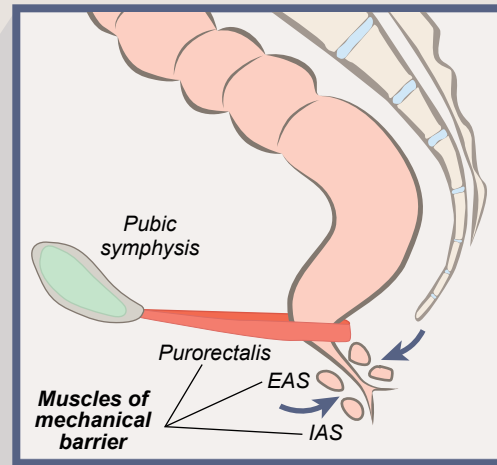
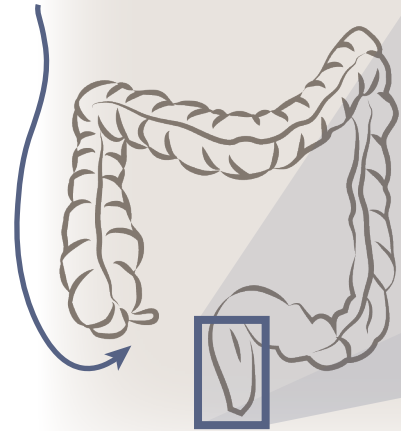


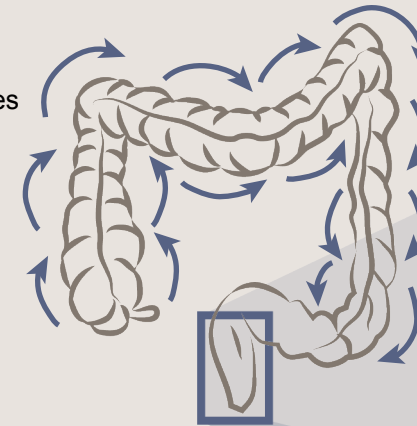
Basal Phase

1 Normal gastrointestinal functions propel luminal contents away from mouth

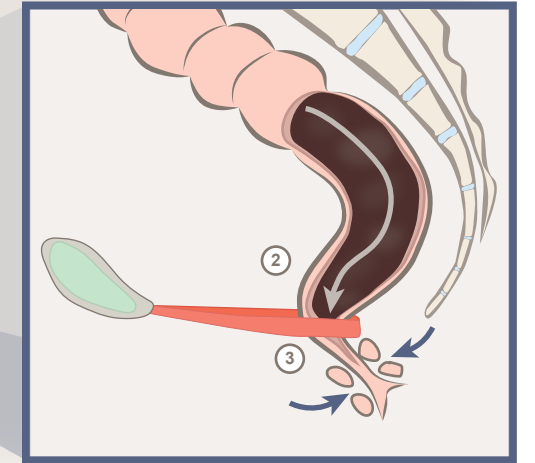


Pre-Expulsive Phase

1 Peristaltic waves begin in the proximal colon, stimulating distal colonic and rectal nerves



2 Gradual distension of the rectum produces a sustained and eventually intense urge to defecate



Four Phases of Defecation

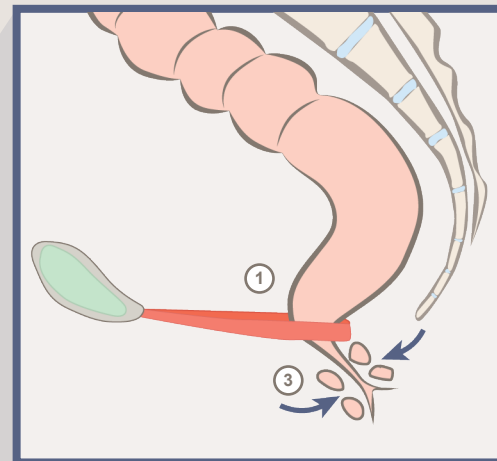
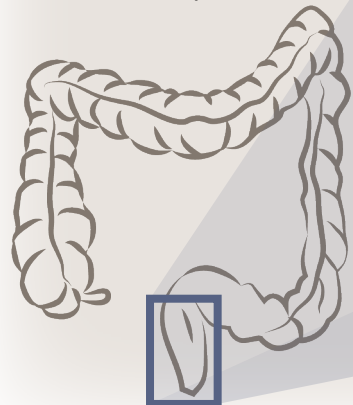
3 If defecation is inconvenient, the pelvic floor and external sphincter contract, and defecation is deferred

Even in healthy individuals, deferment may not always be possible

4 Return to basal phase

3 The external sphincter exhibits a "closing reflex" that shuts the anal canal

2 Rectal pressure no longer exceeds anal pressure

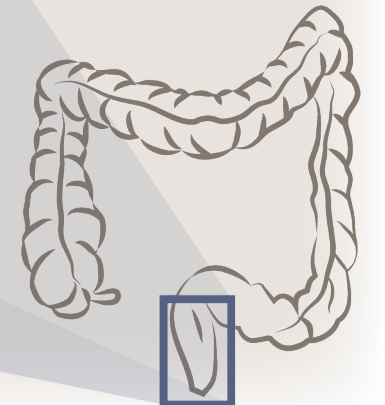
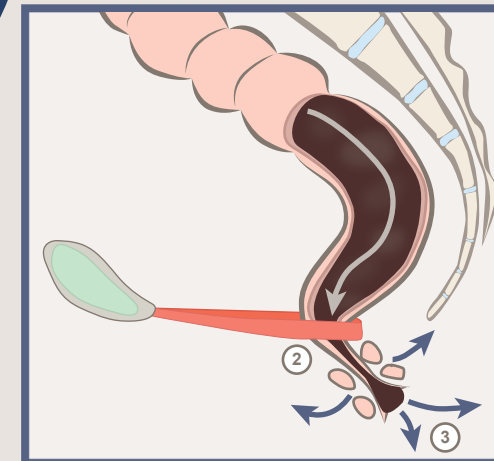


1 Semi-voluntary control (cued by the sensation of complete emptying) combines with involuntary contraction of the sphincter and pelvic floor

3 Expulsion occurs when rectal pressure becomes greater than anal pressure

1 If defecation is convenient, a suitable posture is assumed, and the pelvic floor and sphincter relax

2 Involuntary colorectal motor activity combines with voluntary straining



Termination

Expulsive Phase

