Some Clarifications Concerning NaProTECHNOLOGY and the Billings Ovulation Method. (BOM)

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In "The Medical and Surgical Practice of NaProTECHNOLOGY" by Thomas W Hilgers M.D. *Pope Paul VI Institiute Press, Omaha Nebraska, July 2004* the claim is made that "standardization of the Billings Ovulation Method of family planning would greatly enhance its precision and flexibility and, hence, its effectiveness in helping couples achieve or avoid pregnancy" ***P. 33*.**

He defines Creighton Model Fertility Care System as "A Standardized Modification of the Billings system".

In the Hilgers text book "NaPro" means "Natural Procreative" and refers to the system of fertility regulation using the Creighton Model Fertility Care System (CrMS).

NaProTECHNOLOGY is defined in the Table of Contents (X1) as "the union of Procreative Education and Medical Technology". On **page 19** it is stated that "NaProTECHNOLOGY is the first system to network family planning with reproductive and gynaecological health monitoring and maintenance".

Some clarifications are timely.
In this commentary, remarks have been confined to pointing out the differences in the two teaching methodologies of CrMS and BOM. It has been necessary to comment because of the confusion felt by many people, new to natural fertility regulation, who believed either that BOM was superseded by CrMS, or was the same but that CrMS was more professional, standardized and superior.

CrMS is not the same as the BOM. The two systems are different and must be kept separate.

Monitoring reproductive health has always been a major concern of the BOM. Its value as a diagnostic tool was recognized early in the history of the Method.

BOM plus Professor Brown's studies of all cycle variants, normal and abnormal, and cervical studies in health and disorders by Professor Odeblad, have been invaluable in diagnosis of many abnormalities, leading to early remedies. Particularly beneficial has been their work in alleviating couples' failure to conceive.

Medical and surgical intervention is provided, where appropriate, by those specialists who recognize the value of the BOM and the wealth of information that the woman's chart can supply.

The claim that NaProTECHNOLOGY is more precise, flexible and effective than the BOM is refuted.
Both BOM & CrMS as well as other natural fertility regulation methods recognize and use the cervical mucus as the principal biomarker of fertility. This is correct because it is essential to fertility. If there is no mucus, sperm will not survive and fertility is nil. The discovery of the significance of the mucus pattern was made by Dr John Billings when

he began to help couples to regulate their fertility in 1953. The clinical observations of the mucus secretions, discovered by listening to the women, led to the development of the Rules of the Billings Ovulation Method. These Rules have been validated by the scientific work of Professors James B Brown and Erik Odeblad. Originally the Method was called the Ovulation Method, but on the advice of the World Health Organisation it was changed to the Billings Ovulation Method to protect the authenticity of the orthodox BOM.

Since the discovery of the significance of the mucus, various methods of natural fertility regulation have been developed which use the mucus in different ways to make a method, usually combined with other markers. All these methods, including CrMS have deviated from the recognized science by changing the Rules and the way the woman makes her observations.

The BOM is a completely natural system of fertility regulation, cooperating with the women's observed patterns of fertility and infertility. As the BOM chart accurately reflects the state of the woman's fertility and infertility, it is a reliable diagnostic tool for reproductive health. It has been recognised as a diagnostic tool for medical specialists for 40 years or more. Educational programmes in the BOM are currently being offered to doctors so that they can work closely with BOM teachers for monitoring reproductive health and for providing remedial care.

Generally BOM teachers are not doctors. Often in the poor countries, they are illiterate. With good training, they soon become competent. This is due to the innate simplicity of the Method and the quick acceptance of the couples who recognize its natural goodness and validity.

BOM is fully supported by the scientific research of Professor James Brown of Melbourne Australia, acclaimed in the field of ovarian hormone analyses, and by Professor Erik Odeblad of Sweden who has investigated the anatomy and physiology of the women's reproductive system, particularly the cervix and mucus secretions. All this scientific research has accorded accurately with the woman's chart and confirmed the BOM Rules for the achievement or avoidance of pregnancy. The research has been verified in other world laboratories including the World Health Organisation.

CrMS is frequently referred to in Dr Hilger's book as a "Standardized Modification of the Billings Method".

Standardization enhances neither precision nor flexibility. BOM is flexible because women are individuals. It is precise because it is proved by reliable science. The effectiveness of BOM over many years and trials is well documented.

CrMS and BOM do not combine mucus with other markers. The methodologies of these two methods differ in the way of observing, charting and using the information (applying the Rules). The orthodox method (BOM) of observing, charting and applying the Rules has been altered by CrMS to form the "standardized modification".

Women's observations will never successfully be standardized because women are individuals who operate individually. The recorded information means exactly what it says. From this accurate record, the patterns of infertility and fertility are interpreted and the Rules applied.

The authentic BOM stands alone with <u>specific instructions and rules.</u> The methods are fundamentally different and should be kept separate. We object emphatically to the changes made to the BOM by Dr Hilgers in his textbook. They reveal a deep non-understanding of the Billings Ovulation Method. There was no consultation with us to modify or standardize the "Billings Method". The result has been destructive and confusing to many couples. The BOM remains as described in the authentic WOOMB literature – not as modified by Dr Hilgers.

Observations Concerning Subjective and Objective Observations

CrMS,
Dr Hilgers states that he has changed the observations of cervical mucus in the orthodox BOM from subjective to objective observations, so that instead of a woman experiencing and recording changes in sensations at the vulva caused by presence or absence of mucus, bleeding, seminal fluid or other discharge (this is a subjective observation) she determines sensation with toilet paper wiped over the vulva until dry (objective observation).

