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The effect of change in type of intestinal bacteria on urinary indican and phenols.

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Experiments were carried out on seven individuals to determine the effect on urinary indican and phenols brought about by change from essentially putrefactive to aciduric type of intestinal flora. In the experimental period one quart of a skim milk culture of *B. acidophilus* containing 100 grams lactose was added to the ordinary diet. Total nitrogen, indican, free and combined phenols were determined in the urine and the bacterial count was made on the feces.

Two of the subjects failed to react to change of flora under the treatment. Three others showed a tendency toward decrease in urinary indican and combined phenols when *B. acidophilus* attained a concentration of 90-100 per cent. in the feces. The remaining two showed increased indican and phenol excretion when the milk culture was added to the diet although the concentration of *B. acidophilus* in the feces was at least 90 per cent.

These data suggest that, when *B. acidophilus* is given in milk culture, in some subjects the increased amount of available tryptophane more than balances the decrease in numbers of indol-producing organisms with the result, that increased ethereal sulfate output may accompany a preponderatingly aciduric intestinal flora. It is likewise indicated that the favorable clinical results obtained with milk cultures of *B. acidophilus* in gastrointestinal cases do not depend primarily on decreased production of indican and ethereal sulfates.¹

¹ Part of the bacteriological examinations was made by Dr. H. A. Cheplin.