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**COIN BATTERY MODIFICATION TO PREVENT
GASTROINTESTINAL INJURY FROM CURRENT FLOW**

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M Baum Eli, R Baum Carl. *Yale University School of Medicine, 100 York Street, Suite 1F, New Haven, Connecticut 06511, USA*

Background The US Consumer Product Safety Commission warns that battery-related injuries are increasing as small button or coin batteries become more prevalent in households. Since 1985, severe injuries and fatalities from these batteries have increased sevenfold. Young children and senior adults can swallow batteries, which may become lodged in the oesophagus, allowing electrical current to cause burns and haemorrhage.

Objectives We propose a modification of a standard coin battery to prevent current flow once removed from the battery compartment of a device.

Methods A modification of a standard coin battery allows current flow only when the battery compartment depresses a spring-loaded interlock mechanism on the surface of the battery. Once depressed, this mechanism connects the external shell to the sealed internal electrode. When the battery is removed from the compartment, the springloaded mechanism returns to its normal state and disconnects the electrode from the external shell.

Significance/Contribution to the Field We believe that a modification of standard coin battery design would eliminate current flow outside of the battery compartment, and therefore would limit gastrointestinal injury if swallowed and lodged in the oesophagus.