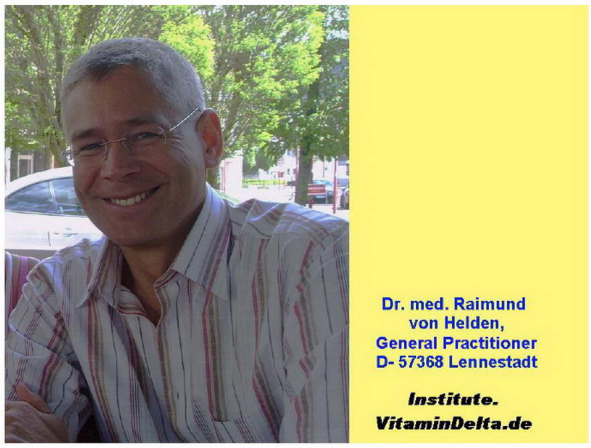


SUPPORT FOR INTAKE OF VITAMIN D DURING PREGNANCY: DEFICIENCY OF VITAMIN D WAS FOUND TO BE TERATOGENOUS IN CHICKEN (Review of Chicken-Experiment from 1967)

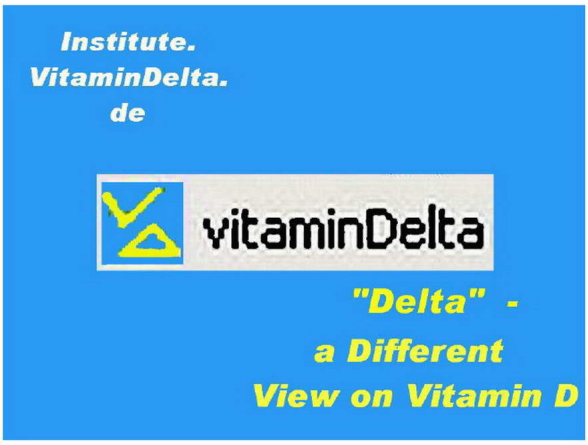
Scientific publication accepted and presented for the

14th-International-Vitamin-D-Workshop-Belgium-2009

in the "Concertgebouw"-Hall of Brugge, Belgium.

from 4 th to 8 th of October 2009 in Brugge "Brügge - Belgien"

Dr. med. Raimund von Helden, General Practitioner VitaminDelta-Institute, D-57368 Lennestadt, Germany



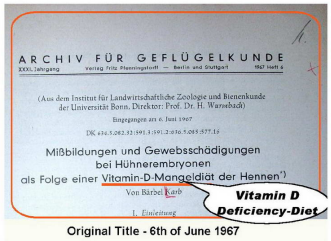
BACKGROUND:

The majority of the German population suffers from a vitamin D-deficiency. Reasons for this are an inadequate nutrition and a lack of sun exposure for an annual period of 6 months. However, pregnant women in particular are afraid that vitamin D might lead to malformations in the unborn child. The well known slogan is: “No tablets during pregnancy!” Up until now it has been difficult to rule out the possibility of malformations because double-blind studies with pregnant women are ethically objectionable. Scientific literature does not provide satisfactory answers to this difficult question either.

METHODS:

In 1967, Bärbel Karb conducted a vitamin D-experiment with 42 chickens in a simplified kind of “crossover design”. (pubmed.gov #5401066), (worldcat.org #4060930). This scientific work was reviewed.

Figure 1: Literature from an Internet-based Antiquariat:
Bärbel Karb, Bonn 1967

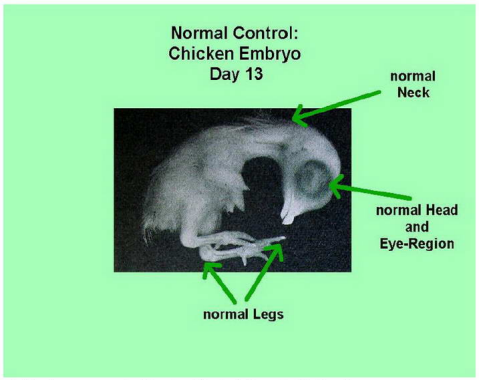


Original Title - 6th of June 1967

RESULTS:

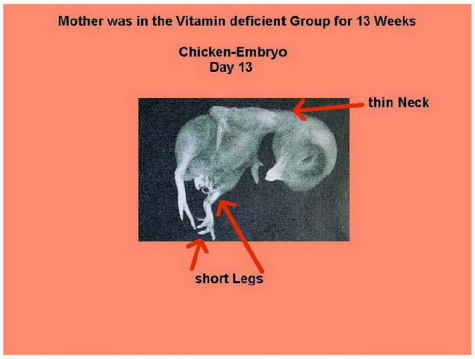
Among the group of chickens with vitamin D-deficiency, 35% of the offspring showed malformations. In contrast, only 1.5% of the offspring of chickens with adequate vitamin D nutrition displayed malformations. When the chickens with vitamin D-deficiency were subsequently given vitamin D for 5 weeks, the rate of malformations was reduced to 6%. When the scientists stopped feeding vitamin D, the rate of malformations saw another increase to 35%.

