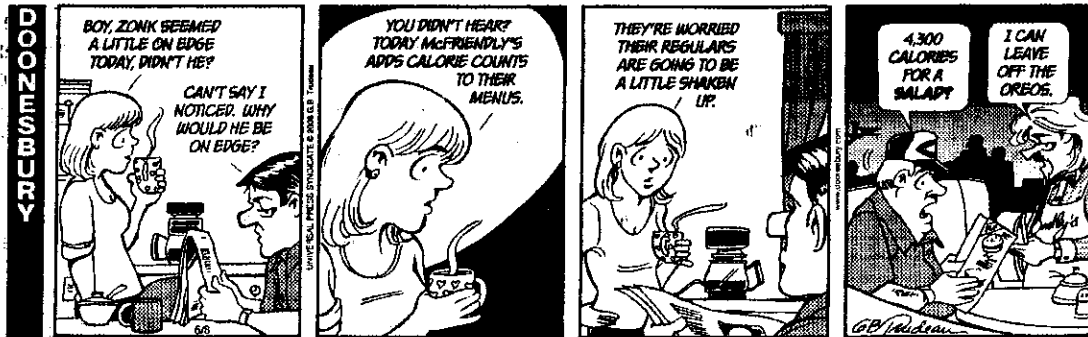


The Katrina Aftermath  
American Diabetes Association  
69<sup>th</sup> Scientific Sessions  
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Summary Prepared by Rob Lindsay, MD



### Vitamin D

I wanted briefly to mention the seminar on vitamin D and diabetes that I attended on Saturday. I will briefly skim over some of the points that they made. Dr. Stella Volte gave an overview on vitamin D. The source for vitamin D primarily is fish, milk and sunshine. Adults need 400 to 600 I.U. per day while children need 200 I.U. per day. There is little conversion of vitamin D in the winter in latitudes greater than 40 degrees because there is less sunshine. Vitamin D3 provides better effect than vitamin D2 and can be derived from animal tissues, fish oil and fortified foods. She stated that there is a question if multiple sclerosis, Type I diabetes, schizophrenia, breast cancer and colon cancer may come about from a insufficient vitamin D level. She stated that the vitamin D level is related to insulin sensitivity in adolescents. Adolescents with greater vitamin D levels have better insulin sensitivity. Forty percent sun exposure for three to fifteen minutes per day has been found to help prevent breast and colon cancer. Sunblock has led to much lower levels with an SPF 15 blocking 95% conversion of vitamin D. Dr. Elina Hypponen discussed vitamin D in Type I diabetes. She felt that there has been quite a bit of evidence to support an association. She felt that vitamin D may disrupt both the initiation and progression of T<sub>CC</sub> mediated pathogenesis of Type I diabetes. Animal studies have shown that vitamin D sufficiency offers partial protection and high dose vitamin D provided complete protection from diabetes. However, high dosing can lead to hypercalcemia which has its own problems. She reported a study where infants receiving vitamin D supplementation had a 30% reduction in the risk of Type I diabetes. The use of cod liver oil during pregnancy decreased the risk of Type I diabetes by 70%. In north Finland when they did not have vitamin D supplementation in infancy, the rate of diabetes was 200 per 100,000 children. When they had regular vitamin D supplementation, the risk was dropped by 80%. They found that the incidence of Type I diabetes correlated with decreasing the dose of vitamin D. As a result, northern Finland now provides vitamin D supplementation to all infants. *This is a field that needs considerably more study. We have gone through many different potential causes of diabetes but vitamin D keeps showing up. I suspect at the least it means that we should be using triple vitamins (A, D and C) drops with our infants. I do not recommend that we go for higher doses until we know the safety of the use and we have more studies showing efficacy. I would not object, however, to making sure all infants, even bottle fed infants, receive the triple vitamins.*