

# Light and Darkness During Sleep Affect A Woman's Fertility and Infertility

It is known that there are many things that affect a woman's cycle. Stress, exercise, and diet as well as medical circumstances come first to mind when understanding why a woman experiences many days of infertile and fertile mucus.

Mrs. Joy DeFelice, R.N., B.S.N. P.H.N. in her publication, "The Effects of Light On the Menstrual Cycle: Also Infertility", 1996, encourages users of natural family planning to consider the effects of light on the menstrual cycle. After adjusting light and darkness during sleep many women can identify clear patterns of fertility and infertility in their cycle.

Mrs. DeFelice proposes that the pineal gland responds to artificial and natural light resulting in the production of melatonin which is stored in the hypothalamus gland, which controls the menstrual cycle hormones. Mrs. DeFelice writes, "When the 24-hour rhythmic level of melatonin is lost due to the presence of abnormal levels of light at night, **both the normal progression of hormonal events within the menstrual cycle and the normal circulating levels of each reproductive hormone can become disrupted.**"

Women need a sufficient balance between light and darkness for the normal process of fertility to occur. Mrs. DeFelice has been able to help women regulate this balance so that their cycles develop a clear pattern of fertility and infertility and pregnancy can be more easily avoided or achieved and bleeding during early pregnancy can be stopped.

Women experiencing any of the following circumstances that have not responded to other treatments may benefit from altering their exposure to light and darkness during sleep.

## Cycles lengths

- cycle length variation of more than 8 days
- cycle lengths less than 25 days or more than 35 days
- very irregular cycles

## Menstruation

- light/heavy menstrual flow of less or more than 5-6 days
- prolonged spotting
- abnormal color
- menstruation that stops and starts again
- menstruation that may stop altogether
- fertile mucus with menstruation

## Time between menstruation and the beginning of fertility

- days of little or no dryness for longer than 3-5 days

## Fertile phase of the cycle

- mucus in small amounts or poor quality
- mucus that is difficult to describe
- patches of mucus
- mucus that has both fertile and infertile signs
- fertile mucus lasting 10-14 days before Peak
- ovulation that does not occur
- ovulation not coinciding with Peak
- bleeding at times in the cycle other than menstruation

## Luteal phase

- days from Peak to menstruation are less than 10 days
- an abnormal discharge after Peak

## Special circumstances

- difficulty achieving a pregnancy
- bleeding, cramping or pressure in early pregnancy
- fluctuating mucus patterns during nursing
- increased pre-menopausal symptoms

## Basal body temperature

- abnormal temperature pattern
- erratic pre-ovulatory pattern
- baseline difficult to establish
- baseline abnormally high
- sustained temperature shift
  - is delayed in the cycle
  - does not coincide with fertile mucus
  - does not occur
  - lasts less than 9-10 consecutive days
  - is erratic or weak
  - has pronounced dips in temperatures

Mrs. DeFelice explains that each woman needs to determine the level of darkness during sleep best suited for stability of her hormones. Some women require a high level of darkness while others require a low level of light. Therefore, it is necessary to eliminate sources of light until a woman "feels comfortable". The room need not be dark as a dungeon.

Until the woman's hormones adjust to the change to darkness she may experience confusing patterns with her mucus. Before evaluating the effectiveness of darkness for an individual woman "**three consecutive cycles**" (six cycles after childbirth, trying to achieve pregnancy or coming off the pill) in a "sufficiently dark" environment need to be experienced.

A room is "sufficiently dark" if after at least 15 minutes furniture and objects on the furniture or in the room cannot be identified. In order to arrange a sleeping area "sufficiently dark", consider eliminating light sources such as:

- illuminated/digital clocks, phone machines...
- lights, nightlight, wall switch, nursery monitor light...
- control light from electric blanket, waterbed, heat pad...
- TV, VCR, stereo, humidifier...
- electric heater, wood stove, fireplace...

Protect the sleeping area from lighted areas such as:

- bathroom, child's room, hallway...
- porch, street, motion lights, bug lights, neon lights
- sunlight, reflection from snow, water, mirror...
- thin shades, see through curtains, skylights, glass door...

"Also, **bright** early morning light **SHOULD NOT** enter the sleeping area before 6:30 – 7:00 A.M. (unless you usually get up near sunrise but also go to bed early.)"

Individuals interested in darkening their sleep area are encouraged to contact their natural family planning teacher for assistance or call the Department of Education 313-237-4679 or email [nfp@aod.org](mailto:nfp@aod.org)