

RESEARCH HIGHLIGHTS

IN BRIEF

DIABETES

Preconception HbA_{1c} levels exceeding 6.9% are associated with increased risk of adverse pregnancy outcomes in women with type 1 diabetes mellitus. Jensen and colleagues assessed 933 pregnancies in women with type 1 diabetes mellitus to determine a threshold value for periconception HbA_{1c} levels below which the risk of serious, adverse pregnancy outcomes does not change. The researchers found that the rate of congenital malformation increased considerably when HbA_{1c} levels rose above 10.4%; perinatal mortality was increased even when HbA_{1c} levels were below 6.9%. These data support a recommendation of perinatal HbA_{1c} levels of below 7% in women with type 1 diabetes mellitus.

Original article Jensen, D. M. *et al.* Peri-conceptual HbA_{1c} and risk of serious adverse pregnancy outcome in 933 women with type 1 diabetes. *Diabetes Care* 32, 1046–1048 (2009).

BONE

Patients with chronic pulmonary obstructive disease could benefit from screening for low BMD and vitamin D supplementation to detect and prevent osteoporosis. Chronic use of systemic and inhaled glucocorticoids has been associated with bone loss. Franco *et al.* carried out a cross-sectional analysis of 49 patients with chronic pulmonary obstructive disease without chronic use of systemic glucocorticoids and hypothesized that these patients might also have low BMD. Over half of the patients had osteoporosis and BMD was associated with severity of disease. Low levels of vitamin D were detected in 94% of the patients.

Original article Franco, C. B. *et al.* Chronic obstructive pulmonary disease is associated with osteoporosis and low levels of vitamin D. *Osteoporos. Int.* doi: 10.1007/s00198-009-0890-5

NUTRITION

Vitamin D deficiency in the US population has increased dramatically in the past decade, a new report suggests. Ginde and co-investigators compared levels of serum 25-hydroxyvitamin D (25[OH]D) from NHANES data (1988–1994) to that collected from 2001–2004. Mean serum 25(OH)D levels decreased from 30 ng/ml (considered the minimum level necessary for general health benefits) during 1988–1994 to 24 ng/ml during 2001–2004. The proportion of individuals with at least 30 ng/ml of 25(OH)D fell from 45% to 23%. Increasing the recommended dose of vitamin D to 1,000 IU daily could improve the overall health of the US population, the researchers conclude.

Original article Ginde, A. A. *et al.* Demographic differences and trends of vitamin D insufficiency in the US population, 1988–2004. *Arch. Int. Med.* 169, 626–632 (2009).