

Presence of light points to breakthrough

by Sue Ek

It sounds ridiculous! People usually laugh when they hear it, but that doesn't stop Mrs. Joy DeFelice, R.N., B.S.N., P.H.N., of Spokane, Washington, from studying the powerful effects light can have on a woman's menstrual cycle.

"It's an amazing phenomenon," said Joy, "yet once you know what to look for, it can be very apparent."

In 1976, Joy began observing and working with the effects that artificial and natural light can have on the cervical mucus patterns of women. Over succeeding years, she observed additional areas within the menstrual cycle that were also affected by light. Specifically, she has found that it is the presence of light during the woman's primary sleeping hours that can affect the hormones which govern her menstrual cycle.

Joy routinely includes this information as a part of her Natural Family Planning classes at Sacred Heart Medical Center.

Joy also later discovered that for some couples, the presence of light during the woman's primary sleeping hours definitely proved to be an independent factor in the brain affecting their ability to conceive. "There are so many biochemical steps that take place within the brain from light messages picked up from the environment. Even during the night, the brain can read light if it is present in or around the sleeping environment."

A lack of early dry days are among the problems that women experience with too much light; also difficulty in identifying Peak. An extended mucus pattern or a poor mucus pattern are other problems often triggered by too much light, as well as delayed ovulation or an inadequate luteal phase. In order to overcome these and other problems, Joy advises eliminating light until sufficient darkness is reached to normalize the woman's charted pattern. The woman then needs to consistently maintain that level of darkness. She states that "the lighted numerals on digital clocks can be a prime offender."

According to Joy, it is known that the brain (specifically the hypothalamus and pituitary glands) is the cycling center for the hormones which govern the menstrual cycle. "In early 1978, we gained particular insight into why and how these light influences might work within the brain from research conducted on laboratory rats by Richard J. Wurtman, M.D., Associate Professor of Endocrinology and Metabolism at the Massachusetts Institute of Technology.

"In two of his papers entitled, 'Biological Implications of Artificial Illumination' and 'The Pineal and Endocrine Function,' Dr. Wurtman points out that light can be transmitted through the eyes to the pineal gland in the brain."

"The pineal gland has undergone extraordinary changes with evolution," writes Dr. Wurtman. "It has developed into an unusual kind of gland, a neuro-endocrine transducer. This means that this gland can take an outward stimulus (light), which is relayed through a special optic (eye) nerve route to the pineal gland, which can then convert this light impulse to a hormonal output (called melatonin)." Joy postulates that melatonin is stored in the hypothalamus which, again, is the cycling center for the woman. "Therefore, if the definite 24-hour rhythm of melatonin (normally low during the day and high during the night), becomes imbalanced, then the hormones of the menstrual cycle can also become disturbed." Joy has collated formal details on her scientific rationale of the light phenomenon in human reproduction.

"In the beginning, we thought these light influences would be seen only occasionally. But it soon became apparent that light interference in cervical mucus patterns, as well as all the other phases of the human menstrual cycle, was quite common." To date, Joy has become aware of a total of 30 different areas wherein the woman's reproductive hormones can be affected by the presence of light during sleep.

Now, Joy is able to solve menstrual cycle pattern difficulties much more readily by, in most cases, eliminating a sufficient amount of light during the woman's primary sleeping hours and maintaining that level of darkness.

In women who threaten to miscarry, Joy's findings are also particularly useful. She has had several cases where the women were pregnant, but developed early pregnancy bleeding and no specific cause found by their physician. In two of the cases, ultrasounds had been done and a D & C was scheduled because of no signs of continued pregnancy. The women happened to contact Joy about the bleeding, and in all cases she advised them to immediately eliminate all light from their sleeping area. She also suggested in the two ultrasound cases to postpone the D & Cs as well. In each instance, the bleeding lessened dramatically and usually stopped altogether. In the two ultrasound cases, the test was repeated a week later and the pregnancy was found to be present and progressing. Darkness was maintained throughout all the above pregnancies and they were successfully completed.

"I know that bleeding definitely reacts to light," Joy said. She has also repeatedly observed cessation of abnormal luteal phase spotting and also daily spotting during breastfeeding with elimination of light at night.

Joy's initial research was conducted on women attending instruction for general NFP information who were asked to participate in a study of environmental factors on the menstrual cycle. She later also conducted research on women who were unable to conceive. The first group did not know that Joy had any knowledge of the effects of light on the cycle.

According to Joy, research results indicate that couples who need to eliminate light to resolve problem areas within their menstrual cycle, will all observe positive changes in their charted patterns if the process is done correctly for that individual woman's pattern. The normalization of the hormonal pattern also assisted couples attempting to conceive.

Joy gave her infertility research sample saying, "Out of 48 women who had been unable to conceive, 26 conceived who worked consistently with us on light elimination. Seven were found to have contributing medical factors for their infertility; fifteen inconsistently applied light elimination and none conceived."

When experimenting with light elimination, according to Joy, because of technology, there are several light sources that women may not even consider. Electric blanket controls, computer lights, digital clocks, night lights; motion detector lights going on & off throughout the night, streetlights; even the reflection of snow and moonlight through large windows can affect a woman's cycle, as well as numerous other sources, both within and outside the sleeping area. Remember seasonal changes, too, when a tree blocking a streetlight loses its leaves in fall and winter. Also, the increased light from earlier sunrises in spring and summer.

"Very often, the elimination of light will alleviate the problems in a woman's cycle. Her mucus pattern, and other phases, will settle into a more normal sequence and usually will remain that way in following cycles as well, as long as she continues sleeping in sufficient darkness."

Joy advises that each woman needs to find the level of darkness during her major sleep period that provides the best stability for her hormones. As in all areas of Natural Family Planning, it is best to work on the effects of light with an experienced, certified instructor if at all possible.

Joy has a booklet available that collates all her clinical observations to date in all reproductive circumstances, including breastfeeding and premenopause and the numerous light sources reported by couples. Cost is \$5.00 which includes postage. She can be reached at:

Sacred Heart Medical Center
Women's Services - Suite 428
Attn.: Joy DeFelice, R.N.
PO Box 2555
Spokane, WA 99220-2555
Phone: 509-474-2214
Fax: 509-474-3488

A booklet on this topic is available for checkout. Call the Office of Marriage and Family at (320) 252-4721 for ordering information.