



THE STORY OF
IRRADIATED VITAMIN 'D' MILK

We again **KEEP OUR PLEDGE**

By the very nature of our function as your milk dealer we are the keeper of a sacred trust.

Because milk is the very foundation of the diet, we realize that ours is the responsibility of safeguarding and nourishing every member of your family by furnishing products of utmost purity, wholesomeness and nutritive value.

We have pledged ourselves constantly to improve the beneficial qualities of our milk—not merely by exercising more rigid control and selection of farm sources, but by applying new plant methods for safeguarding the purity and wholesomeness of milk.

In adopting direct irradiation of milk for Vitamin D enrichment, we have again kept this pledge by making available to you the most important nutritional discovery in the dairy field since the introduction of pasteurization.

• Irradiated Vitamin D Milk is milk of standard grade in which the Vitamin D content has been increased by exposure to ultra-violet light.

The story behind this revolutionary development concerns the nutritional improvement of nearly every civilized being. You and your family are no exception, though they may appear to be. The vital need for more Vitamin D is one of the most important and dramatic discoveries of this age.

You will find the story intensely interesting.

EVERY housewife, especially every mother, should know the vitamins and realize that unless they are present in the diet constantly, in adequate amounts, her family's health will suffer.

Fortunately you do not have to worry so much about Vitamins A, B, C, E and G. They can be supplied plentifully by a proper selection of the diet. But not so with Vitamin D! No foods contain enough Vitamin D for our needs, even were we to eat many times as much as our systems could tolerate. Egg yolk is the richest. A few kinds of fish contain some. Butter and ordinary milk have a small amount, but winter-produced dairy products are low in it.

Practically none of the cereals naturally contains more than a trace of Vitamin D. Fruits, vegetables and all other foods are practically devoid of it.

WHAT IS VITAMIN D? • You will realize the seriousness of this lack when you understand the extremely important function of Vitamin D. It must be present in sufficient quantity before the body can make proper use of calcium and phosphorus, the minerals needed in the development of the bones and teeth.

Vitamin D can be compared to the cement in a brick wall. Without the cement the bricks are not bound into a firm structure. Similarly, without sufficient Vitamin D, the essential minerals in our foods, calcium and phosphorus, are inefficiently used and do not form firm bone and tooth structure.

Vitamin D is developed naturally in the body by sunshine—that is, of course, sunshine from which the ultra-violet has not been filtered. Sunshine, as you know, is made up of many different kinds of rays. Some we feel as radiant heat. Some are light waves of all colors. The ray that creates Vitamin D is a light energy wave just beyond the limit of our eyesight—invisible ultra-violet.

But, unfortunately, most sunshine, and especially most of the ultra-violet, is kept from us. We live too far north, for one reason. During seven or eight months of fall and winter, the sun remains too low in the southern sky, and ultra-violet waves, like the sun's heat waves, are then less intense. Even in summer these rays are shut out by clouds and by the smoke, soot, dust and shade of city life. Clothing, building walls and even window glass completely absorb this source of Vitamin D.

Like these toy blocks, bone-building calcium and phosphorus are merely loose building materials, until cemented into a strong, unified structure. In our bodies, Vitamin D functions like this cement.





We cannot enjoy summer sunshine like this daily the year around . . .

LACK OF VITAMIN D CAUSE OF RICKETS • This universal lack of Vitamin D has many serious consequences. It is the direct cause of the scourge of rickets, the common nutritional disease of the first year of life. Rickets is faulty development and imperfect hardening of the bone structure.

In mild rickets there may be no outward evidence of deficiency. Your child may have it without your knowing it. Many a mother has learned of this condition only when the alert doctor has used the X-ray, or other means of detection to prove his suspicions. In acute form it may result in bow-legs, knock knees, "pot belly," bulging forehead, "chicken breast," softening of cranial bones, enlarged joints and other deformities, as well as weak, crooked teeth, muscular weakness and nervous instability. Every mother should know these signs.

Rickets is not rare, and mild rickets is widely prevalent. During the winter of 1930-31 fully *one-half* of the white infants and approximately *three-fourths* of the negro infants who came to the health clinics in New York City showed definite signs of rickets, according to the report of Dr. A. F. Hess and associates, in the *Journal of the American Medical Association*, August 8, 1931. Other reports show that this percentage is little less alarming in smaller towns and cities and that rickets is found in the families of rich and poor.



But we now can get our Vitamin D in an equally pleasant way—by drinking Irradiated Milk.

VITAMIN D AND TEETH • Insufficiency of Vitamin D is one of a number of contributing causes of tooth decay.

The best protection you can give your teeth is proper nourishment and hygiene. Vitamin D is one of the important food essentials for good nutrition of the teeth. This vitamin is especially needed early in life. Babies, as you know, start growing their first teeth and even their so-called permanent teeth before they are born. Sufficient Vitamin D, calcium and phosphorus are vitally important in the diet of the mother and, later, of the baby, and will help the infant grow well formed and sturdy teeth.

