NATURAL, SCIENTIFIC AND HIGHLY EFFECTIVE TREATMENT FOR INFERTILITY

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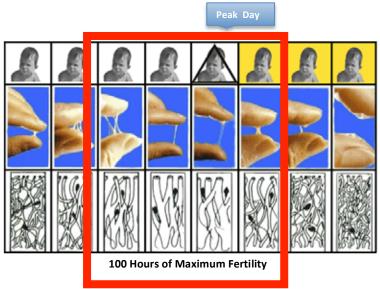


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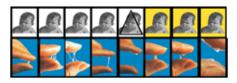
Introduction

The Ovulation Method (OM) is based on teaching women to be aware and recognize the unique properties of a natural secretion that she produces every cycle throughout her reproductive years. The presence of this secretion signals fertility and it is also essential for the nourishment, survival and protection of the sperm for the achievement of conception. Abstinence when this secretion is present is a very simple and effective way of postponing pregnancy naturally. It is also very effective for helping couples achieve pregnancy by recognizing the peak of their fertility.

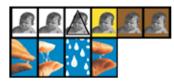


The reproductive years in a woman's life seem to be age dependent on when ovulatory ovarian activity takes place. At the age of about 20 years, the average time for fertile mucus secretion is about 4-5 days, while at 35 years; the average time is only about 1-2 days. Pregnancy can only result from an act of intercourse during the woman's approximately 100 hours of fertility when the pre-ovulatory mucus is most receptive to sperm penetration.

Normal fertility of younger woman



Fertility diminishes with age



The ovarian hormones regulate the secretion of cervical mucus. As a result, the components of the cervical mucus change markedly during the cycle, reflecting the preponderance of estrogens or progesterone.

Scientific Verification of the Ovulation Method

Much of the early key research into the Ovulation Method was carried out by Dr. James B. Brown. In 1962, Dr. John Billings asked Dr. Brown to conduct hormonal studies to correlate the accuracy of women's observations of the cervical mucus patterns associated with ovulation.

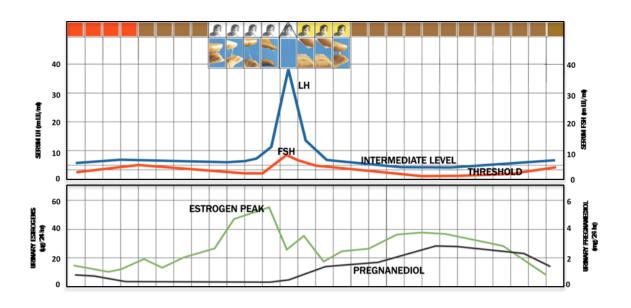
Dr. Brown's research showed that the development of the mucus symptom coincided with the estrogen levels in the follicular cycle much better than any other symptom accompanying ovulation; it also helped establish the relationship between estrogen and progesterone, the cervical mucus changes and ovulation.

While Dr. Brown worked on estrogen and progesterone, his colleague, Dr. Henry Burger, an endocrinologist at Monash University in Melbourne, worked on the other hormones which regulate the menstrual cycle: Follicle Stimulating Hormone (FSH) which stimulates the development of the follicle containing the ovum; and Luteinizing Hormone (LH) which triggers ovulation. ¹

The work of Drs. Billings, Brown and Burger relating hormonal changes to the mucus symptom was first published in a British medical journal, the Lancet, in 1972.²

The stradiol peak occurs about thirty-seven hours before ovulation. The LH level beings to rise about thirty to forty hours before ovulation, reaching a peak about seventeen hours before the ovum is released.³

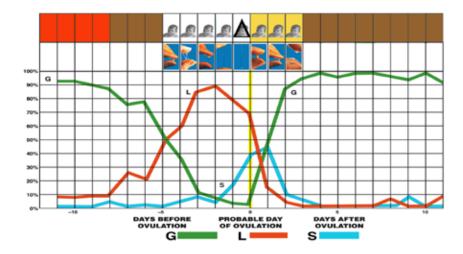
The results of 750,000 hormone assays were obtained by Dr. Brown in collaboration with colleagues and reported in more than 220 publications in referred journals and chapters of books. The 750,000 assays were mainly daily urinary estrogen and pregnanediol measurements throughout at least 12,000 menstrual cycles. ⁴



The Biophysicial Properties of the Cervical Secretion

The structure and function of the mucus and its relation to fertility and infertility have been most thoroughly investigated by Dr. Erik Odeblad and his colleagues at the University of Umeå in Sweden.

Elevation of Hormones Coinciding with Cervical Secretions in a Menstrual Cycle **S**, L, G and P Cervical Mucus.



The key to nearly all the present research was the discovery, first published in 1977, that there are four types of cervical mucus, S, L, G and P mucus.

There are approximately 400 mucus-secreting glandular-like units (crypts) in the cervical canal, which produce mucus at the rate of 20 to 60 mg per day in normal women of reproductive age. During mid-cycle, the amount increases tenfold and may reach up to 700 mg per day.

Each sample of mucus is always a combination of the four different types, but one predominates.

