What goes in must come out - the small intestine modulates renal phosphate excretion

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Abstract

In a recent article in PNAS, Berndt et al. describe a novel and rapid regulation of renal phosphate excretion by phosphate instilled into the small intestine [1]. In a series of elegant experiments, renal phosphate clearance was measured before and during the infusion of a small amount of phosphate into the distal duodenum of rats. Twenty minutes after the infusion, massive phosphaturia was observed. This effect was specific for phosphate and was not seen when phosphate was instilled into the stomach or when NaCl was applied. Phosphaturia occurred without a measurable increase in serum phosphate and . . .
Serum Pi

FGF-23
sFRP4

1,25 (OH)₂-Vit. D₃

"intestinal phosphaturic factor"