



## SCIENTIFIC REVIEW OF FECAL INCONTINENCE

Fecal incontinence (FI) means involuntary loss of rectal content such as solid and liquid stool, mucus or flatus. FI is not a diagnosis but a symptom. It is considered a stigmatizing condition, and fear of having an accident in public restricts the social and working life for those who experience it. Although there are many treatment options, their long-term efficacy is poorly investigated.

Fecal incontinence is a common condition. Reported prevalence of fecal incontinence in community-dwelling residents varies, and true numbers are difficult to obtain. Numbers are lower when A) personalized data collection such as face-to-face interviews is used in comparison to internet or postal survey data collection<sup>1</sup>, B) if episode frequency is set too high (more than several times a month)<sup>1</sup> or C) when the definition of fecal incontinence includes stool but not flatus.<sup>1,2</sup>

Prevalence is also usually higher in recent studies (8.4 – 47%) compared with older literature, possibly reflecting changed attitudes and definitions used.<sup>1,3-6</sup> For example, in a study published in 2018 among 71,812 individuals in the US, 14% reported on fecal incontinence, and 4.3% had experienced it within the last 7 days.<sup>7</sup> Since there is a link between fecal incontinence and sphincter rupture in obstetric trauma<sup>2</sup>, a higher prevalence in women than in men is commonly assumed. However, there are conflicting data about prevalence differences between men and women. In two large studies on US residents,<sup>3,7</sup> there seems to be a higher prevalence in men.

Other studies did not report a gender difference<sup>5</sup>, or noted a higher prevalence among women.<sup>8</sup> Risk factors associated with fecal incontinence are increasing age,<sup>3,5-</sup><sup>7,9,10</sup> chronic diarrhea/bowel disorder,<sup>4-7,10</sup> anorectal surgery/radiotherapy,<sup>10</sup> urinary incontinence,<sup>3-5</sup> and obstetric trauma involving the sphincter.<sup>2,11</sup>

Persons with neurological disease or injury also often experience fecal incontinence, as do those living with congenital malformations and cognitive disorders.<sup>10</sup> The social and psychological impact of living with FI is huge, and a negative correlation between FI and quality of life is well established in the literature.<sup>12-15</sup>

Being unable to maintain fecal control is taboo in most cultures and associated with feelings of embarrassment. Fear and anxiety about having an accident in public is the major reason why people with FI are restricted in participating in social events outside the home or even in work. In the study on US women aged >45 years by Brown et al,<sup>15</sup> almost 30% of people with FI frequently felt depressed, and 40% were categorized as having severe impact on their quality of life. Almost half of the subjects had not discussed their condition with a friend, partner or loved one, which highlights the taboos surrounding FI. This is further reflected in the low percentage (29%) of patients who had discussed their bowel problems with a healthcare provider.

Management of FI is empirical and individualized. First line treatment almost always includes dietary adjustments to achieve a proper stool consistency. This may include fiber supplements and antidiarrheal medication. Pelvic floor muscle exercise and biofeedback strategies are of limited help. Transanal irrigation can be successful, especially for people with neurological conditions.<sup>16,17</sup> Injection of bulking agents to tighten the anal sphincter has resulted in some improvements, as has sacral nerve stimulation via an implant. Surgical interventions to repair or construct an anal sphincter are more invasive, with complications limiting their use. Despite this variety of treatment options, clinical evidence of efficacy for most of them is poor,<sup>18-21</sup> and many people do not achieve a significant and long-term improvement in reduction of FI episodes. This means that many patients are dependent on barrier protection or anal plugs to manage their bowel problems.



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