The G Mucus

The function of the G Mucus is to seal the cervical canal during the infertile days of the cycle. It is present in one variety immediately after menstruation, in another during the post-ovulatory phase of the cycle, and probably in a third during pregnancy.



G Type Mucus



G Mucus does not allow entrance to the cervix

Type G mucus is thick and sticky and it forms a mechanical and immunological barrier, or plug in the cervix during the infertile period.

However, the recently discovered P type mucus seems to degrade and dissolve the G mucus giving space for L and S mucus during the fertile phase.

The L Mucus

The L mucus, the first fertile mucus symptom of the cycle is a soft, mucinous secretion that turns into a slippery, watery secretion a few days before ovulation when S type mucus is produced.





L Type Mucus

L Mucus allows entrance to the

Type L (Loaf) mucus is a soft translucent gel, that becomes a little bit more elastic. It helps sperm climb up to the uterus and it also acts as a filter in which immature, aged or otherwise abnormal sperm cells are prevented from entering the uterine cavity. ⁵

The S Mucus

The S mucus, the sperm receptive mucus, provides low viscosity channels for the sperm by which they gain access into the cervix and uterine cavity. A certain balance between the S and L secretion seems to be necessary for optimum fertility.





S Type Mucus

S Mucus allows entrance to the

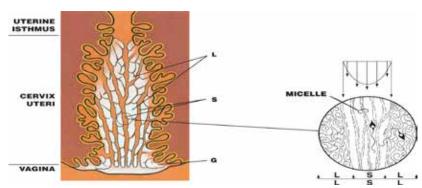
Type S (String) mucus is a clear, stretchy, slippery and watery cervical mucus discharge. Women feel the sensation of wetness and lubrication, as the mucus becomes up to 98 percent water.

The S secretion composes approximately 30 percent of mid-cycle mucus and the L secretion 70 percent.

Professor Odeblad states that it is best to have 25 percent of S type mucus at ovulation time since sperm need L type mucus for direction. Some women who have difficulty conceiving

may be producing too much S type mucus at ovulation time and sperm do not know where to swim.⁶

We know from Professor Odeblad's latest research that P6 mucus most probably is responsible for the Peak Day sensation of slipperiness that a woman feels.⁷



The Cervix is as Specialized as the Eye, Ear, and Nose

On the left we see a string of S mucus, the flow of secretion being indicated by arrows. This flow orients the mucin molecules. Then they interact and form micelles. One sperm is directed to swim upwards. Another sperm, morphologically defective by angulation, is liable to deviate towards the borderline of the S string, and finally it enters the L mucus and becomes captured. The ellipsoid units of L mucus provide the mechanical framework for the fluid S mucus and act as a trapping mechanism for sperm, which are presumably not suitable for conception. 8

S Mucus is the sperm conducting vehicle. The L mucus which surrounds S mucus strings catches "low-quality" sperm, while "high-quality" sperm reach the highest part of the cervix where they meet the newly discovered P6 type mucus which probably makes an extra selection of sperm. Of the 100 million sperm in the vagina after an ejaculate, only a few are "well-suited" as all sperm are different and unique. Only 10 percent make it into the cervix, and 1 percent go up further.

Studies on the dose-response curve for the L and S mucus on estrogenic stimulation indicate that the L mucus requires only low doses of estrogen in circulating blood, while the S mucus requires higher levels. This finding easily explains why L mucus occurs before the S mucus in the normal cycle.

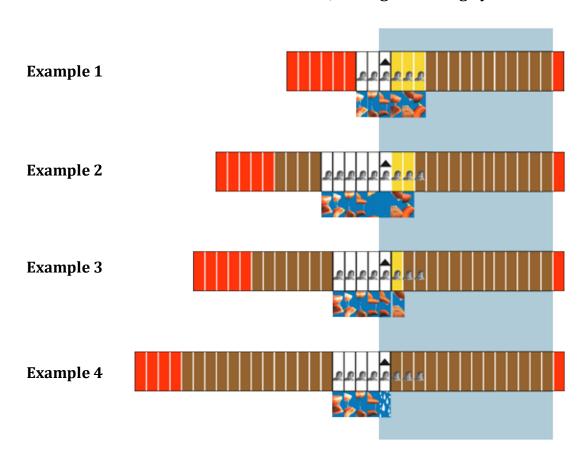
The anatomy of the mucus mosaic is such that some sperm swim to the uterine cavity, but most move to the S secreting crypts in which they seem to hibernate and form a sperm reservoir with a half time of about 18 hours, but some can stay up to two days before they are ready to continue their journey up the uterine cavity. Some women notice a reduction in the amount of mucus after marital intercourse during the fertile phase possibly because the crypts are full of sperm and not secreting mucus. There is only room for about 100 sperm per S crypt. There is a greater amount of mucus two days before ovulation. Wetness increases in the beginning of the fertile phase when cervical mucus appears and it decreases with stretchy mucus and then it increases with slippery P6 type mucus. 11

Cyclic alterations in the consistency of cervical mucus influence sperm penetrability, nutrition, and survival. Optimal changes of cervical mucus properties, such as greatest increase in quantity, spinnbarkeit, ferning and pH, and decrease in viscosity and cell content, occur immediately prior to ovulation, and are reversed after ovulation.

