

TITLE: National Health and Nutrition Examination Survey (NHANES) of Fecal Incontinence: Prevalence by Sex, Age, Race, Marital Status, Education, and Income

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ABSTRACT BODY: Aim: To characterize the prevalence of fecal incontinence (FI) in a representative national survey of American adults. **Methods:** Questions from the Fecal Incontinence Severity Index (Dis Colon Rectum 1999;42:1525), which asks about the frequency of accidental bowel leakage during the last month separately for gas, mucus, liquid, and solid stool, were included in the NHANES survey in 2005 and 2006. FI was defined as any involuntary loss of mucus, liquid, or solid stool; this definition of FI does not include gas. NHANES over-samples minorities and the elderly for increased precision; it provides weights for each subject’s data to obtain estimates for the national population. Subjects were 2079 males and 2229 females aged 20 or older. Prevalences (in percent) for the national population are estimated and their 95% confidence intervals (CI) are given in brackets.

Results: The estimates of prevalence of FI are 8.8% [7.1-10.4%] in adult women and 7.7% [6.0-9.4%] in adult men. Prevalence increased with age (see Table; p=0.0022 for males, p=0.0003 for females) and varied slightly with race (females: p=0.033; males: p=0.22). Subjects who were widowed, separated, or divorced tended to have more FI (females: p=0.0089; males: p=0.26), but the differences were not significant after adjusting for age. Education and income were not significantly related to FI. **Conclusions:** FI is very common, affecting an estimated 8.8% of women and 7.7% of men which corresponds to 8.4 million women and 6.9 million men in the USA. Prevalence increases progressively with age.

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		Females	Males
Age	20-39 yrs	2.8% [1.2-4.5%]	2.4% [1.0-3.9%]
	30-39 yrs	3.5% [1.6-5.4%]	6.8% [3.5-10.1%]
	40-54 yrs	9.5% [6.3-12.7%]	8.3% [6.4-10.3%]
	55-69 yrs	15.8% [10.2-21.4%]	10.0% [4.1-15.9%]
	≥70 yrs	13.6% [8.5-18.6%]	12.3% [8.0-16.7%]
Ethnicity	Hispanics	5.4% [3.1-7.8%]	5.3% [2.9-7.8%]
	Non-Hisp Caucasians	9.5% [7.4-11.6%]	8.1% [6.0-10.1%]
	African American	7.7% [4.7-10.6%]	7.0% [4.6-9.5%]
	Other races	7.6% [3.4-11.9%]	9.4% [3.4-15.5%]
Marital Status	Widowed, separated, divorced	11.9% [8.0-15.8%]	9.9% [5.3-14.5%]
	Married or cohabiting	8.3% [6.1-10.5%]	7.8% [5.8-9.8%]
	Never married	5.7% [2.2-9.2%]	5.5% [2.98.2%]
Education	Less than high school	10.8% [6.6-14.9%]	7.6% [5.6-9.7%]
	HS diploma	9.4% [6.7-12.2%]	7.0% [4.2-9.9%]
	More than high school	8.0% [5.6-10.4%]	8.0% [6.2-9.9%]
Family Income	≤1.85 poverty level	10.0% [7.3-12.7%]	8.0% [4.9-11.0%]
	>1.85 poverty level	8.2% [6.2-10.3%]	7.4% [5.1-9.7%]