

Epidemiology of LUTS

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Lower urinary tract “symptoms”?

- What do we mean?
- Everyone* experiences urge
- Everyone* experiences frequency
- Lots of people experience nocturia



So what do we know from population surveys?

- EPIC





EPIC

- Population based
- Cross-sectional survey
- Telephone interviews
- Canada, Germany, Sweden, UK, Italy
- Using 2002 ICS definitions
- Prevalence estimates of storage, voiding, and postmicturition LUTS calculated
- Data were stratified by country, age cohort, and gender





	Men				Women			
	≤39 y	40-59 y	≥60 y	Total	≤39 y	40-59 y	≥60 y	Total
	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)	n* (%†, 95%CI)
Storage symptoms								
Any storage symptom	964 (37.5, 35.9-39.0)	1469 (50.6, 48.9-52.4)	1413 (73.9, 72.1-75.7)	3846 (51.3, 50.3-52.3)	1916 (48.9, 47.3-50.6)	2780 (56.3, 54.6-58.0)	2434 (74.5, 73.0-76.1)	7130 (59.2, 58.3-60.2)
(nocturia ≥ 1 time/night)								
Any storage symptom	465 (17.9, 16.6-19.1)	748 (25.0, 23.6-26.5)	864 (43.6, 41.6-45.6)	2077 (26.9, 26.0-27.8)	1025 (26.0, 24.5-27.4)	1638 (32.0, 30.4-33.6)	1577 (46.5, 44.7-48.2)	4240 (34.2, 33.3-35.2)
(nocturia ≥ 2 times/night)								
Nocturia (≥1 time/night)	886 (34.5, 33.0-36.1)	1387 (47.8, 46.1-49.5)	1369 (71.9, 70.0-73.7)	3642 (48.6, 47.6-49.6)	1741 (43.9, 42.3-45.5)	2513 (51.0, 49.3-52.8)	2278 (70.8, 69.2-72.4)	6532 (54.5, 53.5-55.5)
Nocturia (≥2 times/night)	334 (12.9, 11.9-14.0)	576 (19.5, 18.1-20.8)	704 (35.2, 33.3-37.2)	1614 (20.9, 20.0-21.7)	690 (16.9, 15.7-18.1)	1097 (21.0, 19.6-22.4)	1152 (35.6, 33.9-37.3)	2939 (24.0, 23.1-24.8)
Urgency	168 (7.1, 6.3-8.0)	263 (8.9, 7.9-9.8)	362 (19.1, 17.5-20.7)	793 (10.8, 10.1-11.4)	372 (9.7, 8.8-10.7)	577 (11.2, 10.1-12.3)	616 (18.3, 16.9-19.6)	1565 (12.8, 12.2-13.5)
Frequency	122 (4.6, 4.0-5.3)	180 (5.9, 5.1-6.7)	219 (11.4, 10.1-12.7)	521 (6.8, 6.3-7.3)	296 (7.9, 7.0-8.8)	300 (5.8, 5.0-6.6)	280 (8.4, 7.5-9.4)	876 (7.4, 6.9-7.9)
UII	10 (0.4, 0.2-0.6)	41 (1.3, 0.9-1.7)	52 (2.5, 1.9-3.1)	103 (1.2, 1.0-1.5)	41 (1.0, 0.6-1.3)	62 (1.1, 0.7-1.5)	105 (2.5, 1.9-3.0)	208 (1.5, 1.2-1.7)
MUI	10 (0.4, 0.2-0.6)	12 (0.4, 0.2-0.6)	27 (1.2, 0.7-1.6)	49 (0.6, 0.4-0.7)	36 (1.0, 0.6-1.3)	123 (2.4, 1.9-3.0)	158 (4.1, 3.4-4.8)	317 (2.4, 2.1-2.7)
SUI	3 (0.1, 0.0-0.2)	17 (0.6, 0.3-0.8)	29 (1.6, 1.1-2.1)	49 (0.6, 0.5-0.8)	142 (3.7, 3.1-4.3)	386 (7.9, 7.0-8.8)	293 (8.0, 7.1-9.0)	721 (6.4, 5.9-6.9)
Other UI	44 (1.5, 1.1-1.9)	91 (3.0, 2.4-3.6)	103 (5.2, 4.3-6.1)	238 (2.9, 2.6-3.3)	74 (1.7, 1.3-2.1)	114 (2.3, 1.8-2.8)	141 (4.6, 3.9-5.4)	329 (2.8, 2.5-3.1)
Any UI (UII, MUI, SUI, Other)	67 (2.4, 1.9-2.9)	161 (5.2, 4.5-6.0)	211 (10.4, 9.2-11.7)	439 (5.4, 4.9-5.9)	293 (7.3, 6.5-8.1)	685 (13.7, 12.6-14.9)	697 (19.3, 17.9-20.7)	1675 (13.1, 12.4-13.8)
Voiding symptoms								
Any voiding symptom	507 (19.9, 18.6-21.2)	708 (24.1, 22.6-25.6)	723 (37.2, 35.3-39.2)	1938 (25.7, 24.9-26.6)	706 (17.4, 16.2-18.7)	907 (17.0, 15.7-18.3)	830 (24.6, 23.0-26.1)	2443 (19.5, 18.7-20.3)
Intermittency	148 (5.5, 4.8-6.2)	238 (7.6, 6.7-8.5)	298 (14.5, 13.1-16.0)	684 (8.5, 8.0-9.1)	240 (6.0, 5.3-6.8)	319 (6.1, 5.3-7.0)	341 (9.8, 8.7-10.8)	900 (7.2, 6.7-7.7)
Slow stream	109 (3.9, 3.2-4.5)	229 (7.4, 6.5-8.3)	377 (18.9, 17.4-20.5)	715 (8.9, 8.3-9.5)	205 (4.9, 4.2-5.6)	269 (4.9, 4.2-5.7)	294 (9.7, 8.6-10.7)	768 (6.4, 5.9-6.8)
Straining	123 (4.5, 3.8-5.1)	205 (6.9, 6.0-7.8)	180 (10.0, 8.8-11.2)	508 (6.7, 6.2-7.2)	174 (3.5, 2.9-4.1)	184 (3.3, 2.7-3.9)	166 (5.2, 4.4-6.0)	517 (4.0, 3.6-4.3)
Terminal dribble	294 (12.2, 11.2-13.3)	380 (13.2, 12.0-14.4)	341 (18.8, 17.2-20.3)	1015 (14.2, 13.5-14.9)	374 (10.1, 9.2-11.1)	473 (8.7, 7.8-9.7)	391 (10.9, 9.8-12.0)	1238 (9.9, 9.3-10.5)