SERIOUS NEED DURING MOTHERHOOD • Vitamin D is particularly needed by mothers during the pre-natal and nursing period. In meeting the double demand for calcium and phosphorus, she supplies these to her child, drawing upon her own bones and teeth if there is not enough Vitamin D in her diet. The old saying, "A tooth for every child," owes its origin to the commonness of this occurrence.

A serious aftermath of early Vitamin D deficiency is a contracted or narrow pelvis in the baby girl, which if not corrected during the growing years means peril later when she becomes a mother.

THE SEVERAL SOURCES OF VITAMIN D

● During the summer months we should, of course, be out in the open as much as possible. Especially should this exposure be made where the air is free from smoke and dust. This will temporarily lessen our deficiency.

There are several good medicinal sources of Vitamin D, such as cod liver oil, halibut liver oil, and viosterol. The "sun lamp" generates ultra-violet light artificially. While these sources have been excellent, none to date has been so universally adopted that elimination of rickets has resulted.

NOW COMES IRRADIATED MILK

● Now science has given us a suitable, automatic way to secure Vitamin D—through irradiation of the milk. Irradiated Milk is just the standard grade of milk which has been enriched with Vitamin D by brief exposure to ultra-violet light in the bottling plant.

Of all foods, milk is the most ideal carrier of this vitamin because it contains a rich supply of calcium and phosphorus, the minerals with which Vitamin D does its "cementing" work. This fact, together with the ease with which the milk dealer can irradiate his entire volume, has led many medical authorities to regard milk irradiation as one of the great nutritional discoveries of recent years.

IRRADIATED MILK PREVENTS RICKETS ● Tests by numerous nationally known clinicians and scientists prove that Irradiated Vitamin D Milk definitely prevents rickets. A baby or child drinking a quart or even less of properly Irradiated Milk every day is automatically protected.

Irradiated Milk now has the backing of several years of clinical observations, both in hospitals and in private practice. Even before clinical tests on babies were made, the benefits of irradiation to human beings were definitely predictable through thousands of tests on animals.

Every parent should know, for example, of the thrilling results obtained by Dr. A. F. Hess, Dr. J. M. Mitchell and other famous medical authorities in a laboratory experiment with over 100 infants from baby health clinics of the New York City Health Department. These children were fed Vitamin D Irradiated Milk. All but one, which was prematurely born, remained free from rickets. (Rickets cannot be entirely prevented in premature babies.)

WHO SHOULD USE IRRADIATED MILK?

● Infants and children need a generous, steady supply of Irradiated Vitamin D Milk in the diet. This milk may be given from birth onward, where artificial feeding is necessary, or as a supplement to breast feeding. Or the physician may prescribe breast milk only for a period, depending of course on individual circumstances.

Children have a special need for it through the entire growing period. This safeguard is the surest means of giving your children their birthright of sturdy bones, straight limbs, sound teeth, and a full chest development needed for full lung expansion.

Supplying it in girlhood when the bony frame is developing is a necessary step in preparing your daughter for normal, easy motherhood.

Older children need it to prevent late rickets, which is by no means unusual.

Mothers have double need for Irradiated Milk. Its addition to the prenatal and nursing diet helps protect the mother and insure proper development of the child.

A quart of Irradiated Vitamin D Milk a day will provide practically all the calcium, phosphorus and Vitamin D needs for children and adults throughout life. Irradiated Milk, hence, is for all people—for the whole family.

FURTHER FACTS YOU SHOULD KNOW ● Irradiation has no effect whatever on the flavor, taste, or appearance of milk and it increases the food value. Cooking does not destroy Vitamin D.



Think what this significant statement means to this baby—and to yours. "Irradiated Milk seems to be the most desirable means of preventing rickets on a community scale. Only 20 to 24 ounces (2½ to 3 glasses) daily is needed to assure protection."—Dr. A. F. Hess.

The Irradiation process is controlled by the Wisconsin Alumni Research Foundation, a scientific organization through which Dr. Steenbock, the discoverer, has chosen to give his findings to the world. All milk dealers using the Steenbock process must first be licensed by the Foundation, and the product of all licensed dealers is continually subjected to frequent laboratory tests to check the uniformity and potency of the Vitamin D content.

The Foundation will be glad to supply any desired information to members of the medical and dental professions, public health officials, school executives, social workers, milk dealers and others identified with the dairy industry, as well as to people interested in this milk for themselves and their families.



Our Irradiated Vitamin D Milk and the advertising claims for it have been accepted by the American Medical Association, Committee on Foods.



The process of direct irradiation of milk by ultraviolet light is controlled by the Wisconsin Alumni Research Foundation, under the Steenbock patent (U. S. Patent No. 1680818).

