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## **Effects of Sugars and Aspartame on the Uptake and Transport of Iron by Caco-2 Cells Cultured in Serum-Free Medium**

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To evaluate the influence of sugars (glucose, fructose, lactose) and the uptake and transport of iron, we investigated iron uptake by mono- and the transport of iron from the apical to the basal chamber when grown on polycarbonate membrane inserts in serum-free medium (transferrin and selenious acid). Iron uptake in fructose and glucose was significantly higher than in lactose and the control groups ( $p < 0.05$ ). When the concentration of glucose was increased from 2  $\mu\text{M}$  to 20  $\mu\text{M}$ , the uptake and transport significantly increased. Aspartame 2  $\mu\text{M}$  increased the iron uptake

**Keywords:** [serum-free medium](#), [Caco-2 cells](#), [aspartame](#), [fructose](#)

[uptake](#), [iron transport](#)

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