

Table II. Selected data of macroscopic dimensions of intestine in subjects undergoing intubation, laparotomy, or X-ray. Data used in our calculations below are in **bold**.

Intestinal segment	Mean length (cm)	Mean diameter (cm)	Method/patient condition	Reference
Duodenum	25–30	4		Textbooks
Nose to pylorus	64		Intubation/no gastro-intestinal dysfunction	[19] ^{c)}
Duodenum	22			
Nose to ileocecal valve	341			
Colon	110			
Jejunum + ileum	♂: 698 (range 500–846) ♀: 616 (range 400–784)		Laparotomy/patients with GI symptoms	[20] ^{c)}
Small intestine	291 (range 160–430)		Double contrast radiography/no jejunal or ileal morphological abnormalities	[21] ^{c)}
Jejunum+ ileum		3		
Proximal jejunum		2.5^{d)}		
Jejunoileal tract		2		
Small intestine	460 (range 285–620)		Laparotomy/abdominal disease	[22] ^{c)}
Large intestine	♂: 126 (SD = 15) ♀: 133 (SD = 16)	♂: 4.1 ♀: 4.0	Double contrast barium enema/abdominal disease	[23] ^{b, c, d)}
Large intestine	114		Laparotomy/abdominal disease	[24] ^{a, c)}
Large intestine	♂: 185 ♀: 193	4.8^{e)}	Computed tomographic colonography/ mainly asymptomatic	[25]

^{a)}Measurements reported from four segments of the large intestine.

^{b)}Measurements reported from six segments of the large intestine.

^{c)}Measured at surgery or with X-rays.

^{d)}Used as mean value for small intestine.

^{e)}Computed from data published by Khashab et al. [25].

^{f)}Japanese population.

- [19] Blankenhorn DH, Hirsch J, Ahrens EH. Transintestinal intubation: technic for measurement of gut length and physiologic sampling at known loci. *Proc Soc Exp Biol Med* 1955; 88:356–62.
- [20] Backman L, Hallberg D. Small-intestinal length – intraoperative study in obesity. *Acta Chir Scand* 1974;140:57–63.
- [21] Fanucci A, Cerro P, Fanucci E. Normal small bowel measurements by enteroclysis. *Scand J Gastroenterol* 1988;23: 574–6.

- [22] Hosseinpour M, Behdad A. Evaluation of small bowel measurement in alive patients. *Surg Radiol Anat* 2008;30: 653–5.
- [23] Sadahiro S, Ohmura T, Yamada Y, Taki Y. Analysis of length and surface area of each segment of the large intestine according to age, sex and physique. *Surg Radiol Anat* 1992; 14:251–7.
- [24] Saunders BP, Phillips RKS, Williams CB. Intraoperative measurement of colonic anatomy and attachments with relevance to colonoscopy. *Br J Surg* 1995;82:1491–3.
- [25] Khashab MA, Pickhardt PJ, Kim DH, Rex DK. Colorectal anatomy in adults at computed tomography colonography: normal distribution and the effect of age, sex, and body mass index. *Endoscopy* 2009;41:674–8.