Abstract: Research has shown that health interventions that build wisely upon existing conceptual knowledge can be effective in producing conceptual and behavioral change. Pre-school aged children have been found to understand the relationship between food and the body principally in terms of their lay mechanical theories. A conceptual intervention is designed to build upon this emerging understanding in order to teach nutritional balance and variety. Special attention is paid to the role of linguistic framing in building coherently upon children’s existing mechanical knowledge. In particular, framing inert, inactive food as a causal agent in sentences such as milk gives you strong bones may be especially opaque given children’s mechanical understanding of nutrition, compared with framing the body as the causal agent, e.g., your bones use milk to grow strong. Results indicate that children given a body-agentively—but not food-agentively—framed intervention achieved greater understanding of nutritional balance and variety.