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EpiLUTS

- Cross-sectional
- Population-representative survey
- Conducted via the Internet in the
- USA, the UK and Sweden.
- Participants were asked to rate how often they experienced individual LUTS during the previous 4 weeks
- Five-point Likert scale
- Rate bother



TABLE 2 A summary of the prevalence of LUTS at least 'sometimes' and at least 'often', by gender

Condition, n (%)	Frequency of LUTS			
	at least 'sometimes'		at least 'often'	
	Men	Women	Men	Women
Storage symptoms				
Perceived frequency†, yes	2 895 (20.5)	3 888 (24.6)	2 895 (20.5)	3 888 (24.6)
Nocturia‡ ≥1	9 788 (69.4)	11 977 (75.8)	-	-
Nocturia ≥2	4 021 (28.5)	5 327 (33.7)	-	-
Nocturia ≥3	-	-	1 825 (12.9)	2 373 (15.0)
Urgency	3 104 (22.4)	5 509 (35.7)	674 (4.9)	1 707 (11.1)
Urgency with fear of leaking	1 975 (14.0)	5 261 (33.3)	546 (3.9)	1 860 (11.8)
Urgency incontinence§	1 315 (9.3)	3 869 (24.4)	639 (4.5)	2 072 (13.1)
Stress incontinence				
(laughing, sneezing, coughing)§	163 (1.2)	5 004 (31.8)	63 (0.4)	2 340 (14.8)
(physical activities)§	183 (1.3)	1 951 (12.3)	85 (0.6)	1 067 (6.7)
Leak for no reason§	196 (1.4)	916 (5.8)	124 (0.9)	617 (3.9)
Nocturnal enuresis§	201 (1.4)	606 (3.8)	116 (0.8)	410 (2.6)
Leak during sexual activity§	36 (0.3)	311 (2.0)	11 (0.1)	106 (0.7)





So...

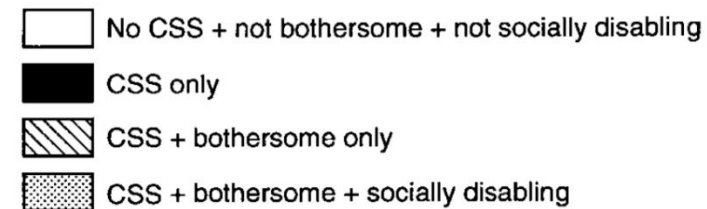
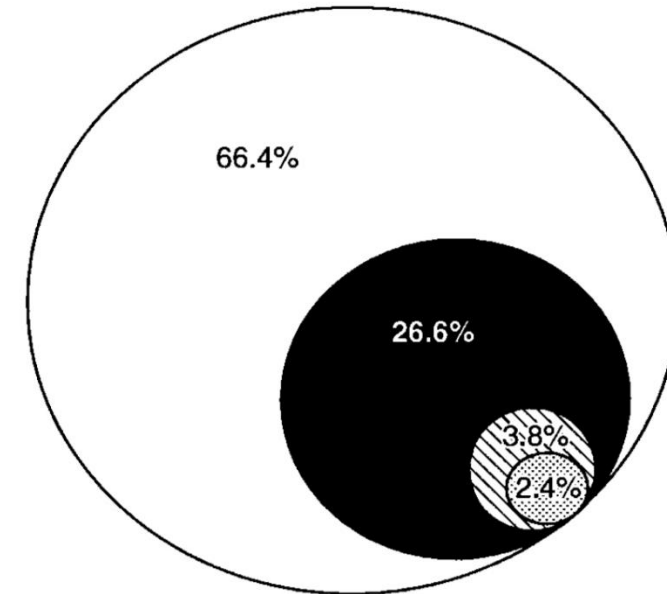
- Very high prevalence of symptoms
- When you ask people if they have them

- But is this a problem to them?



Leicester MRC

- Cross sectional
- Postal Survey
- 15,000 adults over the age of 40
- 34% reported clinically significant symptoms
- Only 2% reported bother





So why the disparity?

- Availability of containment
 - Especially for women
- Belief it's a normal or inevitable part of ageing
- Adjusting to a new normal
- Therapeutic nihilism





Health seeking behaviour

- Fewer than half of people with significant incontinence will seek help
- Embarrassment
- Fear of surgery
- Belief it's normal





In conclusion

- LUTS are common and become more prevalent with age
- The prevalence in surveys is higher than clinic practice
 - Often because we don't ask
- So do!

