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The effects of acid on bone.

Bushinsky DA, Frick KK.

Metabolic acidosis induces calcium efflux from bone and in the process buffers the additional hydrogen ions. Initially metabolic acidosis stimulates physicochemical mineral dissolution and then cell-mediated bone resorption. Acidosis increases activity of the bone resorbing cells, the osteoclasts, and decreases activity of the bone forming cells, the osteoblasts. Osteoblastic immediate early response genes are inhibited as are genes controlling matrix formation.