

SUNLIGHT  
*for*  
BABIES



U. S. DEPARTMENT OF LABOR  
CHILDREN'S BUREAU  
FOLDER NO. 5  
1931

359  
C.2

14-2341

## SUNLIGHT, HEALTH, AND GROWTH

The sun that tans the child's skin helps him to grow normally. It gives his body the power



*The first warm day in early spring*

to use food so as to help build straight bones, strong muscles, and well-formed teeth.

A child needs the sun most when he is growing fastest—in babyhood and early childhood. He also needs the so-called "bottled sunshine," cod-liver oil. If the baby does not get enough sun and cod-liver oil, he may develop rickets; that is, his bones will not develop normally. His muscles will be flabby, and his skin will be pale. He may also be slow in teething and in learning to walk.

If the sun's rays are to help the baby grow properly and to prevent rickets, they must fall directly on the skin and tan it. The rays that tan the skin and prevent rickets—the ultra-violet rays—do not pass through clothing nor through ordinary window glass.

Every mother who wishes her baby to have robust health should give him regular sun baths from early infancy until he is old enough to play in the sun himself. Sun baths may begin when the baby is 3 or 4 weeks old—in warm weather outdoors, in cold weather indoors at an open window.

### ***Begin Sun Baths Early***

## GIVE THE BABY A COAT OF TAN

The baby should get tanned all over, but the tanning should take place gradually. Care should be taken not to burn him. Some babies tan more quickly than others; some burn more easily.

Dark-skinned babies need more sun to tan them and to protect them from rickets than fair-skinned babies.

In warm weather sun baths should be given



*Give the baby a coat of summer tan*

when the sun is not too hot—in the morning and late afternoon; in cold weather they should be given when the sun is warmest and the ultra-violet rays most intense—in the middle of the day.

A baby's eyes will not be hurt by the sun unless they are turned directly toward it and are open. During the first month of life turn the baby's head so that first one cheek and then the other is turned toward the sun and the eyes turned away from it. After this, if he lies with his feet pointing away from the sun and his head slightly raised, the shadow of his forehead, eyebrows, and eyelids will shield his eyes.

### **SUNSHINE FOR OLDER CHILDREN**

Now that so many children wear sun suits when the weather is warm, it is easy for them to get tanned. Older children, as well as babies, need plenty of sunlight.

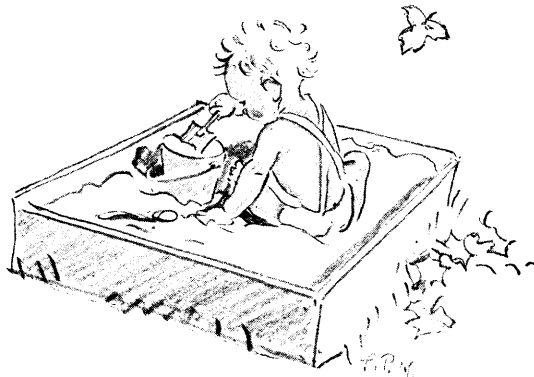
### ***Get Children Used to Sunlight***

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## SPRING AND SUMMER SUN BATHS

*Spring.*—A baby born in the spring may begin sun baths by the middle of March or the first of April in a large part of the United States—in the South even earlier. For his first outdoor sun bath let the sun shine on his face and hands for 10 to 15 minutes, with his cap pushed back or taken off. Each day lengthen the time—by 3 minutes for a fair baby and by 5 minutes for a dark baby. After the face and hands are used to exposure, roll up the sleeves. Soon the stockings may be taken off; then the dress, shirt, and band. After a month or two the baby should be getting half an hour of sun in the morning and half an hour in the afternoon, wearing only a diaper. Spring sun baths are best given in the late morning and early afternoon.

*Summer.*—A baby who has his first sun bath in warm weather may have all his clothes taken



*By fall the baby should be well tanned*

off except the diaper. Let the sun shine on him for 10 minutes—5 minutes on the front and 5 minutes on the back. If the weather is very warm, a 2-minute sun bath is long enough at first. Lengthen the sun bath each day by 3 or 5 minutes. In very warm weather a 1-minute increase a day is enough.

The sun bath may be lengthened gradually to three-fourths of an hour, and many babies, especially those over 4 months, may have an hour's sun once or even twice a day. Summer sun baths are best given between 8 and 11 a. m. and after 3 p. m., when the sun is not too hot.

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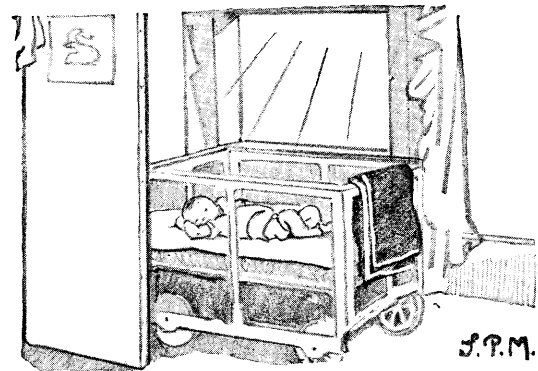
## FALL AND WINTER SUN BATHS

Longer sun baths are needed in fall and winter than in spring and summer, because in fall and winter the ultra-violet rays are weak. In cold weather a sun bath can be given indoors near a window opened at top or bottom, the baby lying in the patch of sunlight coming through the open space. By holding her own hands in the sun the mother can tell how warm it actually is. The room should be heated and the doors closed to prevent drafts. Watch the baby carefully and cover him if the sun goes behind a cloud.

