RELAZIONE ORALE

DISTINCTIVE HOMEOSTATIC BALANCE IN CHILDHOOD OBESITY AND ITS RELATIONSHIP WITH BONE HEALTH

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Childhood obesity is characterized by persistent meta-inflammation that disrupts both metabolic and skeletal homeostasis, potentially leading to long-term health consequences. The interplay between chronic inflammation, impaired insulin signaling, and gut microbiota dysbiosis offers an integrated framework for understanding obesity-related alterations in bone health during childhood.

From a clinical standpoint, these findings emphasize the importance of early recognition and intervention. Approaches aimed at reducing excess adiposity, improving dietary quality and vitamin D status, and supporting gut microbiota balance may enhance skeletal outcomes while also reducing overall cardiometabolic risk.

From a research perspective, a developmental approach in pediatrics highlights the need for longitudinal studies to clarify the causal relationships between obesity, inflammation, metabolic dysfunction, and bone health. Investigating these early mechanisms may help identify novel preventive and therapeutic targets, ultimately contributing to a reduction in the long-term burden of obesity-related complications.