Regularity of Cycles NOT Required

Unlike the old Rhythm Method, the Ovulation Method does not require regularity of cycles to be successful. The signs of fertility will inform the woman of the approaching fertility when it comes early as Example 1 or when it comes late as in Example 4. What is fairly consistent is the fact that from the Peak of fertility to the next menstrual flow it is approximately two weeks. There can be a variation of 11 to 16 days. If bleeding appears prior to 11 days it is probably an anovulatory cycle as Dr. James Brown discovered throughout his innumerable assays. If bleeding does not appear after 16 days from Peak Day, the woman is probably pregnant. ¹²

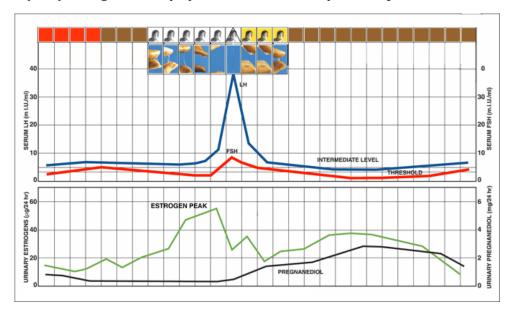
Actual Charts of Women with Short, Average and Long Cycles



Variants of the Menstrual Cycle 13

When there is a Normal Menstrual Cycle

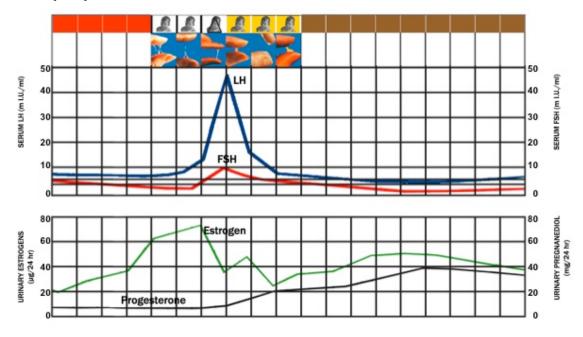
According to Dr. James Brown, many variants of the 28-day ovulatory cycle may occur. Ovulatory cycles as short as 19 days are due to very early rising of Follicle Stimulating Hormone (FSH). Long ovulatory cycles are due to delayed FSH production.



This is an average graph of normal hormonal levels that elevate in the middle of a woman's cycle.

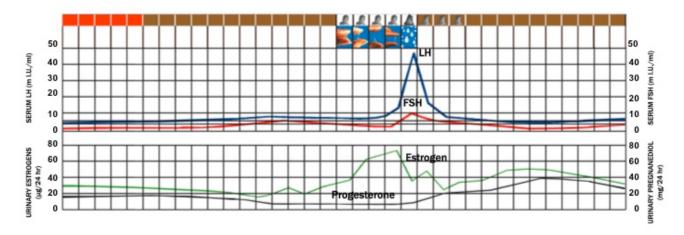
When There is an Early Rise of the FSH Hormone

Ovulatory cycles as short as 19 days are due to very early rising of the Follicle Stimulating Hormone (FSH).



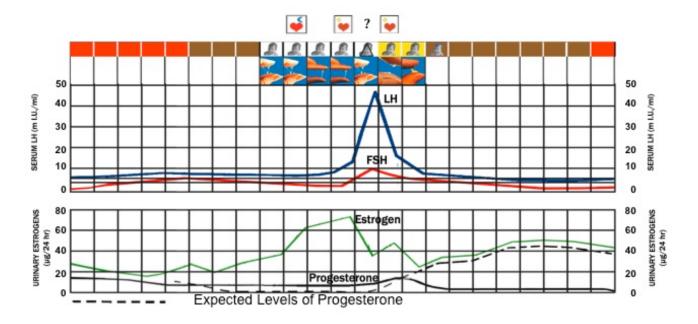
When Delayed FSH Production Causes a Cycle to be Long

When ovarian activity is absent and no estrogen is being produced there is usually no discharge and the feeling is one of dryness (brown stamps) which persists during the period of inactivity. Long ovulatory cycles are due to delayed FSH production. This delay can be due to illness, medication, stress, poor nutrition, etc.



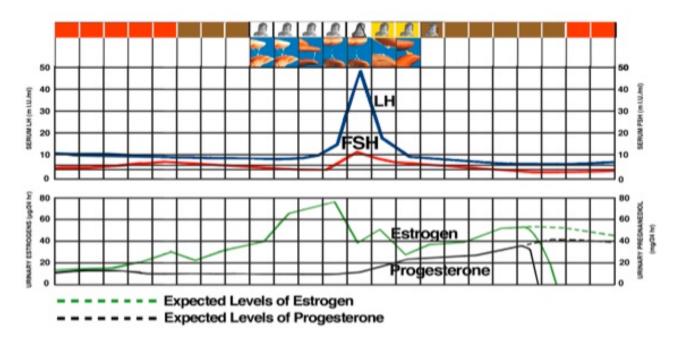
When Insufficient Progesterone Levels Fail to Support Pregnancy

In this variant, the Luteinizing Hormone (LH) surge is sufficient to cause ovulation, but not enough to support the pregnancy because the progesterone rise did not reach the necessary level to support a pregnancy; this is called "Deficient Luteal Phase". Often women do not recognize a clear Peak Day.