BOM
The woman is asked to record:

how she feels at the vulva	- a symptom, subjective, valid and natural, and
what she sees	- a sign, objective, valid and natural.

Odeblad also offers the finding that it takes 5 mg of mucus to result in the slippery sensation and 10 mg for the sticky sensation. The quantity must be greatly increased in order to be seen. *Reference: Atlas of the Billings Ovulation Method, 5th edition April 1989, Appendix 1, Page 91: Erik Odeblad MD PhD*

CrMS
Specific use of toilet paper to make observations is a necessity for the standardized system of CrMS thus devaluing the valid observation of sensation.

Finger testing of any visible mucus on the paper is a requirement of the CrMS. Women are asked to categorise the observation depending on the stretchability of the secretion. Sensation is determined by wiping.
The picture dictionary is another means used for standardization in CrMS of visible observations. The woman is asked to match her sample of discharge against the picture dictionary – stretchability, colour, density and quantity.

Comment
There may be room for an error of judgment by the woman here in finding her own picture. She may select the "nearest". She will not always find the picture of the discharge which fits her observation. She will not find her vulval sensation illustrated.

Each woman is an individual. There is a lessening of the value of the observation of the discharge if the woman is expected to place her individual observation into a pre-designed standardized category.

BOM

Instructs the woman to be aware of vulval sensations over the whole day just as she walks around and goes about her ordinary activities. The woman observes all characteristics of the discharge and uses her own words to record it, whenever she senses or sees its presence. Sensation is what the vulva feels anytime throughout the day. She is alerted by a change in sensation to something being present at the vulva, which may or may not be seen.

Finger testing is not part of the BOM.

The woman's own words will always mean more to her than a standardized list. When charted daily, each evening, the patterns of fertility and infertility of that particular cycle will be revealed. An unchanging pattern will be recognized as infertility - Basic Infertile Pattern (BIP). The changing, developing pattern, reflecting the rising oestrogens, alerts the couple to their possible fertility.

Sensation is more important than visible observations. Blind women use the Method successfully. Stretchability is a measure of quantity which is not of greatest importance. The vulval sensation of slipperiness without anything to see or stretch is a symptom of high fertility, the Peak and ovulation.

Seminal Fluid Observation

CrMS

The woman is instructed to use Kegel's exercises to expel seminal fluid within one hour following intercourse, wiping the vulva until dry.

BOM

The instructions concerning the residue of seminal fluid following intercourse on the night before are simple. "Chart what is observed".

In BOM, seminal fluid is usually noted on the day following intercourse. In the pre-ovulatory phase of the cycle there will be no recognizable BIP on that day, therefore that evening is not available for intercourse. The next day is evaluated regarding the continuance of the BIP and availability for intercourse on that evening. From the 4th morning after the Peak, regardless of the presence of seminal fluid, intercourse is available as the ovum has disintegrated and the woman is infertile. Observations are recorded in the woman's own words.

The sensation and appearance of seminal fluid may exhibit a wide variation in description depending on when the act of intercourse occurred, and in what part of the cycle. She will learn this by charting accurately, not by wiping it away as in CrMS.

The instruction to the woman to expel seminal fluid, presumably because it is confusing or restrictive, is totally rejected by BOM, as unnatural, intrusive and divisive. The BOM observes and records nature as it is and the couples cooperate with the rules of these observations, and with each other, without unnatural practices.

Charting

CrMS

Uses the coloured stamps of the BOM in the "Standardized" model but changes the meanings.

Comment

This has created confusion for those who have believed the CrMS to be really BOM but "modified and standardized".

BOM

Each coloured stamp and the corresponding international symbol has a specific meaning. By using her own words to describe her observations, the record is very clear to her and accurately follows the hormonal patterns of the cervical, vaginal and endometrial responses, and others described by Professor Odeblad concerning heart rate and lymphatic signs.

Recording Systems

CrMS	BOM
In CrMS the recording and Rules of the BOM have been changed. *A plain green stamp no longer means "Dry".*	A plain green stamp means "dry" and means "feels nothing, sees nothing" and this signifies low ovarian hormones pre Peak. It is also used in the luteal phase to record a dry day.
Plain green stamp in the "prior phase of the cycle" is used to record a day of dampness after dryness.	BOM regards this change in sensation as a sign of possible fertility with a rise in oestrogens, and a need to obey the 3rd Early Day Rule "wait and see" in order to observe further developments. The change from dry to no longer dry may signify the beginning of the changing pattern of fertility which is due to the changing proportions of different types of mucus coming from the cervix with different functions as shown by Professor Odeblad. **Ignoring this change to potential fertility is a serious flaw in the CrMS**
Coloured baby stamps are used following a change of more than two days (in case of ovulation)	BOM uses plain coloured stamps with a count of 123 to indicate the return of the BIP after any change with no Peak and uses coloured baby stamps only after the Peak to indicate probable fertility due to the timing of ovulation and ovum survival.
Use of Pre-Peak Yellow Stamps. *Yellow stamps to be used upon specific indication when the teacher recognises the "good candidate" for the use of yellow stamps.* ***Page 122***	Plain yellow stamps are used to identify pre-ovulatory and post-ovulatory infertility when the woman is not dry but has a discharge. Plain yellow stamps are used pre-ovulatory when the BIP of Discharge is identified.

	The identification of the BIP depends on the fact that the pattern is unchanging. All women can be taught to identify their own individual patterns.

