Insoluble Dietary Fibers: The Major Modulator for the Viscosity and Flow Behavior of Digesta

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Summary
Insoluble dietary fibers had been believed to have no effect on digestion and absorption except for dilution and adsorption. However, we found that ingestion of insoluble dietary fibers should elevate the viscosity of digesta and retard the digestion and absorption of nutrients via depressed diffusion and mixing in the intestinal lumen. In this regard, the role of insoluble dietary fibers should be reevaluated.