At the first indoor sun bath let the sun shine on the baby's face, hands, and arms for 15 to 20 minutes; after a few days uncover his legs also. Lengthen the sun bath gradually until it lasts 1 to 2 hours. When the sun is warm enough, even the baby's shirt may be taken off. In the coldest weather it may be better to give two short sun baths a day instead of one long one.

After a baby is used to indoor sun baths, he can begin outdoor ones very early in the spring.

On many sunny days in fall and winter the baby should be put outdoors in the middle of the day for a long sunning on face and hands.



*Winter sun bath at an open window*

In the sun the thermometer may register 40 to 50 degrees higher than in the shade, and if the baby is protected from the wind the sun will help to keep him warm.

***Baby Needs Sunlight All the Year***

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## WHAT IS RICKETS?

Rickets is a disease very common in infancy and early childhood. It affects the whole body, but most strikingly the bones, which may become greatly deformed, and the muscles, which may become weak and flabby. It is caused by lack of sunlight and of a special substance found in some foods, called vitamin D. The food that contains the most vitamin D is cod-liver oil. A few other foods contain some vitamin D, but not enough to depend upon for the prevention of rickets. Milk, although an essential food for infants and children, contains too little vitamin D to protect them from rickets. Vitamin D is present in viosterol (a medicine made by treating a substance called ergosterol with ultra-violet light) and in certain foods that have been so treated. Viosterol or irradiated foods should not be used unless ordered by a physician.

Artificially-fed babies are more likely to develop rickets than breast-fed babies, but breast feeding does not prevent it. If a nursing mother gets plenty of sunshine her milk will help to protect the baby from rickets, but he needs sunshine and cod-liver oil also.

A rapidly growing baby is more likely to develop rickets than a baby who is growing more slowly. A premature baby is especially likely to develop rickets, as he grows faster during the early months of life than a full-term, normal baby.

In general it is the children that get the most sun who do not develop rickets. Rickets is seldom found in hot climates, where the ultra-violet rays in the sun are strong and where most children are outdoors in the sun throughout the year and wear few clothes. It is common in temperate climates, where the ultra-violet rays are weaker, where cold weather keeps children indoors a great deal, and where more clothing is worn. It is especially common in large cities, where people are crowded and where smoke and dust cut off the ultra-violet rays of the sun.

### *Rickets Can Be Prevented*

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## RICKETS BEGINS IN YOUNG BABIES

A baby may have rickets long before his mother notices anything wrong with him—long before his legs become badly bowed or before other deformities of the bones appear—for the disease may start early in infancy and develop slowly. Plenty of sunlight and cod-liver oil at this early stage will save him from developing severe rickets and from such results as bone deformities and poor teeth.

If a child's chest bones are greatly deformed by severe rickets, the deformity may prevent his lungs from expanding properly and he may be more subject to lung infections such as bronchitis and pneumonia. Besides, a child who has rickets is not able to throw off infections as a normal child does. Thus, although rickets itself does not cause death, it may have complications that do. A severe complication of rickets is a disease called tetany, from which the child may die.

Narrowing of the pelvic bones is an unfortunate result of rickets, especially in girl babies, for after the little girl grows up it may be found that this deformity makes normal child-bearing difficult or even impossible.

Since rickets most often begins in babies in the first months of life, measures to prevent it should be begun very early. So many babies have rickets before anyone knows it that every baby should be given sun baths and cod-liver oil to protect him from this disease. It is easier to prevent rickets than to cure it.

### *Give Sun Baths and Cod-Liver Oil Daily*

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## COD-LIVER OIL IS "BOTTLED SUNSHINE"

In the temperate zones cod-liver oil as well as sunlight is needed to prevent rickets. Even though a baby is born in the spring and receives sun baths throughout his first summer, he should also be given cod-liver oil. A winter baby can not get enough outdoor sunshine, so he especially needs cod-liver oil. It should be given to every baby throughout the first two years of life, beginning at 2 weeks of age, whether he is breast fed or artificially fed.

### DAILY AMOUNTS OF COD-LIVER OIL

Third and fourth weeks,  $\frac{1}{2}$  teaspoonful twice a day.

Second month, 1 teaspoonful twice a day.

Third month,  $1\frac{1}{2}$  teaspoonfuls twice a day.

Fourth month to end of second year. 2 teaspoonfuls twice a day.

### HOW TO GIVE COD-LIVER OIL TO BABY

With the baby on your lap, pour the cod-liver oil into a spoon held in your right hand. With your left hand open the baby's mouth by pressing his cheeks together between your thumb and fingers. Pour the oil little by little into his mouth. If his mouth is not held open until the oil is entirely swallowed, he will spit out what is left in his mouth. Cod-liver oil rarely upsets a baby's digestion. Older babies may be given orange juice with the cod-liver oil, or after it. It is best, however, to teach them to take the oil directly, unmixed with anything else.

Most babies and little children learn to like cod-liver oil. The mother must take for granted that the baby will like it, even if she herself does not. If the mother dislikes the smell of the oil, she must not show it in her facial expression. If she does, she may teach the baby to dislike it, too.

### *Sunlight and Cod-Liver Oil Prevent Rickets*

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