The Basic Infertile Pattern (BIP)

An understanding of the BIP is the key to the woman understanding and managing her times of pre-ovulatory infertility. Before the understanding of the BIP with the BOM, there was no reliable marker of pre-ovulatory infertility. The Rules for the BIP were formulated as a result of clinical observations and scientific verification with the work of Professors James Brown and Erik Odeblad. It is what makes the BOM unique and it is not fully understood by other natural methods of fertility regulation.

An understanding of the BIP is essential for using the BOM.

The length of the BIP is variable from cycle to cycle.

- In short cycles there may be no BIP.
- When a woman is experiencing cycles of average length, she will soon learn to recognise her BIP which is unique to her: it will be either a BIP of Dry or a BIP of Discharge.
- When ovulation is delayed, the BIP is prolonged. Two weeks of charting will allow the woman to recognize her unchanging pattern which may be unchanging dryness, unchanging discharge or a combination of both.

There are 3 BIP patterns when ovulation is delayed.

1. Dry – preovulatory oestrogens are low.
2. Slightly raised oestrogens produce a discharge of vaginal origin which is unchanging over two weeks without bleeding.
3. A combination of 1 and 2 reflects the slight fluctuations of <u>low oestrogen levels</u>.

CrMS

<u>P122</u> *In speaking of the pre-peak with the use of yellow stamps "A large group of women who are using pre-Peak yellow stamps has, as a subject of specific study, never been evaluated from the point of view of the effectiveness of the infertility of these days" and in* ***<u>P125</u>*** *Dr Hilgers reports the study of 10 women by Dr Cvetkovich in 1988 as "the only study which has ever been conducted" showing the point of change coinciding with the first oestrogen ri*se.

<u>Comment</u>

Dr Hilgers does not acknowledge that Professor James Brown verified this clinical observation of the BOM over 40 years ago *Studies on Human Reproduction, Ovulation Method Research and Reference Centre of Australia, Melbourne July 2000* **Professor Brown's scientific validation is the result of in excess of 750,000 hormone assays of numerous women at all different stages of reproductive life.**

Neither does he acknowledge the work of Professor Erik Odeblad in which he explains the source of the BIP of discharge.

BOM

The change from the dry BIP had been studied by Professor Brown, and shown to accompany the oestrogen rise and the beginning of the fertile phase.
The plain yellow stamp was introduced in 1972 to indicate infertility in the circumstance of a continuous discharge. Professor Brown demonstrated that a change from the BIP of Discharge recorded by a white baby stamp, indicated a rise in oestrogen and the beginning of the changing fertile pattern of cervical mucus. **This was clearly set out in 1973 in the first edition of the Atlas of the Ovulation Method.** *Ovulation Method Research and Reference Centre of Australia, Melbourne, Sept, 1973*

Professor Odeblad has also studied the cervical response to the hormonal changes and explains the BIP of Discharge in cycles of average length:
The discharge is unchanging and comes from the lower end of the cervical plug which at this time reflects a low basic level of oestrogen and provides an impenetrable barrier to sperm by occluding the cervix.

It is only when ovulation has been delayed that the vagina has time to respond to slightly raised oestrogens which stimulate growth of the intermediate layer of epithelial cells which are then shed, disintegrate and cause a discharge. The woman will recognize the unchanging pattern of this discharge and identify infertility. Professor Odeblad has demonstrated that the G mucus plug is occluding the cervix at this time. The BIP of Discharge in these different situations is therefore of different origin. The interpretation is the same: the unchanging pattern identifies infertility.

CrMs

CrMS has renamed BOM, Basic Infertile Pattern (BIP) as "essential sameness pattern" ESP, with different rules leading to confusion for those who think BIP and ESP are the same.
P119 ***"****The Essential Sameness Pattern (ESP) of the mucus indicates ovarian quiescence"*.

Comment
Different Basic Infertile Patterns occur at different oestrogen levels, i.e. at different levels of ovarian activity. The BIP is an unchanging pattern which indicates an unchanging level of oestrogen.

- This level may be basic, the BIP is then dry or of an unchanging, slight discharge.
- The ovary can become active and produce a slight rise in oestrogens which stimulates the vaginal epithelium resulting in a BIP of cellular discharge – different for each woman but unchanging over 2 weeks or more.
- The oestrogens may rise still higher and become arrested at a level which stimulates the cervix to produce mucus with fertile characteristics which remains unchanged over two weeks or more.

In those circumstances where the cervix fails to respond to raised oestrogens due to age, damage from hormonal medication, etc, the BIP continues throughout, including

ovulation. As there is no mucus there is no sperm survival and consequently no conception is possible. The unchanging pattern indicates infertility.

CrMS

P. 123-4 *In the instructions for using yellow stamps in cycles less than 38 days, Dr Hilgers also adds: " when the mucus cycle is more than 8 days".*

Comment

The length of the mucus development during the follicular phase cannot be known beforehand. It varies from cycle to cycle, and becomes quite short in some circumstances, eg. approaching menopause, lactation.

BOM teaching about the BIP of Discharge in average and short cycles.

The mucus which passes through the vagina to the exterior is the same day after day and comes from the lower end of the G plug in the cervix. Plain yellow stamps are used to record the BIP from the 2nd cycle. Abstinence is advised in the first cycle until the Peak is identified. The Peak Rule can then be applied.

It requires 3 cycles to chart the BIP and the point of change which marks the oestrogen rise. (Each woman has her own oestrogen basic level and within certain limits, her individual level at which she ovulates.) The woman can identify the beginning of possible fertility, that is, the point of change, but she cannot predict if or when she will ovulate. She can assess her fertility or infertility each day and this allows the couple to choose to conceive or avoid the possibility.

The length of the BIP varies from cycle to cycle. In short cycles there may be no BIP. The Early Day Rules are applied in the 4th cycle.

