

## The English Disease

England can claim the sad distinction that rickets is more widespread there than anywhere else. The disease was described here as early as the seventeenth century, and since then it has been known as the “English disease.” And in the First World War, England used this disease as a weapon against us, as this excerpt from an English newspaper proves. [Excerpt shown on screen in English; the highlighted words are also translated into German: **We tried to make our enemies unwilling that their children should be born**; we tried to bring about such a state of destitution that those children, if born at all, should be born dead; that if they were born living their parents should have nothing to wrap them in but paper and no milk to feed them with; **that if they grew up they should be more or less deformed by rickets; and that if ever these poor little devils reached the school age they should be too physically starved to be able to avoid becoming mentally stunted as well.**]

This distortion of the bones is a consequence of rickets. The X-ray shows how badly deformed the bones are. Plump little arms are not always a sign of health. What we see here is a bone swelling caused by a shortage of Vitamin D. On the right are the diseased arm bones, on the left the healthy ones. Bone formation is essential to the child’s development. The minerals calcium and phosphorus, as well as Vitamin D, indicated here by small triangles, travel through the bloodstream into the area of growth in a bone. Bone growth is promoted by a combination of calcium and phosphorus. Only Vitamin D enables the calcium to combine with the phosphorus to form calcium phosphate. Therefore Vitamin D is absolutely essential to bone formation. Only in this way can bone can grow straight and sturdy. Without Vitamin D, calcium and phosphorus are no longer able to combine. Unused, these materials swim away in the bloodstream. Development is hindered, and the characteristic bone swellings and deformities of rickets appear. Once the growth phase of bone is at an end, rickets is no longer curable. All the doctor can do at this point is help to alleviate the situation.

For a woman, rickets is especially catastrophic. The normal female pelvis has a round pelvic inlet, while a pelvis affected by rickets is flattened into an oval. Comparison of a rachitic pelvis with a pelvis that is normal in shape clearly reveals the deformity. During birth, the head of the fetus turns. A normal pelvis can accommodate this movement. A flattened, rachitic pelvis, however, cannot readily do so. Complications during childbirth are almost always the result.

The first signs of rickets: excessive sweating at the back of the infant's head, and at the next stage there is a softening of the bone at the back of the head. Overall muscle weakness is also a sign of impaired mineral metabolism. Rachitic ossifications of the costochondral joints of the ribcage produce what is known as the "rachitic rosary," or beading of the ribs. A one-year-old who cannot stand, and starts to cry in pain when it tries to stand, is suffering from rickets.

The effort to prevent the English disease, therefore, has to begin in early infancy. The first requirement: The infant must be nursed by the mother as long as possible. Thus a healthy lifestyle is important for the mother. Spending time outdoors is essential in infancy and childhood. The way this mother is going about it is wrong. The head of the infant must be protected from the sun; otherwise, serious damage can result. This way is wrong too, because the infant's head continues to be in the sun. Sunbathing should not be done to excess. The guideline is: head in the shade, body in the sun.

Light, fresh air, and sun, these are the weapons to use against rickets. A diet rich in vitamins is also of great value for the child's healthy development. Plant products, such as lettuce and vegetables, contain a provitamin that can be converted in the body to Vitamin D. Grated raw carrots, spinach, and lettuce are especially important for a young child. The provitamin present in the diet is converted in the skin into active Vitamin D by the effect of the sun. A cross-section of the skin: The blood pushes the precursor of the vitamin, the so-called provitamin, to the surface of the skin. If the rays of the sun strike the provitamin at the skin surface, it is changed into Vitamin D and carried in the bloodstream to every part of the organism.

In the months with low sunlight, the danger of developing rickets is especially great. In winter, the sun alone no longer has the strength to prevent rickets. Therefore the preventive measures of the Office of the Reich Health Leader are introduced all over Germany during this season. Every mother, with her infant, is summoned to a guidance center for mothers, and the infant is examined thoroughly. The examining physician looks, first and foremost, for the symptoms of rickets. To [part of soundtrack missing; probably: prevent the English disease], every mother in the Greater German Reich receives Vitamin D in the form of Vigantol. For infants at greater threat of rickets, such as premature babies and twins, sunlamps can be used as additional therapy. For prevention of rickets, five drops of Vigantol once a day, in a spoonful of baby food or other food. National

Socialist Germany is taking precautions to ensure that the English disease can never become a German disease.