

Table 24.4 Medications Used to Treat Constipation

Medication	Indications	Onset	Side effects affecting rehab	Other side effects, drug interactions, and considerations
Bulk-forming laxatives				
Bran: Psyllium preparations (Metamucil) Methylcellulose (Citrucel) Calcium polycarbophil (Fibercon)	Used on routine basis to prevent constipation by absorbing water from the bowel lumen to increase stool bulk.	Up to 3 days	Cog: 0 S: 0 A: 0 Motor: 0 D: + Com: 0 F: 0	May be used chronically. Side effects: Bloating, gas, stomach pain. These products absorb water from the bowel lumen to increase bulk and should be taken with adequate fluid to prevent impaction and bowel obstruction. Contraindications: Patients with bowel obstruction, megacolon, and megarectum.
Hyperosmotic laxatives				
Lactulose (Chronulac)	Hyperosmotic laxative with surfactant properties; nonabsorbed disaccharide sugar that is split by colonic bacteria into galactose and fructose, leading to production of short-chain fatty acids.	0.5-3 h	Cog: 0 S: 0 A: 0 Motor: + D: ++ Com: 0 F: +	May be used on chronic basis in patients with liver disease. Side effects: Flatulence, intestinal cramps. Chronic use can result in fluid and electrolyte imbalances and dehydration. Drug interactions: Do not use concurrently with antacids, which can change the pH of the bowel and decrease effectiveness.
Polyethylene glycol (Golytely, Colyte, Miralax)	Hyperosmotic laxative used on chronic or as-needed basis; increases osmotic gradient in the bowel and draws water into the bowel's lumen, increasing bowel motility and stool transit time.	0.5-3 h	Cog: 0 S: 0 A: 0 Motor: + D: ++ Com: 0 F: +	Golytely or Colyte not for chronic use. Side effects: Flatulence, intestinal cramps. May cause fluid and electrolyte disorders.
Saline osmotic laxatives				
Citrate of magnesia Milk of magnesia Fleet's phosphosoda	Osmotic laxative used on as-needed basis; increases osmotic gradient in the bowel, and draws water into the bowel's lumen, increasing bowel motility and stool transit time.	0.5-6 hrs	Cog: 0 S: 0 A: 0 Motor: + D: ++ Com: 0 F: +	For short-term use only. Side effects: Chronic use can result in fluid and electrolyte imbalances and dehydration. Contraindications: Not recommended in patients with kidney or heart disease.
Stimulant laxatives				

Medication	Indications	Onset	Side effects affecting rehab	Other side effects, drug interactions, and considerations
Bisacodyl (Dulcolax, Modane, Correctol)	Stimulant laxatives used on as-needed basis in most patients; may be used routinely to prevent constipation in patients taking chronic opioids. Directly stimulates enteric neurons and muscle to promote inflammation and accumulation of water and electrolytes to promote gastrointestinal motility.	6-8 h	Cog: 0 S: 0 A: 0 Motor: + D: ++ Com: 0 F: +	May be used on chronic basis in patients on chronic opioid therapy. Side effects: Chronic use may result in cathartic colon, fluid and electrolyte imbalances, and dehydration. Dulcolax and Correctol are enteric coated to prevent irritation of the stomach mucosa and should not be crushed or chewed.
Senna (Senokot)	Directly stimulates enteric neurons and muscle to promote inflammation and accumulation of water and electrolytes to promote gastrointestinal motility.	6-12 h	Cog: 0 S: 0 A: 0 Motor: + D: ++ Com: 0 F: +	May be used on chronic basis in patients on chronic opioid therapy. Side effects: Chronic use may result in cathartic colon, fluid and electrolyte imbalances, and dehydration.
Stimulant products no longer recommended for routine use				
Cascara Castor oil Phenolphthalein	Stimulant agents with toxic effects on the intestinal epithelium and enteric neurons are no longer recommended for routine use. The phenolphthalein products were discontinued in the United States due to concerns about carcinogenicity.			
Stool softeners (wetting agents)				
Docusate sodium (Colace) Docusate calcium (Surfak)	Used on an as-needed or chronic basis to prevent constipation. Coats the stool and lowers the surface tension of the stool to allow mixing of water and fatty deposits, softening the stool to ease defecation; stimulates secretion of intestinal fluid and electrolytes, altering intestinal wall permeability.	1-3 days	Cog: 0 S: 0 A: 0 Motor: + D: + Com: 0 F: +	Side effects: Flatulence, intestinal cramps.
Emollient products are no longer recommended for routine use				
Mineral oil	Coats stool to assist with passage.	1-3 days	Cog: 0 S: 0 A: 0 Motor: +	No longer recommended; interferes with absorption of fat-soluble vitamins. Can cause rectal leakage, and, if aspirated, can cause pneumonitis.

From L. Carl, J. Gallo, and P. Johnson, 2014, *Practical Pharmacology in Rehabilitation: Effect of Medication on Therapy* (Champaign, IL: Human Kinetics).

Medication	Indications	Onset	Side effects affecting rehab	Other side effects, drug interactions, and considerations
			D: + Com: 0 F: +	
Enemas				
Saline Tap water Sodium phosphate (Fleet's)	Administered fluid stimulates an evacuation reflex, distending the bowels.	1-3 hrs	Cog: + S: 0 A: 0 Motor: ++ D: + Com: 0 F: ++	Saline enemas are associated with the least number of complications. Repeated tap-water enemas can cause hyponatremia, and repeated sodium phosphate (Fleet's) enemas can cause hypocalcemia. Monitor for dehydration, electrolyte disturbances, and abdominal cramps.
Opioid antagonist				
Methylnaltrexone (Relistor)	Constipation associated with palliative opiate therapy.	24 h	Cog: + S: 0 A: 0 Motor: + D: ++ Com: + F: ++	Dosing: 8 mg subcutaneously for patients weighing <132 pounds; 12 mg for patients weighing 133- 250 pounds. Usually dosed every 24-48 h. Side effects: Abdominal cramps (30%), flatulence (40%), fever, dizziness, diarrhea, nausea.

Cog = cognition; S = sedation; A = agitation or mania; Motor = discoordination; D = dysphagia; Com = communication; F = falls.

The likelihood rating scale for encountering the side effects is as follows: 0 = Almost no probability of encountering side effects. + = Little likelihood of encountering side effects. +/+ = Low probability of encountering side effects; however, probability increases with increased dosage. ++ = Medium likelihood of encountering side effects. +++ = High likelihood of encountering side effects, particularly with high doses. ++++ = Highest likelihood of encountering side effects; best to avoid in at-risk patients.