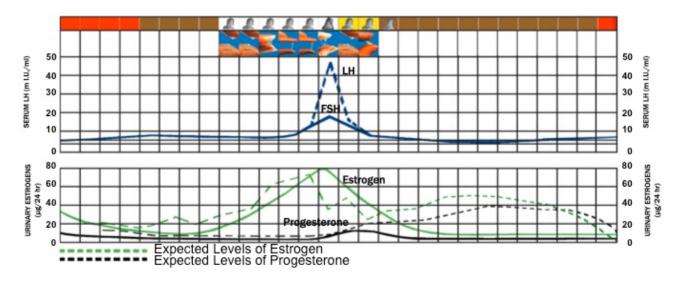
When Progesterone Levels Fall Prematurely

When progesterone levels reach normal post-ovulatory values, but fall prematurely so that bleeding occurs 11 days or less after ovulation, it is called a "Short Luteal Phase". It is recognized by the woman when she experiences a shortened interval between the Peak Day and menstruation. This could be caused by lack of healthy nutrition and vitamins.



When Anovulatory Cycles Occur

An Anovulatory Cycle is when the follicle develops, but does not progress to ovulation. There is production of estrogen which later decreases. Depending on the amount of estrogen produced and the sensitivity of the endometrium. The decreasing estrogen levels may or may not produce bleeding (withdrawal bleeding). There may be fertile days that may not progress to Peak Day because there was no ovulation.



Implementing the Discovery

As God allows us to discover the mysterious functions of the reproductive organs within the human body, we are able to present our experience in helping couples who have been having difficulty conceiving a child. Helping couples conceive a baby has been successful in a variety of cultural levels already, but this paper is specifically dedicated to emphasize the incredible success obtained among low income married couples who are financially unable to obtain highly sophisticated medical services and have received emphasis on nutrition, the health of the mother and supplementary vitamins.

The couple themselves, without costly medical intervention, can correct the most common reasons for infertility. These simple guidelines in many cases will prevent having to introduce foreign chemicals into the woman's body to artificially stimulate ovulation or regulate her cycles. Often a well-balanced nutritional diet, supplementary vitamins and reducing anxiety will naturally correct the woman's infertility.

It is important to recognize that medical intervention is necessary in cases such as blockage of the Fallopian tubes, or the woman is suffering from endometriosis or other infections that may be caused by sexually transmitted diseases in order to be successful when trying to conceive.

The Most Common Reasons for Infertility

For Women

There are certain situations in a woman's life that impede the required level of estrogen from elevating to the necessary threshold level for ovulation to occur. They are the following:

- 1. Excessive exercise.
- 2. Excessive work.
- 3. Stress due to anxiety to become pregnant.
- 4. Overweight.
- 5. Underweight.
- 6. Poor nutrition.

For Men

Low sperm count is a major contributor to infertility. It may be due to:

- 1. High temperature working conditions.
- 2. Extremely hot baths or showers.
- 3. Close fitting underwear.
- 4. Certain drugs and medications can affect fertility
- 5. Prolonged use of recreational drugs and alcohol may impair the quality of sperm.

If the Poor Can Be Successful, It Can Be Applied to Anyone Anywhere

During His short years in public life, Our Lord gave us constant reminders of His love for the poor. He cured them, fed them, taught them and we could even say He gave them preferential treatment in so far as kindness and generosity is concerned. It stands to reason and logic that God in His wisdom and fairness would not have ignored the cry of the poor as they also encounter difficulties conceiving. Infertility could be due to the lack of adequate nutrition,

overweight or underweight, or from having used artificial methods of birth control or from having been sterilized, willingly or not.

Couples from low income brackets, particularly in the cities of poor nations around the world are not informed of the serious side effects of artificial methods of birth control, and its abortifacient effect. Prolonged use often destroys temporarily and sometimes permanently, women's precious gift of fertility.

We live in such contradictory times, first couples pay or if you are poor, they are persuaded to have their gift of procreation and fertility destroyed for free or at low cost. Then, for whatever reason, convenience, health reasons, or perhaps their anguish for not being able to conceive a baby, they get desperate and are willing to pay any price to achieve what they once rejected – the gift of human life. Others may feel reproach, they repent and feel a strong desire to return to fertility and respect the Natural and Divine Laws. They discontinue using artificial methods, or ask their physician to have their fertility restored if they have been sterilized.

This Research Was Conducted from January 2010 to April 2014

We studied 54 couples from low-income brackets that have had trouble conceiving anywhere from 1 to 12 years. Of the 54 couples, 49 have achieved pregnancy from January 2010 through April 2014. Five couples are still hoping to succeed.

This research has an extraordinary success rate of 90.74%, requiring no cost to the couples except the educational component.