CrMS

The text book states on ***Page 123*** *apart from "mucus cycles of longer than 8 days of length" the yellow stamp is limited to two other categories:*

- *"Long cycles longer than 38 days in duration*
- *Breastfeeding prior to the beginning of the first menstrual period."*

BOM teaching about the BIP of Discharge when ovulation is delayed

When cycles lengthen under many physiological circumstances e.g. lactation, pre-menopause, stress, and some pathological conditions e.g. due to contraceptive medication, the application of the Early Day Rules to the BIP becomes essential, otherwise abstinence is the only alternative. Two weeks of charting without intercourse and in the absence of bleeding, will be sufficient for a woman to recognize her unchanging pattern. The Early Day Rules can then be applied to this identified BIP of Discharge which is of vaginal origin . It is recorded with plain yellow stamps.

The BOM can be used in all physiological circumstances, when ovulation is delayed and cycles are greatly extended, or when due to early ovulation, cycles are short. The fluctuating oestrogens will be reflected by changes from the BIP depending on the sensitivity of the target organs, endometrium, cervix and vagina. Infertility and potential fertility will be recognized in the recorded patterns.

The Peak of Fertility

BOM

There is only one Peak.

The Peak Rule for the avoidance of pregnancy: Intercourse is available from the beginning of the 4th day after the Peak and at any time for the rest of the cycle. The day begins at midnight.

The Peak has been shown by Professor Brown to correspond to a consistent pattern of oestrogen rise from a basic low level to a pre-ovulatory peak. The levels vary in each individual woman. As the oestrogen falls, a rise in progesterone occurs and ovulation usually coincides at this point. Rarely it is delayed one day and very exceptionally two days. Professor Brown verified the hormonal pattern of the BOM Peak in 1963. Ultrasound verified these findings in 1983.

The white baby stamps of BOM are used to define the developing pattern and the Peak is marked with a X on the last day of slipperiness whether there is anything to be seen or not. It is recognized in retrospect on the day of change. Usually the quantity of mucus is greatest one or two days before the Peak. The count of 3 days following Peak is recorded with a green coloured baby stamp if the description is dry and/or a yellow coloured baby stamp if there is a discharge.

When the BOM chart reveals a change from the BIP this is a reflection of an oestrogenic rise, resulting in a response either by the cervix or the vaginal epithelium. If there is no identifiable Peak it is likely that there has been no ovulation and the return of the BIP will be recognised. The progesterone rise is responsible for the second point of change which identifies the Peak.

It is the luteinization of the follicle beginning just before ovulation which produces progesterone and brings about profound physiological changes in the cervix and lower vagina. The resulting characteristic changes in the mucus, identifiable at the vulva, defines the Peak. Without ovulation the raised oestrogens responsible for the cervical reaction slowly subside, and the BIP returns. Professor Brown's "Studies on Human Reproduction" **Page 16** states: "The actual level of progesterone output associated with the moment of ovulation can be specified within a small range which applies to most women, and this, in the presence of an oestrogen fall is a very accurate marker for timing ovulation."

If there is no Peak, the 3rd Early Day Rule is continued with the count of 3 days, recorded by numbered plain green or yellow stamps when the BIP returns, indicating a return of the oestrogen to the low level of the BIP. The wait is required to demonstrate the re-establishment of low levels of hormones.

In situations where ovulation is delayed, e.g. severe stress, during the pre-menopause, or during weaning, the chart may reveal changes from the BIP which do not progress to Peak. The BOM Rules cover these eventualities.

A woman knows her Peak "like the face of her baby". There is only one ovulation day in any cycle.

CrMS
*Dr Hilgers states on **Page 134** that ovulation has been shown to occur "from 3 days before peak through 3 days after it*".

Comment
This statement ignores the scientific work of Professors James Brown and Erik Odeblad and is more likely a reflection of an inaccurate definition of the Peak due to the inaccuracy of the observations.

BOM
The BOM recognises the work of Professors Brown and Odeblad in identifying the Peak as the last day of the slippery sensation. There may be nothing to see but if the slipperiness persists the Peak can only be defined as the last day of that slippery sensation. There may be some mucus on the days following Peak but there will be no slipperiness or wetness. The BOM guidelines teach the woman to identify the progesterone change and Peak "The rapid rise in progesterone secretion strongly counteracts the effect of oestrogen on the cervix and vaginal epithelium and thus causes the progesterone change (PC) in the mucus pattern which occurs near ovulation and defines the Peak Day" as described by Professor James Brown in his monograph, Studies on Human Reproduction. Page 15.

CrMS
*Dr Hilgers on **page 134** speaks of the unanswered question of why a woman can conceive on the 3 days following the Peak even though she says she is dry.*

BOM
Professor Odeblad answers this question by explaining the function of the Pockets of Shaw which under the influence of progesterone liberate manganese and cause a dehydrating effect on any mucus with fertile characteristics passing through the vagina to the exterior. Until 3 days from Peak have passed, the cervix will still contain S channels and P mucus capable of transporting sperm. By the beginning of the 4th day after the Peak the cervix is narrow and occluded with G+ mucus rendering it impermeable to sperm, and the woman infertile. If the guidelines to avoid pregnancy have been followed, menstruation will occur within 16 days (11-16 days is the normal fertile length of the luteal phase).

Because of this lack of understanding, CrMS has caused further confusion by changing the BOM Peak Rule to the instruction to resume intercourse "on the 4th day post Peak *always at the end of the day" (Page 136).* It also accounts for the uncertainty in applying the "all day, every day rule" availability of the luteal phase. *P156-157*

Confusion vs Continuum

CrMS

Page 130

Peak-type Mucus

Any mucus discharge that is clear, stretchy or lubricative.

