



LACTATION INSIGHTS

WELCOME to the Spring, 2006 edition of Lactation Insights! This newsletter is written and published quarterly by Janet to support breastfeeding mothers and their families.

SLEEP HORMONES FOR BABY?

Melatonin, which is produced in the pineal gland is found in a mother's blood stream and in her breastmilk. The amount in the breastmilk varies throughout the day and night relative to the amount of melatonin the mother has in her blood. The pineal gland only produces melatonin when an individual is in darkness. Before the arrival of electric lights, we were in darkness about 12 hours per day, on average. Now most of us are lucky to be in darkness for 7 or 8 hours a day. For a new mother, this may drop to 4 or 5 hours per day. This means the time when her milk contains melatonin may be very short.

In 2001, two independent studies found that not all colors of light have the same effect in suppressing melatonin. It was found that it is the blue component in light that has the biggest effect. In a study at the University of Toronto it was found that if subjects wore goggles that blocked the blue light, they continued making melatonin despite being exposed to bright light. In blocking the blue light, they still had yellow, orange and red light to find their way around at night.

Using nightlights that do not cast a direct white light in the room, or using nightlights with a red, yellow or orange light will have the least effect on melatonin production. It is important not to expose the eyes to bright light when

getting up during the night to feed the baby or change a diaper. Even a few minutes of exposure to white light will stop melatonin production.

Janet's note: While we all desire long nights of uninterrupted sleep, it is important to note that milk production continues during the night. Milk production is actually highest between 1AM and 5AM. It is important for breastfeeding mothers to continue nursing during the night for many months to maintain their milk supply. A baby that is 2 months old gets 33% of their daily intake of calories by nursing during the night.

BREASTFEEDING HELPS PREVENT OVERWEIGHT TEENS

Obesity is reaching epidemic proportions in the United States, with 31% of adults and 15% of teens now obese by medical definition. Obesity is a serious health concern, being linked with problems such as diabetes, heart disease, and a shorter life expectancy.

The obesity epidemic has occurred along with low levels of breastfeeding, but links between the two have been hard to study. This is mainly because mothers who breastfeed tend to have higher education levels and higher incomes, both linked to less weight problems in their offspring.

Dr. Matthew Gilman surveyed over 5,000 children between the ages of 9 and 14 and was able to compare siblings who had been breastfed for different durations. He found that, even within a single family, children who were breastfed for a longer period were less

likely to become obese in the teen years, and that this advantage increased with the duration of nursing.

Gilman and colleagues estimate that, for every 4 months of extra breastfeeding, the risk of teen obesity was reduced by 6%. For example, an infant breastfed to age one has a 24% lower chance of teen weight problems than a baby weaned soon after birth.

Dr. Gilman suggests that breastfeeding may have lasting positive effects on body metabolism and may also allow children to self-regulate their intake: a skill that may help them to keep a normal weight life-long.

BREASTFEEDING BEYOND ONE YEAR

Breastfeeding rates are rising in the United States, but few infants are nursed beyond the early months. This trend is unusual: most of our foremothers nursed their babies for at least a year, and in many places, breastfeeding to age 2 or beyond is still the norm.

With our increasing understanding of the many benefits of nursing, many are now recommending a longer duration of breastfeeding. Both the American Academy of Pediatrics and the American Academy of Family Physicians advocate at least 12 months of nursing, and the World Health Organization recommends at least 2 years for optimal growth, development, and health.

Babies who are breastfed through the first year of life have fewer illnesses, both minor and major, and a lower chance of death, which extends to at least 3 years of age. Breastfeeding gives young children protection from deaths due to SIDS and injuries, as well as infections. The American Academy of Family Physicians states, "If a child is younger than two

years of age, the child is at increased risk of illness if weaned."

The benefits of breastfeeding increase with duration, and the disease-protective effects actually increase as weaning approaches. As the milk supply decreases near the end of weaning, the milk changes back to a composition that is similar to colostrum. Some have called this increased concentration of antibodies as breastfeeding declines, the "parting gift" to the baby, ensuring on-going good health and strong immunity.

In a study by Dewey in 2001, it was found that human milk expressed by mothers who have been lactating for over a year has significantly increased fat and energy contents, compared with milk expressed by women who have been lactating for shorter periods.

In the second year (12-23 months), 448 ml. Of breastmilk provides:

- 29% of energy requirements
- 43% of protein requirements
- 36% of calcium requirements
- 75% of vitamin A requirements
- 76% of folate requirements
- 94% of vitamin B12 requirements
- 60% of vitamin C requirements

Breastmilk is good for your baby—even beyond a year!

THE BENEFITS OF OMEGA-3S FOR PREGNANT AND NURSING MOTHERS

My new handout on the importance of Omega-3s can be found on my web site: Lactationinnovation.com/omega-3s.htm

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