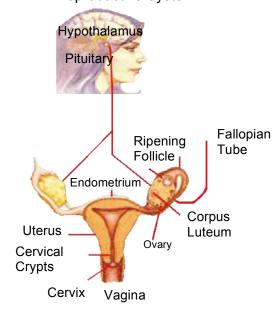
It would be unfair to even imagine that God who is just and kind would ignore those who could not afford the expensive tests that are commonly done on women in rich countries to try to restore their fertility. It is a lesson in humility and a revelation for humanity to realize that the answers to complex problems are often found within our own bodies. If only we listen, learn, and follow, most solutions can be discovered within us without the need of dangerous chemicals or artificial insemination.

Following we present some of the remarkable results of our cases that we have been following for the last four years. The results are worthy of attention by members of the medical profession, particularly those who deal with cases of infertility.

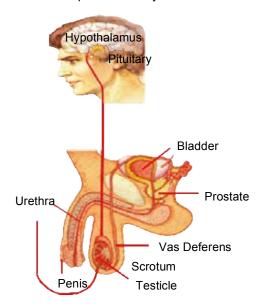
Some of the Educational Materials And Methods Used in The Study

Detailed personal information is gathered from each couple who wishes to practice the Ovulation Method to try to conceive. They are given a class and chart on how to keep daily observations of their cycle in order to continue follow-ups personally or by phone.

Female Anatomy and Physiology of the Reproductive System



Male Anatomy and Physiology of the Reproductive System

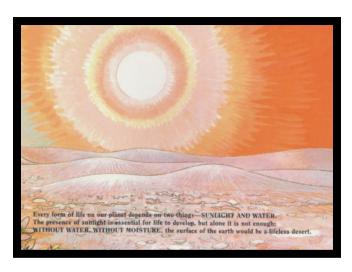


Materials Used In Teaching Associating the Fertility of the Land to the Fertility of the Woman

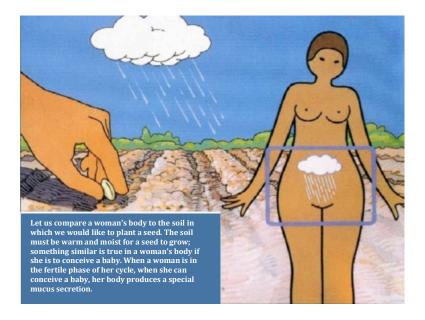


Infertility of the Land

Fertility of the Land

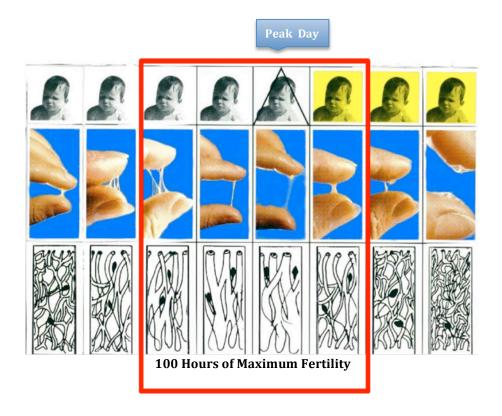


Just Like Mother Nature - is Mother Woman

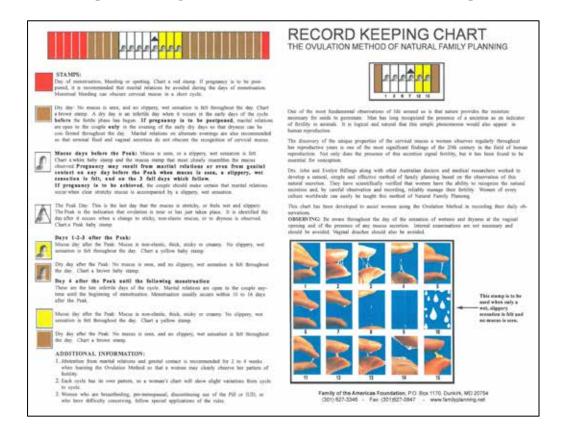


The Ovulation Method is based on teaching women the significance of a natural secretion that appears in the middle of her cycle. They are taught to recognize the days of maximum fertility.

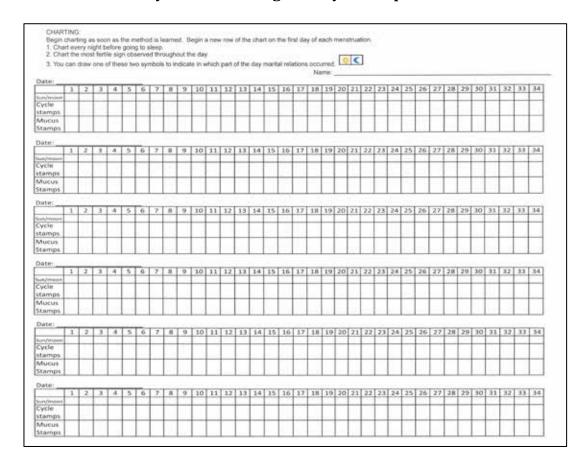
Days of Maximum Fertility



Simple Charting Instructions Given to Low-Income Couples



Six Cycles Chart being used by Participants

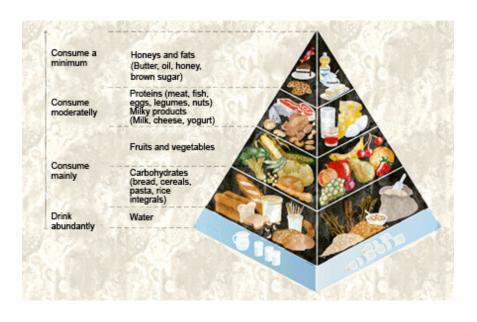


Example of an Actual Chart



The charts are filled with simple color crayons.