Figure 2: Normal Development, 13th Day



B. Karb, presented by Institute.VitaminDelta.de

Figure 3: Malformation, 13th Day



B. Karb, presented by Institute.VitaminDelta.de

Figure 4: Malformation, 13th Day

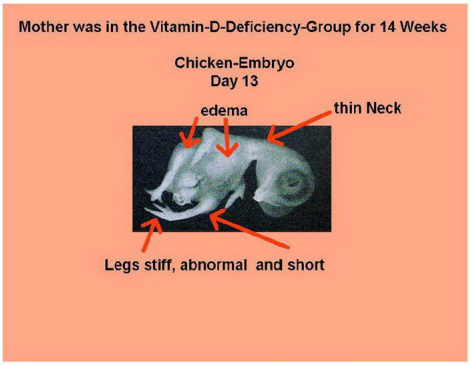


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Figure 5: Malformation, 13th Day

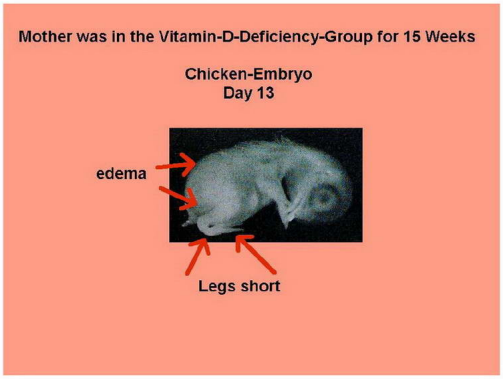

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Figure 6: Malformation, 13th Day

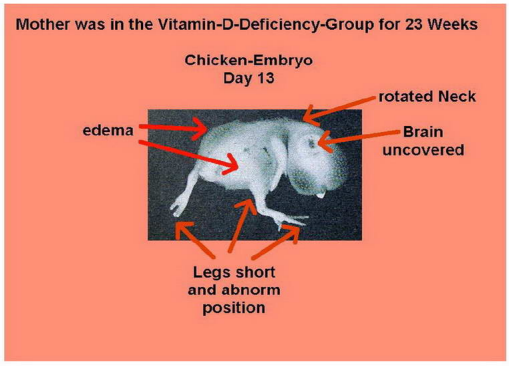

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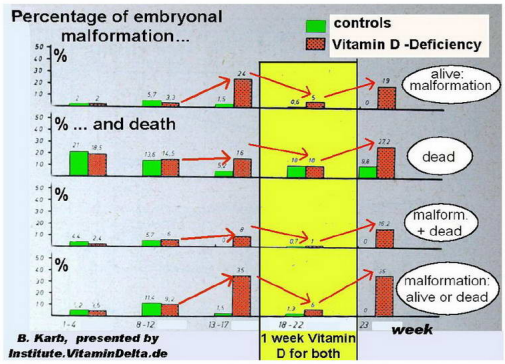
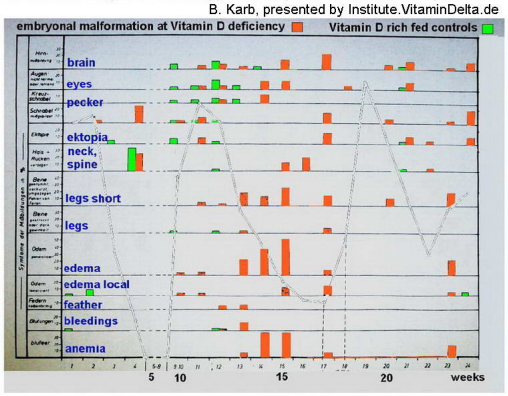
Figure 7: Pathology – Comparison of 2 Groups



Weeks of Vitamin D-Deficiency

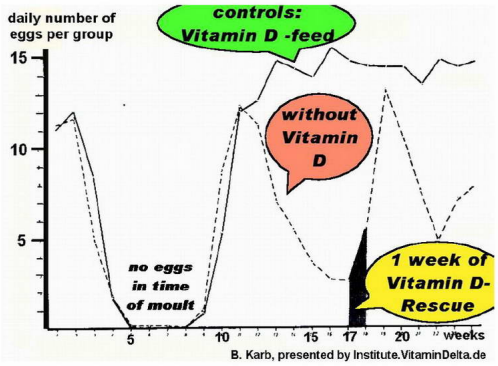
Figure 8: Macroscopic Pathology – Comparison of 2 Groups

B. Karb, presented by Institute.VitaminDelta.de



Weeks of Vitamin D-Deficiency

Figure 9: Vitamin D-Deficieny lowers the Rate of Eggs per Day



CONCLUSION:

Should women take vitamin D during pregnancy or not? This question is raised very often in a practitioner's daily routine. A nutritional experiment from the year 1969 with chickens shows that malformations are induced by the deficiency of vitamin D. The human risk of vitamin D-deficiency is common with overweight, smoking, anti-epileptic drugs and lack of sun exposure. These situations are calling for an adequate intake of Vitamin D. All pregnant women should be monitored for vitamin D-deficiency to prevent malformations of their children.