

Vitamin D deficiency in dead babies shows why official advice is misleading

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By **Olivier Gillie**

Unlike governments in other northern countries, ours says babies should not receive vitamin D supplementation until they are six months of age. This advice is failing the public

By Oliver Gillie, director of Health Research Forum, London

I have been involved in campaigning for changes to official advice on various aspects of vitamin D for the best part of a decade. Advice on exposing ourselves to the sun has, thankfully, changed: we can now sunbathe sensibly and recharge our vitamin D without being scared by threats of skin cancer. But a major anomaly in Government advice on infant feeding remains, putting a generation of children at serious risk of chronic disease and death. Pressure is now mounting for the Department of Health to reconsider current advice as a matter of urgency.



Since at least 1991, mothers have been advised not to give their children a vitamin D supplement until they are six months old. However, successive Government reports have failed to provide the scientific evidence for this advice or clearly spell out the reasoning behind it. Now an independent scientist, Mike Fischer, director of the Systems Biology Laboratory, Abingdon, has studied Government reports and demonstrated flaws in official reasoning.

The advice has been repeatedly questioned over the past eight years although officials have failed to address it. Now the issue is recognised to be urgent because babies dying in infancy have been found to have low levels of vitamin D in their bodies that might have been corrected if mothers had not been advised specifically against doing so.

As widely reported in the national media last week, Marta Cohen, a pathologist at Sheffield Children's Hospital, has found severe to moderate vitamin D deficiency in 45 children who died of natural causes. Most were under 12 months of age; 24 of the 45 were sudden deaths in infancy or childhood and 18 of the 24 were deficient in vitamin D. (Vitamin D modulates the immune system so reducing risks of infection as well as regulating calcium, which is important for normal action of heart and brain. So a low vitamin D level could increase the risk of sudden death in children, particularly cot deaths.)

At the same time, low levels of vitamin D were reported to have been found in 30 dead babies by Irene Scheimberg, pathologist at The Royal London Hospital. Four of the babies may have died as a direct result of low vitamin D: two died from cardiomyopathy and a third died of hypocalcaemic fits linked, according to Dr Scheimberg, directly to low serum calcium caused by insufficient vitamin D. Dr Scheimberg also found low levels of vitamin D in eight cases of cot death and in five children who died from complications of bronchial asthma. Another five of the babies had suffered combined bacterial and polyviral infections.

Two of the babies investigated by Dr Scheimberg had fractures and one baby, Jayden, was thought to have been abused. However the parents of baby Jayden, Chana Al-Alas, 19, and Rohan Wray, 22, were acquitted of murdering their son after the jury learnt that his fractures could have been caused by symptoms associated with severe rickets and vitamin D deficiency. In other cases parents have been found guilty of child abuse and been sent to prison while other children have been put into care.

Attacked

Waney Squier, consultant pathologist at the John Radcliffe Hospital, Oxford, who has spent 30 years studying infant brains, believes that half of those parents who have lost their children or been accused of shaken baby syndrome are likely to be innocent. However the courts have failed to understand the scientific reasoning involved and Dr Squier in turn has been attacked by lawyers and police officers: "Some judges don't like the fact that new scientific discoveries make convictions more complex, and the police don't like them because it can prevent them from getting the convictions they want," said Dr Squier.

Many of these baby deaths could have been avoided, believes Dr Fischer, who founded the campaigning Vitamin D Association, if Government advice to parents had been corrected. Dr Fischer has approached the Departments of Health in both Scotland and England to demonstrate how this error of evidence and reasoning has been perpetuated.

In England he has had discussions with Alison Tedstone, head of nutrition science at the Department of Health, and in Scotland with Sir Harry Burns, chief medical officer. Dr Tedstone is presently considering what new advice might be recommended while Sir Harry has passed the issue on to Charles Milne of the Food Standards Agency, who is considering the issue.

Babies that are breast fed are most at risk because breast milk of mothers in the UK contains little vitamin D, Dr Fischer points out. Almost everybody in the UK has low levels of the vitamin because of the climate and because of mistaken advice, now rescinded, that we should avoid the midday sun. However formula milk has for decades been supplemented with vitamin D showing that supplementation of babies in their first months is completely safe.

Dr Fischer points out that other countries, such as The Netherlands, Germany and those in Scandinavia, recommend supplementing babies with vitamin D from the first days of life. The risks of not supplementing in the early months are material, he says, particularly the risk of disease in later life, for example, diabetes type 1, asthma, allergy, osteomalacia and multiple sclerosis, as established by George Ebers and colleagues in Oxford. Professor Ebers calculates that a full vitamin D programme could save the UK some £10 billion a year in the costs of multiple sclerosis alone.

Dr Fischer told health officials two weeks ago: "This error should be corrected as a matter of urgency. We believe that it is in the public interest for action to be taken within a matter of months."

Dame Sally Davies, England's chief medical officer, said in a statement to The Journal this week: "If the mother has not taken vitamin D supplements throughout pregnancy, breastfed infants should be given vitamin D supplements from one month."

This advice, however, is not clearly stated in the guidance to health professionals on the Government's Healthy Start programme website. In any case, in my view, vitamin D should start in week one for all babies.

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Clarification

Oliver Gillie, is founder of The Vitamin D Company, which sells vitamin D products and promotes issues around vitamin D and health.

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