

Severe thiamine deficiency causes beriberi, which is a disorder typically associated with a diet consisting largely of polished rice. It may also occur when refined wheat flour forms a major part of the diet and among alcoholics and food faddists. Thiamine deficiency can develop within 2-3 months of inadequate consumption; it is characterized either by cardiac involvement with oedema or by peripheral neuropathy, with intermediate forms between these two extremes also occurring. Left untreated, thiamine deficiency leads to disability and death. In the past decade, several refugee populations that were wholly dependent on food aid have developed thiamine deficiency.

This document is intended primarily as a basis for ensuring adequate thiamine intake among populations in emergency settings. It reviews strategies for preventing thiamine deficiency among refugees and analyses factors influencing success and failure. Also included are a review of the literature on the epidemiology of thiamine deficiency and its signs and symptoms; thiamine's properties and functions and the recommended daily allowance; and a discussion of food sources of this vitamin and its stability.

Thiamine deficiency and its prevention and control in major emergencies is the second in an occasional WHO series on the prevention and control of micronutrient deficiencies during emergencies. Reviews concerning scurvy and pellagra are also available.