Non-Peak-type mucus

Any mucus discharge that is not clear, stretchy or lubricative.

Comment

These are largely visible observations and ignore vulval slipperiness as felt by the woman not using toilet paper.

There is no mention of the **last lubricative day without visible mucus.**
This is an extremely important observation in pinpointing the Peak of Fertility, especially for the couple having difficulty in conceiving.

Although the diagrams in the text book show the work of Professor Erik Odeblad, including the P mucus, there is no apparent understanding in the text of the significance of this discovery in 1990. Odeblad, E. The Discovery of Different Types of Cervical Mucus and the Billings Ovulation Method, *Bulletin Natural Family Planning Council of Victoria* V.21 (3), 1994. Odeblad, E. Cervical Mucus and their Functions, *Irish College Physicians and Surgeons* 26: 27, 1997.
It is the P mucus which causes the liquefication of the G mucus plug, breaking down this plug so that the woman is immediately aware of a change of sensation at the beginning of the fertile phase. The role of the P mucus closer to the time of ovulation is also of crucial importance. It is the P mucus which unlocks the S crypts, allowing for the release of sperm and aids their transport through the uterus to the fallopian tubes to await ovulation. An intense slippery sensation is produced at the vulva by the increase in P mucus which has combined with the enzyme, Zymogen, from the uterine isthmus to liquefy the L and S mucus thereby removing the strings. This explains why mucus is often not seen at the vulva at Peak but the vulva still feels very slippery. When the progesterone begins to rise this slippery sensation disappears and the woman recognises her Peak and the time of ovulation. see - **CrMS - Page 192**

CrMS

Page 131

Peak Day

"The last day of any mucus discharge that is clear stretchy or lubricative."

A Peak

*"When ovulation is delayed, women may experience a variable return of Peak-type mucus. She may experience several different days that fit the definition of any mucus that is clear, stretchy or lubricative. In situations such as this, ovulation if it occurs at all, is associated with the last Peak Day. This last Peak Day should be referred to as **the** Peak Day. All of the other "Peak-Days" should be referred to as **a** Peak-Day"*

Page 132
*"It is necessary for **the** Peak Day to have passed in order for the instructions that apply to the Post-Peak phase of the cycle to be applicable. If only **a** Peak-Day has passed, the user continues to be pre-Peak and the pre-Peak instructions apply."*

Comment
In defining A Peak and The Peak confusion is caused. At what stage does the woman identify The Peak as the last Peak? How does she know this is the last one?

BOM
The BOM does not suffer this confusion. The BOM teaches women to identify patterns. Her record identifies her vulval sensations and any visible observations. An unchanging pattern is a reflection of infertility. A changing, developing pattern is a reflection of rising oestrogens. When this changing, developing pattern progresses to the slippery sensation experienced at the vulva and then abruptly changes, the woman is able to identify her Peak. She recognises her time of ovulation in this particular cycle. If the BIP is interrupted by a change in sensation, visible mucus or bleeding, the 3rd Early Day Rule is applied. The woman is taught to recognise her Peak. If this does not occur, she knows to wait until the return of the BIP, continue the use of the 3rd Early Day Rule and then apply the alternate evening rule until the next change. The BOM gives the couple security in managing their fertility on a day by day basis without the unnecessary intervention of a teacher.

CrMS
Dr Hilgers by speaking of Peak-type mucus, non Peak-type mucus, Split and Double Peaks and Multiple Peaks injects much confusion.

BOM
Meticulous charting and the hormonal studies of Professor Brown have clarified the variations of ovarian behaviour with confirmation of the Rules which apply to the recorded patterns. The Ovarian Monitor developed by Professor Brown is accurate and has been responsible for studying large numbers of women who can make the necessary tests themselves. Much valuable information has been accumulated as a result leading to an exposition of the **Continuum** of ovarian activity in all circumstances of reproductive life. This has verified the BOM instructions that the same rules can be applied confidently to all conditions of normal and variant reproductive life. (Refer "Studies on Human Reproduction" Page 17 Professor Emeritus J B Brown)

The clear understanding of the normal enables the woman and teacher to detect any abnormality needing attention and indicating referral to the appropriate specialist.

Of particular importance has been the elucidation of the hormonal conditions responsible for infertility leading to a high percentage of success in its correction.

Infertility – Hormonal Abnormality
Professor Brown explains the behaviour of the Luteinizing Hormone LH and its role in ovulation, corpus luteum formation and fertility.

- An absence of LH results in failure to ovulate. There will be no progesterone and no Peak. The woman is infertile. Early Day Rules continue for avoidance of pregnancy if so desired.
- There may be sufficient LH to cause some luteinization of the follicle but not enough to cause ovulation. This is the Luteinized Unruptured Follicle (LUF). There is a little progesterone and no clear Peak. The symptoms are "fuzzy". The woman is infertile. She may or may not bleed following a LUF. Early Day Rules continue for avoidance of pregnancy
- There may be sufficient LH to cause luteinization and ovulation but not enough for adequate corpus luteum formation resulting in luteal phase deficiencies. Progesterone rise will define the Peak. The Peak Rule for the avoidance of pregnancy is applied. The woman is infertile if the luteal phase hormones are low or if menstruation follows ovulation in less than 10 days.

Professor Brown explains in his monograph how the cycle matures from menarche through all the variants to cessation of ovulation and menopause. This is a continuum of ovarian activity, a continuous gradation of events from one to the other. The Rules of the BOM are always applicable throughout all stages of reproductive life.