Because Overweight or Underweight Affects Fertility, Strong Emphasis is Made to Improve Nutrition and Supplementary Vitamins





(Each country must use the healthy nutritional diet of its population)

Average Age of the 49 Women who Succeeded in Achieving Pregnancy

Never Used Artificial Birth Control	Used Artificial Birth Control	Total
28.42	28.48	28.45
(from 19 to 41	(from 17 to 39	(from 17 to 41
years old)	years old)	years old)

Encouraged by the results of a previous study, following are a few representative cases only from the last four years

Group 1

Cases of couples having trouble conceiving for at least one year who never used artificial methods of birth control

CASE # 101



27 year old woman, who was very depressed as she and her husband had been trying to conceive for seven years. Her height is 5 feet, weight 130 pounds. For that age and height, the ideal weight should be 95 – 110 pounds. She was advised to eat more fruits and vegetables and less fattening foods, as well as multi-vitamins, and moderate exercise to lose some weight.

She started charting February, 2011. In the first cycle, she observed good signs of fertility. On the second cycle she was advised to use the most fertile time of her cycle and she became pregnant for the first time after seven years. She got pregnant in May 2011, but she lost the baby in July 2011 perhaps due to a death of a close family member. She became pregnant again in November 2011. She had her baby in July 2012.

CASE # 104





32 year old woman. Her height is 4 feet 10 inches. Weight 125 pounds. 5 years trying to get pregnant. She had a fever for 8 months due to urinary and vaginal infections that was treated at the public hospital. Our teacher instructed the couple to recognize her fertile signs. She had two normal ovulatory cycles. On the third cycle she did not ovulate because she did not observe mucus of fertile characteristics. On the fourth cycle she had two days of fertile type mucus, but apparently not sufficient quantity to keep her husband's sperm alive. She ovulated again on the fifth, sixth, seventh, eighth and ninth cycles. On the tenth cycle she had patches of fertile and infertile mucus then continued dry for 112 days where she was working extremely hard selling vegetables in the public market and apparently under a lot of stress. She was advised by our teacher to work less, eat a balanced diet and take multi-vitamins including folic acid, and her cycles appeared to normalize.

CASE # 104





On the eleventh and twelfth cycles she had mucus with fertile characteristics, the couple had marital relations at the fertile time and yet, she did not become pregnant. The thirteenth cycle appears to be anovulatory. The fourteenth cycle was normal. The couple had marital relations on the three days with mucus of fertile characteristics and she became pregnant in September 2011. Ultrasound confirmed she was pregnant with a baby boy.

CASE # 107





20 year old woman who became pregnant, but had a miscarriage. She had never used artificial methods. After a year and a half of trying to become pregnant she learned the Ovulation Method from one of our teachers at the hospital and started keeping a chart of her cycle.

From her record keeping chart the teacher noticed that she had a variety of fertile and anovulatory cycles. She was told to improve her nutritional intake and to take multi-vitamins.

CASE # 107





On the fifteenth cycle, the couple decided to try to conceive having marital relations after the Peak Day and became pregnant. Baby was born May 2012.

CASE # 120



36 year-old woman. Height 5.1 feet. Weight, 169 lbs. Married for 6 years, she had a miscarriage during the first year of marriage. She had been trying to get pregnant ever since.

She never used artificial methods of birth control, but she was overweight. Before she learned the Ovulation Method, she had surgery in the cervix because she had a "Naboth cyst" (a cyst that can normally be found on the surface of the cervix). She was under a lot of stress because she thought, after this surgery; she would not be able to get pregnant, which might have affected her first cycles. She was advised to eat well to lose weight and take supplementary vitamins and folic acid.

During the 6th cycle using the Ovulation Method, she had relations everyday she observed cervical mucus until a day after the Peak Day. She became pregnant and her baby boy was born September 2012.

Group 2

Cases of couples having trouble conceiving for at least one year, after having used artificial methods of birth control

CASE # 203

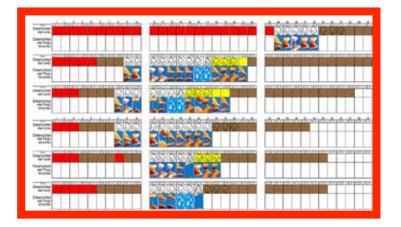


33 year old woman, trying to become pregnant for 12 years. She took medication for cysts and eventually she needed to have surgery. She still had not achieved pregnancy. She worked very hard, 7 days a week and she was 20 pounds overweight. She was told to lose weight, eat healthy food and take supplementary vitamins.

On the first cycle she appeared to have normal fertility, but judging by the post-ovulatory phase it was an anovulatory cycle even though they had marital relations during the fertile phase of the cycle. According to Professor Brown, a post-ovulatory phase of less than 11 days is not a fertile cycle, because there is not enough endometrial growth to sustain a pregnancy.

