

## Colonization of the rectum by *Lactobacillus* species and decreased risk of bacterial vaginosis

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### Abstract

Lactobacilli colonizing the rectum may be a reservoir for vaginal lactobacilli. In a cross-sectional study of 531 females, vaginal and rectal colonization by lactobacilli were assessed by culture methods. A subset of isolates was identified to the species level by use of whole-chromosomal DNA probes. *Lactobacillus crispatus* (16%), *L. jensenii* (10%), and *L. gasseri* (10%) were the prevalent lactobacilli colonizing the rectums of 290 females. Only 13 (9%) of 147 females colonized by *L. crispatus* or *L. jensenii* vaginally and/or rectally had bacterial vaginosis (BV), compared with 12 (44%) of 27 females colonized by other H<sub>2</sub>O<sub>2</sub>-producing lactobacilli ( $P < .001$ ). Cocolonization of the vagina and rectum by H<sub>2</sub>O<sub>2</sub>-producing lactobacilli was associated with the lowest prevalence of BV (5%), whereas females colonized only vaginally, only rectally, or at neither site had a successively increased risk of BV ( $P < .001$ ). *Lactobacillus* species in the rectum may contribute to the maintenance of vaginal microflora.