Luteal Phase

Following the Peak there is a wide variety of discharges including seminal fluid experienced by individual women. From the 4th day past Peak these are all recorded with a plain yellow stamp and this indicates infertility because the ovum is dead. The mucus with fertile characteristics which sometimes precedes menstruation is due to the fall of progesterone ahead of oestrogen. It is a cervical response to the oestrogen (Odeblad). It is recorded with a plain yellow stamp indicating infertility.

CrMS

P121 *"Pasty cloudy" mucus in the luteal phase is said to be of vaginal origin. The charting is "converted" to plain green stamps to record this discharge.*

P156-157

Restrictions for intercourse apply Post-Peak for first three cycles.
(See - instructions for Post-Peak/Non-Peak Mucus and Spotting).

BOM

If the woman sees nothing, feels nothing and is dry, she records this with a plain green stamp. All discharge is recorded with a plain yellow stamp from day 4 in the luteal phase, signifying infertility. Discharges of vaginal origin vary and often are wet and profuse, particularly following contraceptive medication when the lower vagina is damaged. NB Pockets of Shaw (Odeblad). The discharge is not confined to the luteal phase. The first time the Peak is identified, the Peak Rule is applied. Peak is usually identified in the first cycle of charting. WHO trial El Salvador (1977-1981),98% recognized Peak in the first cycle of charting. Published: *Fertility and Sterility 1981 Vol. 36, p. 152ff, 1981 Vol. 36, p. 591ff.*

CrMS
Following a study of 24 subjects over 73 menstrual cycles, the length of the luteal phase is defined as "average length 13 days with a range of 9-17" ***Page 429***

BOM
BOM states the length of the luteal phase in a fertile cycle is 11-16 days as confirmed by the studies of Professor James Brown.

Anovular Bleeding

CrMS
Anovular cycle (the term used in CrMS) is a text book term named long ago before there was a proper understanding of the ovarian hormones and ovulation.

BOM
Anovular Bleeding (BOM terminology)

BOM
In 1953, when Dr Billings began to investigate Natural Fertility Regulation, the only method known was the Calendar Rhythm Method where the emphasis was on bleeding in the cycle and calculations were made from this marker to determine fertility. All bleeding was considered by many to be menstruation. "Counting days" from bleeding was an unreliable method of avoiding conception. The scientists, Ogino and Knaus by different ways demonstrated that ovulation was a one-day event in the cycle and always was followed 2 weeks later by menstruation. The BOM came into existence when the biomarker cervical mucus was found to be recognisable by the woman herself and the method was called the Ovulation Method to draw attention away from the bleeding to ovulation. This immediately defined menstruation as the inevitable bleeding which occurred 2 weeks after the fertile phase when ovulation occurred. Any other bleeding occurring before ovulation was not caused by ovulation and was therefore called anovular bleeding. Professor Brown soon demonstrated this bleeding to be in response to fluctuating oestrogens without ovulation.

- Following the knowledge that ovulation is always followed by menstruation unless pregnancy intervenes, BOM charting recognises episodes of bleeding which are not preceded by ovulation but which accompany:
  high oestrogens - "Breakthrough" bleeding
  or
  occurring from a fall after a raised oestrogen level - "Withdrawal bleeding"

Unexplained bleeding must be referred for specialist management.

The BOM:

- emphasises Cyclic Fertility and its marker the Peak.
- emphasises the pre-ovulatory events as anovular. Ovulation has not occurred so changes from BIP are anovular, e.g. anovular bleeding (not menstruation).
- emphasises the recognition of the Basic Infertile Pattern (BIP) as a pre-ovulatory event (with an oestrogen responsive cervix). When the cervix is unresponsive to raised oestrogens, due to ageing of the cervix, or damage following contraceptive medication, it produces no mucus and therefore the BIP continues throughout

ovulation. The woman is infertile because there is no mucus to sustain the sperm.

- emphasises the recognition of bleeding not preceded by Peak as anovular bleeding (not cyclic).
- emphasises episodes of changes in the discharge from BIP are responses to raised oestrogens, and, if they display no Peak and return to the BIP are anovular.
- manages the BIP, with its changes, by the Early Day Rules. There are 3.

The Early Day Rules

Rule 1. Avoid intercourse on days of heavy bleeding during menstruation.

Rule 2 Alternate evenings are available for intercourse when these days have been recognised as infertile. (Basic Infertile Pattern).

Rule 3. Avoid intercourse on any day of discharge or bleeding which interrupts the Basic Infertile Pattern. Allow 3 days of Basic Infertile Pattern afterwards before intercourse is resumed on the 4th evening. Rule 2 continues.

Breastfeeding

The time of infertility during breastfeeding is variable. Some women return to normal cycles within 6 weeks of delivery even while fully breastfeeding. Others may be infertile for many months.

CrMS

Page 144 "The couple should consider the first 8 weeks of total breastfeeding infertile. The avoidance of genital contact is necessary only during post partum bleeding. During this 56 days the couple should consider themselves infertile regardless of what pattern of mucus is observed".

"If partially breastfeeding the first 8 weeks are not considered infertile and they must avoid genital contact for one month to learn the mucus sign with confidence."

BOM.

Breastfeeding is an excellent opportunity to learn the pattern of infertility and Early Day Rules. If the woman is not dry two weeks of charting in the absence of bleeding will reveal whether she has a BIP of Discharge or whether fertility is attempting to return. Early Day Rules are applied to the BIP. Any change should be governed by the 3rd Early Day Rule. The change may be a colour change caused by slight bleeding – yellow, brown, red. Sensation at the vulva is an essential observation, also alertness to vulval swelling and tenderness of the inguinal gland on the side of the ovulating ovary.

