

**Table 1. Bounds for bacteria number in different organs, derived from bacterial concentrations and volume.**

| Location                                     | Typical concentration of bacteria <sup>(1)</sup><br>(number/mL content) | Volume (mL)                            | Order of magnitude bound<br>for bacteria number |
|--|---|--|---|
| Colon (large intestine)                      | $10^{11}$   | 400 <sup>(2)</sup>                     | $10^{14}$                                       |
| Dental plaque                                | $10^{11}$   | <10                                    | $10^{12}$                                       |
| Ileum (lower small intestine)                | $10^8$  | 400 <sup>(5)</sup>                     | $10^{11}$                                       |
| Saliva                                       | $10^9$  | <100                                   | $10^{11}$                                       |
| Skin   | < $10^{11}$ per m <sup>2</sup> <sup>(3)</sup>                           | 1.8 m <sup>2</sup> <sup>(4)</sup>      | $10^{11}$                                       |
| Stomach                                      | $10^3$ – $10^4$   | 250 <sup>(5)</sup> –900 <sup>(6)</sup> | $10^7$  |
| Duodenum and Jejunum (upper small intestine) | $10^3$ – $10^4$   | 400 <sup>(5)</sup>                     | $10^7$  |

<sup>(1)</sup> Except for skin, concentrations are according to [9]. For the skin, we used bacterial areal density and total skin surface to reach an upper bound.

<sup>(2)</sup> See derivation in section below.

<sup>(3)</sup> Skin surface bacteria density is taken from [11].

<sup>(4)</sup> Skin area calculated as inferred from standard formula by DuBois for the body surface area [12].

<sup>(5)</sup> Volume of the organs of the gastrointestinal tract is derived from weights taken from [13] by assuming content density of 1.04 g/mL [6].

<sup>(6)</sup> Higher value is given in [14].

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