On the second cycle the couple had marital relations on the most fertile time and pregnancy was confirmed.

CASE # 211





33 year old woman, with 2 miscarriages, the last one in 2008. She was given the three month Depo-Provera injection after miscarriages, an unfortunate medical procedure. She had been trying to conceive for two years. Please note the 23 days of bleeding due to the Depo-Provera injection she was given after the last miscarriage. Because the poor are humble, they are afraid to question the recommendation of the doctors who often do not instruct them on the serious side effects of such dangerous chemicals of birth control. She was instructed by our teacher not to have any more injections as they could damage her future fertility. She was also asked to wait a few months so that the effects of the injection may be expelled from her body. She was asked to take vitamins and have good nutritional intake.

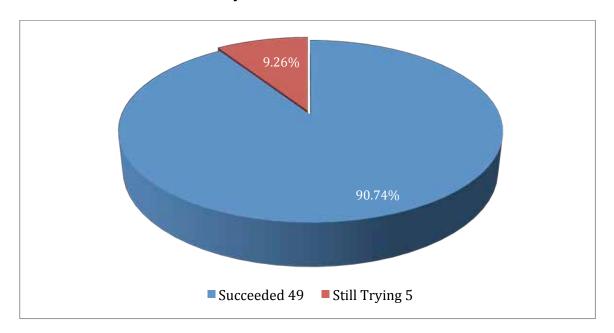
CASE # 211



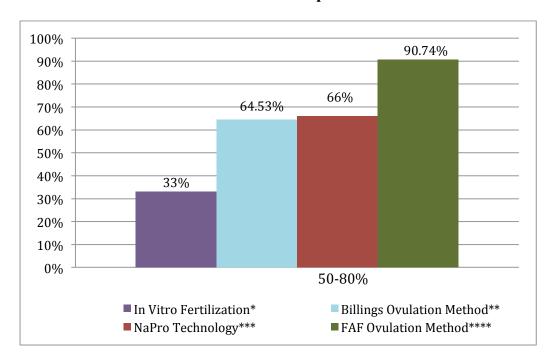


She conceived on the twelfth cycle. A baby girl was born nine months later.

Four-Year Study of 54 Cases - Success Rate 90.74%



Success Rate Comparison



^{*} American Pregnancy Association - http://www.americanpregnancy.org/infertility/ivf.html

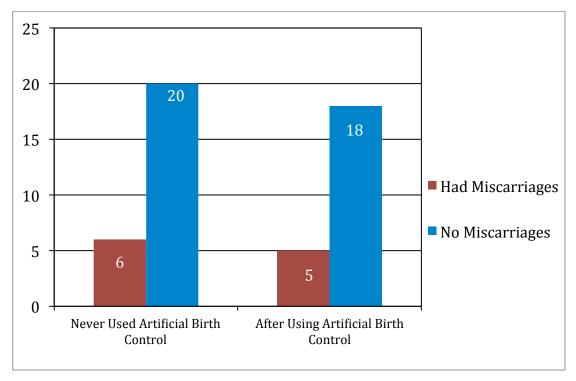
^{**} Study conducted by Research Team of Ovulation Method Research and Reference Centre of Australia Ltd.

⁻ http://www.thebillingsovulationmethod.org/es/how-effective-is-the-billings-ovulation-method%E2%84%A2/success-in-achieving-pregnancy.html

^{***} Fertility Care - http://www.fertilitycare.ie

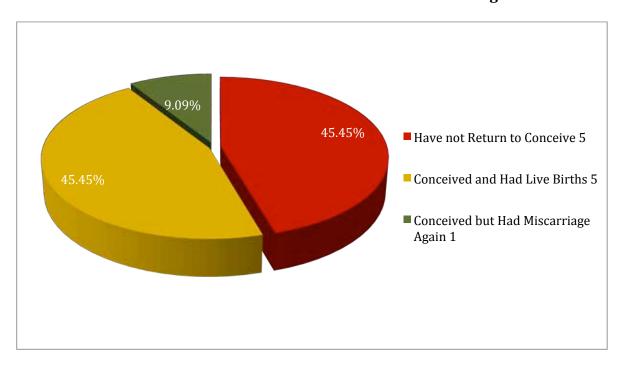
^{****} Estudio realizado en Guatemala por la Asociación Familia de las Américas - https://www.familyplanning.net/sites/default/files/Libros/achieving_pregnancy_guatemala.pdf

Statistics on Miscarriages



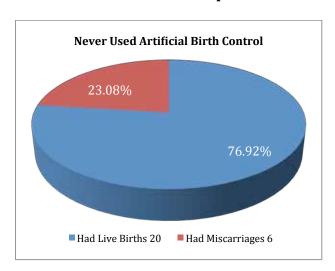
- Cases 101, 103, 109, 111, 121 and 129 had miscarriages.
- Cases 201, 202, 214, 220 and 221 had miscarriages.

