Safety of Vitamin and Mineral Supplements for Mother and Child, 24 September 1986, in Innsbruck

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Dr. Olson’s statements, especially on those concerning the side effects attributed to vitamin C, require comment, since some are based on unverified, even anecdotal, reports.

VITAMIN C ACIDIFIES URINE TO pH 4

Not a single controlled study exists to demonstrate this. There are, however, many published studies showing that there is no, or only a limited, effect of ascorbic acid on urinary pH. In addition, it was shown that ascorbic acid has an effect in normalizing the pH of urine in cases where urine is alkaline due to bacterial overgrowth.

VITAMIN C AND DIARRHEA

Diarrhea must be considered as a severe pathological and often life-threatening condition. In the case of ascorbic acid, however, one may speak only of a laxative effect or of increased bowel movements. On discontinuing intake this effect rapidly disappears. The term diarrhea should thus be avoided in this context.

VITAMIN C AND OXALATE STONE FORMATION

It has been shown that ascorbic acid contributes to oxalate formation, but this is limited to a maximum of approximately 80 to 100 mg/day. This was shown in very sophisticated studies on the kinetics of ascorbic acid in man
carried out with radioactively labeled ascorbic acid. These figures were also confirmed by many controlled studies on long-term intake of large oral doses. There is not a single case reported in the literature demonstrating clinically that ascorbic acid causes kidney stones. Evidence therefore strongly favors the view that vitamin C constitutes no problem with regard to oxalate stone formation. The only group at risk are patients with hyperoxaluria, who should not take large amounts of the vitamin.

VITAMIN C AND REBOUND EFFECT

Our group recently concluded a controlled study on the effect of 5 g ascorbic acid daily on the possible appearance of rebound scurvy. This study was undertaken in cooperation with Professor Kallner, Karolinska Hospital in Stockholm. The results (as yet unpublished) indicate no such effect on the basis of plasma, leukocyte, or urine ascorbic acid concentrations.