

The authors suggest that children with relatively high or low leptin levels are less likely to lose body fat, as determined by skinfold thickness, during a 6 month hypocaloric diet, and that the ability to lose fat may be strictly dependent on genetic and environmental factors. Therefore, when environmental factors are altered, those with hyper or hypo-leptinaemia are less likely to respond to those changes.

Miraglia del Giudice E, et al. *Acta Paediatr* 2002;91:132-135.

Editor's Comment: This is an interesting and important manuscript even though some of the data do not reach statistical significance. Researchers have been unable

to show that fasting plasma leptin levels are indicators of the probable success or failure of weight-loss programs. Recent data suggest that, in adults, lifestyle changes including weight loss, and increased physical activity can significantly reduce the risk of Type II Diabetes in high-risk adults. The information in groups of patients who might be more amenable to weight loss programs is therefore very important. Further studies are required in order to better understand the etiology of the differences in leptin levels in the 3 groups of children studied by del Giudice. Confirmation of these data would be of great importance.

William L. Clarke, MD

Preterm Infants Born at Less Than 31 Weeks Gestation have Improved Growth in Cycled Light Compared with Continuous Near Darkness

The neonatal intensive care unit environment cannot possibly replicate the womb for all preterm infants. The purpose of this study was to evaluate the effects of cycled light versus near darkness on health and growth of preterm infants. The study was set up as a randomized interventional study comparing infants receiving cycled light from birth, cycled light at 32 weeks post-conceptual age, and cycled light at 36 weeks of post-conceptual age. Infants receiving cycled light at birth and at 32 weeks post-conceptual age gained weight faster than infants not receiving cycled light until 36 weeks (Fig 1). There was no difference among the groups in length of hospitalization stay, or number of ventilator days, but the power was low for these variables. The authors concluded that cycled light had significant weight gain benefits over near darkness in preterm infants.

Brandon DH, et al. *J Pediatr* 2002;140:192-199.

Editor's Comment: The findings of this study confirm the observations of others who reported that cycled light from birth or beginning at 32 weeks post-conception positively influenced weight gain in preterm infants. The positive effects of weight gain in preterm infants were first reported by Mann et al *BMJ* 1986;293:1265-7. However, there have been other reports that suggested that continued bright light is detrimental to the health of preterm infants (*J Perinat Neonat Nurs* 1991;4:47-54 and *Infant Behav Dev* 1995;18:87-95). Since near-darkness has become the standard of care in nurseries, these findings are important. The presence of significant circadian rhythms provided by maternal cycles even while the fetus is in the intrauterine environment suggest that replicating them after birth may be of benefit. *Growth, Genetics and Hormones* published an excellent

review of circadian rhythms written by Dr. Rivkees in Vol 18, No.1, 2002.

Cycled light could be important for human development, in addition to the demonstrated benefits in growth. The effects on weight gain, though significant, might only be one part of the benefit of cycled stimulation mimicking intrauterine life for the preterm infant. Potentially, cycled light may also have a major impact on retinal development and other functions.

Fima Lifshitz, MD

