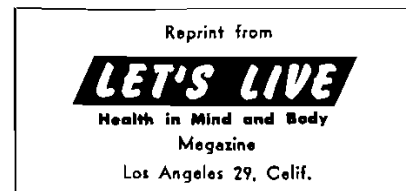


# Cost of Malnutrition

by Royal Lee, D.D.S.

President, Lee Foundation for Nutritional Research, Milwaukee, Wisconsin  
© 1959 GODFREY THOMAS PUBLISHING CO. ALL RIGHTS RESERVED.



Modern industrial efforts (mass production) demand that the skilled worker be present in his proper place and provided with the special materials to do his job. One small part, or a worker, absent, may jam the whole production line, and thousands of persons are idle until the wrong has been mended. The industrialist understands this and provides every possible means to avoid costly interruption. Why, then, is this same carefully trained personnel so negligent in providing the raw materials that the human mechanism needs to do its job?



Millions of work hours are lost every year by inefficient human care which endeavors to enforce the false philosophy of "Trying to make something out of nothing." Of course everybody "knows" this, but as Mark Twain once said about the weather, "Everybody talks about it, but nobody *does* anything about it." The cost accounting and efficiency expert could well add another column to his scrupulously kept set of books, entitled, *The Cost of Malnutrition*. If he did, how would he explain this entry to the boss? He might begin by explaining the functions of vitamins.

## Why we need vitamins

"Well, sir," our efficiency expert might say, "people who buy foods, minerals, and vitamins, not knowing their function, will be offered cheap imitations that in the end prove costly to us, both in health and life, yes, even you and me! Now we are ready to consider these functions in detail.

## Vitamin A complex

"Why do we need vitamin A complex? It keeps our eyesight acute and prevents eye fatigue, night blindness

and eye ulcers—causes of many industrial accidents. It is essential for the skin and mucous membrane surfaces of the body and thus helps protect the body against invasion of infective agents—one of our most common causes of lost work hours.

## Vitamin B complex

"Why do we need vitamin B complex? Principally for our nerves. It maintains the normal rhythm of the heart. In a deficiency, irregular heart rhythm may occur. This is a loss of teamwork among the heart muscle areas, where, instead of all contracting together, part contracts while another part relaxes. This is, of course, very inefficient.

## Vitamin C complex

"Why do we need vitamin C complex? First, in vitamin C deficiency the blood capacity to carry oxygen may drop to half normal. This means that the heart is compelled to pump blood at twice the normal rate, so that one of the first reactions to vitamin C complex deficiency is shortness of breath. In time this overload on the heart contributes to its ultimate breakdown. Meanwhile, the deficient worker feels constantly tired, lacks both mental and physical stamina—not a very good man to have on the payroll.

## Vitamin D complex

"Vitamin D complex stimulates the absorption of calcium into the blood stream. Without this vitamin, irritability, cramps, (including our heavy losses from cramps of our female absentees monthly), breaking of bones easily and other calcium problems occur. The insomnia of our workers, which happens at home, so we never see it, may be one of these.

## Vitamin E complex

"Why do we need vitamin E complex? We lose vitamin E so very slowly that many years on a poor diet may be necessary to bring it out. Heart dis-

ease is probably the commonest end result. Another interesting reaction to local E deficiency is some forms of eczema. One type known as petroleum dermatitis, because it arises from contact daily with petroleum solvents, often in workers who handle oil saturated mechanical parts, is due to the removal by this oil of the fat soluble vitamin E from the skin. The skin refuses to regenerate itself, cannot heal, and becomes progressively degenerated, cracked and raw. Dermatitis states that are worse in winter are usually of this category.

## Vitamin G complex

"Why do we need vitamin G complex? First, to protect the heart. It also serves as a natural, physiological tranquilizer since it acts to dilate the blood vessels and so improves the circulation to most organs, including the heart. Muscle and nerve tone are not possible without vitamin G complex and, although the effects of its lack may not be evident by average observation, doctors know that this is one of the most widespread of all deficiency states. The vitamin G supplied worker is certainly better equipped to do his job.

"Why do we need trace minerals? Well, low back pain is one good reason. This pain often arises from a deficiency of trace minerals needed for the enzyme activity necessary for the formation and repair of ligaments, tendons and bones. That sir, was why I added the column entitled *Cost of Malnutrition* to our ledger," the efficiency expert concluded.

THE END