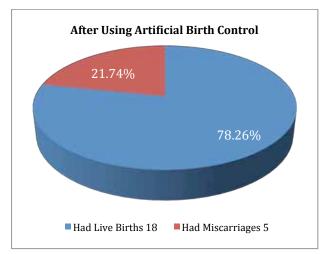
Information About the 11 Cases Who Had Misscarriages



From the 11 cases that had miscarriages, 6 became pregnant again, 5 had live births and 1 had miscarriage again.

Comparisson of Number of Misscarriages





Information On The 5 Couples That Continue Trying To Conceive

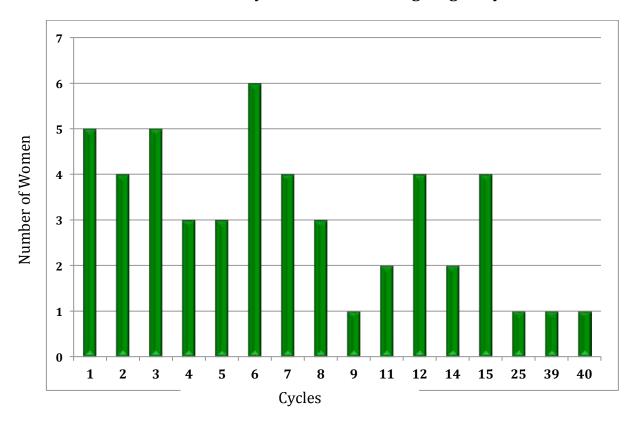
Never Used Artificial Methods of Birth Control

- 1. CASE 106: 38 year old woman with a previous miscarriage, followed by 6 years trying to conceive.
- 2. CASE 112: 36 year old woman without children. Trying to achieve pregnancy for 3 years.
- 3. CASE 124: 31 year old woman trying to achieve pregnancy for 3 years.

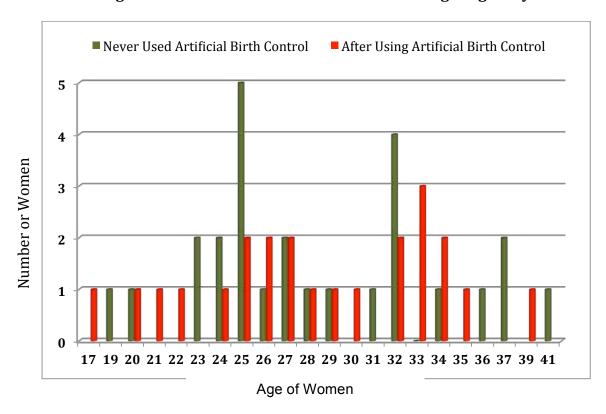
Used Artificial Methods of Birth Control

- 4. CASE 223: 37 year old woman with two children. She used Copper-T for two years.
- 5. CASE 224: 25 year old mother without children. Used the Depo-Provera injection for 3 years. She has been trying to conceive for 1 year.

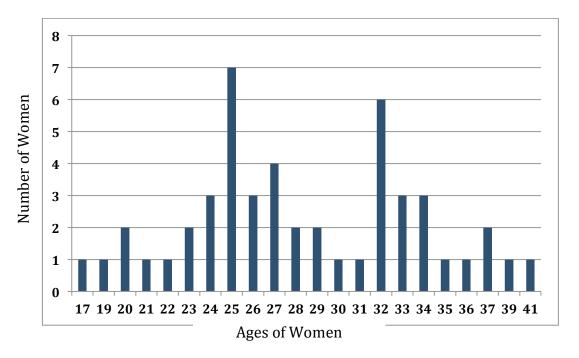
Number of Cycles Before Achieving Pregnancy



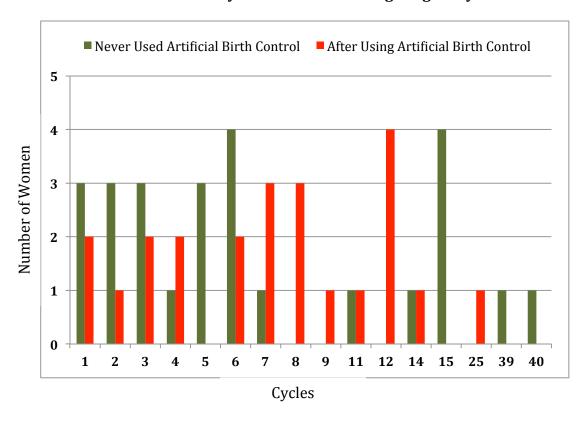
Ages of 49 Women that Succeeded in Achieving Pregnancy



Total Number of Women by Age Who Achieved Pregnancy



Number of Cycles Before Achieving Pregnancy



Conclusion

All our teachers encourage couples to accept a pregnancy as a gift from God.

More studies of this nature need to be done in order to draw more precise conclusions. What is verifiable is that the simple recognition of the signs of fertility are present in our body and is a simple solution for both achieving or postponing pregnancy naturally.

In poor countries, it is not always possible even in public hospitals, to receive the kind of services that private Western clinics can give to infertile couples. Nevertheless, this short, ongoing, study proves that extraordinary success can be achieved without expense.

It is time for us to thank the wisdom of the researchers who look for natural ways to help humanity. The answer is pure, simple and economical within the mysterious intricacies of our own bodies. God is letting us discover them according to His own design and will.

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