Breastfeeding occurs at a woman's age of high fertility. The mucus symptoms are sometimes reduced at this time and fertility may be recognised as a minimal change from the BIP. The role of prolactin which follows the feeding patterns of the baby play a significant role in the mucus patterns.

Conclusion

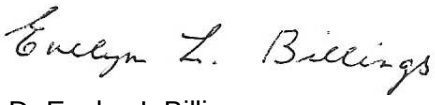
P171 *Dr Hilgers states: "Because the CrMS focuses on the ability of couples to know when they are fertile and not fertile in a given cycle, it opens up a whole new capability that has not been available to married couples really in the history of the world".*

There is clear evidence to the contrary.
In 1953, when Dr John Billings and Fr Maurice Catarinich first began their clinical studies and the Billings Ovulation Method was being developed, the recognition that the woman could identify her time of fertility and infertility was identified. Generous couples who participated in this early research were the benefactors of this new capability. BOM users have had the benefit of this discovery for over 50 years. The later validation through scientific studies only confirmed what was already being practised. CrMS did not "open up a whole new capability".

The single most destructive change made to the BOM by CrMS was to the observations and interpretations of the cervical mucus.
The cervical mucus is not only a marker of fertility. It is fertility. The woman can feel its presence and knows by sensation at the vulva when it is not present. This is a very simple feeling of fertility and infertility. This is a Subjective symptom natural to the woman. The mucus should not be tested and made an Objective sign by toilet paper and fingers. This practice is the basis of the standardization claimed by CrMS. It is not superior. It loses much in simplicity and accuracy by ignoring the subjective appreciation of the fertile sign.

It is regrettable that this critique should have become necessary because WOOMB International agrees with Dr Hilgers in fundamental principles of the Natural Law, which sets us both in opposition to the Culture of Death philosophy and firmly in accordance with the Magisterial Teachings of the Catholic Church.

This commentary has been written in order to clarify the differences between methodologies so that couples wishing to choose a method of natural fertility regulation will have a good understanding of the facts.



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ADDENDUM

THE FERTILITY ABSOLUTES

The Significance of 750,000 Hormone Assays

Professor-Emeritus James B Brown
April, 2006

The results of 750,000 hormone assays have been obtained in collaboration with colleagues and reported in more than 220 publications in refereed journals and chapters of books. This is equivalent to one publication every two months for nearly 40 years!

I have been involved in practically every advance in reproduction between 1950 and 1990, including the development of methods for monitoring ovarian and placental function; development and testing of the contraceptive pill; timing of ovulation; safe use of gonadotrophins; significance of hormones in cancers of the breast, ovary and uterus; timing of egg pick-up and the use of gonadotrophins for this in IVF; the use of ultrasound and the application of the knowledge gained to Natural Family Planning. This represents a life-time of discovery and I have much more to publish. These 750,000 assays do not include the many thousands applied as a placental function test in late pregnancy: I have supervised their performance and interpretation and my assistants have always referred any new and unusual results to me.

The 750,000 assays were mainly daily urinary oestrogen and pregnanediol measurements throughout at least 12,000 menstrual cycles. From the results we can state some absolute findings about fertility in that we have never seen deviations from these absolutes in this sample. This does not imply that they never occur: all acts of sexual contact carry the possibility of pregnancy and no avoidance system is absolute, but their incidence is so low that they would be ignored by all methods of family planning. Furthermore, by working in both pregnancy achievement and avoidance, it is possible to check the reality of an infertility factor, for example the deficient luteal phase, by showing that correcting it greatly increases the chances of achieving pregnancy.

The Fertility Absolutes:

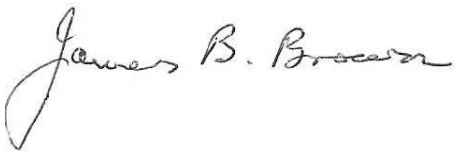
1. Fertility involves very definite cyclical activity. The changes occur with such rapidity, particularly at the crucial stage of ovulation, that at least daily observations are required to monitor them adequately. This is readily achieved by the mucus symptoms used by the Billings Ovulation Method (BOM) and by urinary hormone assays. It is a practical impossibility to use blood assays or ultrasonography routinely instead for large numbers. Observations that are the same day after day prove infertility throughout the time of no change. This defines the Basic Infertile Pattern (BIP). The woman will recognize any change in the BIP to alert her to a return to potential fertility.

2. Ovulation capable of producing a pregnancy occurs at one time only during a menstrual cycle. A very reliable mechanism operates to detect a faulty follicle and if necessary replaces it by a better one, but once a follicle ovulates, ovulation of further follicles during that cycle is positively inhibited. This inhibitory process takes a short time to operate and during this time it is possible for several exactly

synchronized follicles to ovulate and thus produce a multiple pregnancy.

3. A continuing pregnancy is the absolute proof that a fertile ovulation has occurred. Demonstrating that the post-ovulatory rise in progesterone production has occurred is the next best proof of ovulation. However, the current use of a day 21 blood progesterone measurement is totally inadequate for this purpose. Daily assays of progesterone production, for example by daily urinary pregnanediol measurements, are necessary to ensure that ovulation and the progesterone rise are properly timed. The levels reached provide information on the adequacy of the resulting corpus luteum. The inadequate corpus luteum is the most common infertile cycle variant, it affects the clarity of the Peak symptom and it needs serial progesterone assays for at least six days after ovulation for its diagnosis. The length of the luteal phase for fertility is 11-16 days. Inadequate and short luteal phases are encountered in approximately 10% of apparently normal menstrual cycles, they are usually sporadic and interspersed with normal cycles and are the main cause of unexplained infertility. When persistent they are readily corrected by giving clomiphene.

