

Macronutrient deficiency in Indian children

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DESCRIPTION

Macronutrient deficiency remains a significant public health concern among Indian children, particularly in rural and economically disadvantaged regions. Macronutrient's carbohydrates, proteins, and fats are essential for growth, development, and overall health. Inadequate intake or poor absorption of these nutrients can lead to undernutrition, stunting, wasting, and increased vulnerability to infections. According to recent National Family Health Surveys (NFHS), a considerable percentage of Indian children less than five years suffer from underweight (32.1%), stunting (35.5%), and wasting (19.3%). Factors contributing to macronutrient deficiencies include poverty, food insecurity, and lack of maternal education, poor infant feeding practices, and inadequate public health interventions. Protein-energy malnutrition (PEM) is the most common manifestation, with conditions like marasmus and kwashiorkor still prevalent in some parts. Addressing this issue requires a multi-sectoral approach involving nutrition education, improved maternal and child healthcare, fortified supplementary nutrition programs, and community-based interventions. Promoting awareness among caregivers, strengthening school-based feeding schemes, and encouraging local food production can also help bridge the nutritional gap. Urgent and sustained efforts are crucial to combat macronutrient deficiency in children.

CONCLUSION

In conclusion, macronutrient deficiency among children remains a pressing public health concern with significant implications for both individual well-being and societal development. A lack of adequate intake of essential macronutrients proteins, carbohydrates, and fats can severely impair a child's physical growth, weaken their immune system,

and contribute to developmental and cognitive delays. These effects are not only immediate but can extend into adulthood, reducing the individual's potential and increasing the burden on healthcare systems. The consequences of chronic macronutrient deficiency are often irreversible, particularly when they occur during the critical periods of early childhood. Children who suffer from poor nutrition are at greater risk of falling behind in school, experiencing repeated illnesses, and failing to reach their full developmental potential. This, in turn, perpetuates cycles of poverty and poor health across generations. Addressing this issue demands a comprehensive and multi-pronged strategy. Improving food security must be a top priority, particularly in low-income and vulnerable communities. Policymakers, healthcare professionals, and community organizations must collaborate to ensure that every child has access to a nutritionally adequate diet. This includes the availability of affordable, nutrient-rich foods and the implementation of school meal programs that provide balanced nutrition. Equally important is promoting awareness and education around nutrition. Parents, caregivers, and community leaders need to be informed about the importance of balanced diets and the consequences of macronutrient deficiencies. Culturally sensitive nutritional education programs can empower families to make healthier food choices, even within limited means. Early detection and timely intervention are critical. Routine screenings, growth monitoring, and community-based health check-ups can help identify children at risk of malnutrition before severe complications arise. Once identified, interventions should be prompt and sustained, incorporating dietary supplements, therapeutic foods, and continued support to prevent recurrence. Ultimately, tackling macronutrient deficiency in children is not just a health issue it is a moral, social, and economic imperative. By investing in child nutrition today, we lay the foundation for a healthier, more productive, and equitable future for all.

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