of individuals with constipation.

Constipation & cognitive impairment

Constipation has also been linked to a decline on cognition. A 2025 systematic review and meta-analysis examined the association between constipation and cognitive impairment (CI) across 11 observational

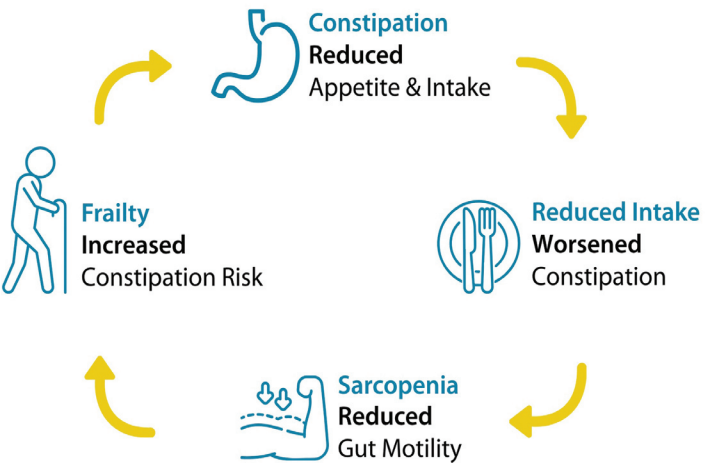
studies involving 66,609 participants. The findings indicate that constipation is associated with a modest but statistically significant increase in the risk of CI (OR 1.11; 95% CI 1.03–1.20), suggesting it may represent a clinically relevant, modifiable risk factor in ageing populations.¹⁷ Mechanistically, the association is likely mediated via the gut–brain axis.¹⁸ The review explores the association between constipation and gut microbiota dysbiosis, reduced short-chain fatty acid production, and increased intestinal permeability, and that these changes may promote systemic inflammation (e.g. elevated IL-6 and TNF-α), which can contribute to neuroinflammation and hippocampal dysfunction. Additionally, altered vagal signalling and neurotransmitter synthesis may further impair cognitive processes.¹⁷

For dietitians, these findings reinforce the importance of gastrointestinal health in cognitive outcomes. Interventions targeting fibre intake, microbiome modulation and bowel regularity may have broader implications beyond digestive health, potentially contributing to cognitive risk reduction.

Dietetic assessment

Dietitians should routinely include bowel function assessment as a key indicator of gastrointestinal health and dietary adequacy. They should embed bowel care within personalised nutrition plans, setting clear targets for fibre and fluid intake alongside overall nutritional goals. Dietitians also play an important role within multidisciplinary teams, supporting early identification and timely intervention to help prevent complications and reduce avoidable hospital admissions related to bowel dysfunction.

Figure 1: Vicious cycle of constipation & malnutrition¹⁵



Adapted from Depboylu *et al.* 2023

Key assessment components should include:

- Fibre intake (type + quantity) vs. recommendations
- Fluid intake (actual vs perceived)
- Meal pattern and appetite
- Bowel function and frequency (stool diary, leakage, urgency, incomplete evacuation, Bristol stool chart)
- Mobility and functional ability
- Cognitive function
- Dentition and swallowing ability
- Medication burden
- Fibre supplementation
- Nutritional status and risk.

Management strategies

Management strategies for constipation in older adults depend on the type and severity of constipation, comorbidities, functional status, and preferences. In the absence of other systemic or alarming symptoms, patient education should be the first step in managing geriatric constipation.¹⁴ Treatment can be split into non-pharmacological and pharmacological interventions – see **Table 3**. The recent review conducted by Mimura and colleagues proposes a conceptual framework for the management of constipation in older adults¹⁶ – see **Table 4**.

The BDA *Dietary Guidelines for Chronic Constipation in Adults* provide the first evidence-based, diet-focused recommendations for managing chronic constipation, including in older adults. The guidelines emphasise individualised, symptom-targeted dietary strategies, recognising that constipation is heterogeneous and common in ageing populations.¹⁹ It should be noted that the publication provides a clinical guide, but much of the evidence was rated as low or very low certainty and further robust clinical trials are required in this area.

Fibre optimisation and dietary interventions:

- Increase gradually
- Balance soluble and insoluble fibre dependent on symptoms
- Kiwifruit (2-3 daily) for at least 4 weeks¹⁹
- Prunes (8-10 daily)¹⁹
- Psyllium fibre (≥ 10 g/day)¹⁹
- Magnesium oxide 0.5-1.5 g/day for at least 4 weeks¹⁹
- Utilise fibre supplements if unable to meet from diet alone.

Hydration:

- Older adults are at high risk of dehydration due to reduced thirst and dependence on carers.
 - High water content foods
 - High mineral content water (0.5–1.5 L/day).¹⁹

Table 4: Conceptual framework for the management of constipation in older adults¹⁶

Step 1	Confirm diagnosis	• Apply Rome IV criteria • Assess stool frequency • Assess stool consistency (Bristol stool chart) • Assess for alarm symptoms	Exclude sedentary causes • Obstruction • Malignancy • Severe metabolic disorders
Step 2	Identify reversible causes	• Review medications • Assess hydration, fibre intake • Assess neurological disorders • Evaluate toileting environment	Polypharmacy is a major modifiable risk contributor
Step 3	Non-pharmacological management	• Nutritional optimisation • Physical activity • Defecation habits and posture	Prioritise these as they promote autonomy and have low risk of adverse effects
Step 4	Osmotic laxatives Novel agents	• Polyethylene glycol (PEG) • Magnesium preparations • Elobixibat* • Linaclotide/lupiprostone*	Monitor for hyper-magnesemia in patients with renal dysfunction
Step 5	Stimulant laxatives (Intermittent use)	• Senna • Bisacodyl	Avoid chronic use to prevent tolerance, dependence, and colonic melanosis
Step 6	Targeted and specialised management	• Opioid-induced constipation • Microbiota-targeted therapy (synbiotics/probiotics) • Chronic idiopathic constipation (prucalopride)	Individualised approach recommended
Step 7	Monitoring and prevention of complications	• Prevent serious events • Cardiovascular safety • Holistic re-evaluation	Monitor for faecal impaction, stercoral ulcers, bowel obstruction and delirium

*Not currently available in UK/in clinical trials.

Key strategies:

- Little and often drinks
- Preferred beverage choices
- Fluid-rich foods
- Fibre-containing oral nutritional supplements
- Appropriate texture and consistency food and fluids to support chewing/swallowing difficulties
- Nutritional support for reduced appetite and early satiety
- Risk of over-fibering without adequate intake
- Toilet positioning
- Encouraging activity where possible.

Conclusion

Constipation in older adults is common and affects nutrition, wellbeing, and frailty risk. Early dietetic intervention, including individualised advice on fibre and hydration, is key to prevention and management. Dietitians are well placed to deliver proactive, cost-effective care, making nutritional management a core component of constipation management in this population.

Table 3: Non-pharmacological & pharmacological management strategies

Non-pharmacological interventions
• Dietary modification • Gastrocolic reflex • Exercise • Fluid intake • Other: Biofeedback, abdominal massage, digital removal
Pharmacological interventions
• Laxatives ◦ Bulk forming laxatives ◦ Osmotic laxatives ◦ Stimulant laxatives • Other medication ◦ Prucalopride ◦ Secretagogues – Linaclotide • Other agents ◦ Probiotics ◦ Stool softeners ◦ Suppositories ◦ Enemas ◦ Acetylcholinesterase inhibitors

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