4. Bleeding always follows ovulation provided the woman is not pregnant and has a uterine endometrium responsive to hormone stimulation. Bleeding may or may not follow anovulatory ovarian activity or a luteinised unruptured follicle (LUF).



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Some Clarifications Concerning NaProTECHNOLOGY and the Billings Ovulation Method. (BOM)

Dr Evelyn L Billings
Dr John J Billings
April, 2006

Summary

This commentary is principally concerned with the Billings Ovulation Method of fertility regulation and the Creighton Model of Fertility Care System which is the fertility regulation part of Naprotechnology. The TECHNOLOGY refers to specialized medical and surgical services which may be required.

The BOM was recognized as a valuable diagnostic tool in women's reproductive health from early days (1953) of the development of the BOM, thus enabling women to detect any departure from the normal and to seek speedy assistance from appropriate specialists. The BOM provides courses for doctors to work with accredited teachers and gradually the value of the BOM is becoming very much appreciated by the medical profession who refer couples for the regulation of fertility and the alleviation of childlessness with ever-increasing frequency.

Dr Hilgers in his text book entitled "Medical and Surgical Practice of NaProTECHNOLOGY", *Pope Paul VI Institiute Press, Omaha Nebraska, July 2004* acknowledges that he began his research with the BOM in 1976 and set about changing it to make the Creighton Model of Family Care System (CrMS), stating that this was a modification of the BOM.

- *He claims to have standardized the BOM system by changing the method of making observations of discharges at the vulva, introducing a new system of recording, and altering the rules.*

- *At the same time he has retained the BOM charts, the coloured stickers but with changed meanings, even the BOM circular diagram. This has all led to much confusion for couples who think BOM & CrMS are the same. They are not and the two methods should be kept separate.*

In the BOM the observations (not interpretations) are recorded on a chart with coloured stamps or international symbols, each with a specific meaning. The interpretations of infertility and fertility are made according to the mucus patterns which reliably follow the hormonal patterns as shown by Professor Brown over 53 years and 750,000 assays.

This change in the BOM charting system is most confusing for those who do not know the methods well.

- *Dr Hilgers has introduced a routine of wiping with toilet paper at set times, of testing any discharge with fingers, and ascertaining the slippery sensation by wiping the vulva with toilet paper, judging slipperiness by how it glides over the vulva.*

In BOM the observations are made as the woman goes about her ordinary activities. She is taught to pay attention to sensations at the vulva and will readily tune in to her own experiences of dryness, no longer dry, slippery, sticky, etc. She is alerted by sensation to something being present at the vulva which may or may not be seen.

Under each symbol on the chart she writes a word or two of her own, choosing to describe the discharge felt and seen at the vulva. She describes the facts faithfully. She knows they are accurate and therefore that the rules will apply precisely. She can then assess from day today her infertility on that day or her possible fertility.

- *In CrMS a picture dictionary is provided to assist the woman to decide which sample fits the code. If not exact, then the nearest will be selected and recorded*

There may be room for an error of judgment by the woman here in finding her own picture. She may select the "nearest". She will not always find the picture of the discharge which fits her observation. Ignoring how the vulva feels at that time is an important omission.

- *CrMS instructs a woman to urinate after intercourse within one hour, and then expel seminal fluid, wiping until dry. She employs Kegel's exercises, and bears down.*

This is unnatural.

The day after intercourse the woman often experiences a discharge of seminal fluid. In the BOM this is recorded, described and that day avoided for intercourse. If the next day is a day of BIP, the evening is available. This rule for the early days of the cycle is "alternate evenings of the BIP are available for intercourse" if the choice is to avoid conception.

- *CrMS ignores the change from dry to damp and records it with a plain green stamp.*

BOM regards this day as the first point of change, reflecting a rise in oestrogen and the beginning of possible fertility. It is recorded with a white baby stamp,

- *Dr Hilgers talks of Peak-type mucus and non-Peak-type mucus.*

He does not take into account the fact that there may be no visible mucus at the Peak.

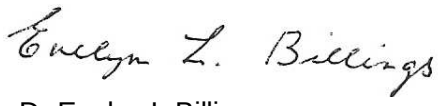
- *He regards the changing of the <u>subjective observation of mucus by the woman</u> to the objective technique of toilet paper/fingers and picture dictionary, as an improvement, resulting in Split Peaks, Double and Multiple Peaks when there is <u>only one Peak.</u>*

In the effort to standardize the BOM a most destructive departure from the BOM has occurred, The BOM Peak must be clearly understood. It is defined as "the last day of the slippery sensation". There is no wetness or slipperiness after the Peak. The Peak was named and defined in the 1960s. Progesterone from the developing corpus luteum produces a complex series of events which results in a Peak.

- *Dr Hilgers maintains that ovulation occurs Peak -3 days through Peak + 3 days.*

  This points to an error in identifying the Peak. Long years of hormonal and cervical studies have shown ovulation occurs on Peak or the day after and rarely on Day 2 past Peak.

The authentic BOM stands alone with <u>specific instructions and rules.</u> The methods are fundamentally different and should be kept separate. We object emphatically to the changes made to the BOM by Dr Hilgers in his textbook. They reveal a deep non-understanding of the Billings Ovulation Method. There was no consultation with us to modify or standardize the "Billings Method". The result has been destructive and confusing to many couples. The BOM remains as described in the authentic WOOMB literature – not as modified by Dr Hilgers.



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