

# CURRENT MEDICAL RESEARCH

SUPPLEMENT

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DIOCESAN ACTIVITY REPORT

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## NFP Related Research

Geerling, J.H. **Natural Family Planning.** *American Family Physician* 52 (November 1995): 1749-1756.

Geerling presents a workmanlike overview of modern Natural Family Planning, as well as calendar rhythm. His material is essentially adapted from the Creighton teaching curriculum and informs the family physician of the utility and reliability of Natural Family Planning. Unfortunately, it restricts itself to the early stages of mucus ferning and channeling reported by Hilgers and takes little if any note of Odeblad's contributions. Geerling believes that previous use effectiveness studies considered all unplanned pregnancies as method failures. This is misleading, especially when he then uses the Creighton model figures as reported by Fehring for comparison. Fehring however, also reported his figures in the category which Natural Family Planners call "informed choice pregnancies." When informed choice pregnancies were separately identified, unplanned pregnancies with the Creighton Model were comparable to those reported by other researchers of the Billings Method and the Sympto-Thermal Method. The lactational amenorrhea method is also described briefly [It is good news that

*NFP is gaining recognition, a first step to acceptance. Ed.]*

Kambic, R.T. & Lamprecht, V., **Calendar Rhythm Efficacy: A Review.** *Advances in Contraception* 12 (1996): 123-128.

Despite credible efforts to spread modern Natural Family Planning methods - The Ovulation and Sympto-Thermal Methods - worldwide, calendar rhythm is still the most widely used method of NFP. Kambic and Lamprecht review eight studies of calendar rhythm published between 1940 and 1989. Half of the studies did not specify the rules for computing the alleged fertile time. Only two are clearly reported trials. Three studies averaged less than 12 months in duration. The authors also excluded Latz and Reiner's reports which claimed no unplanned pregnancies in 1,000 women over an average of 11.2 observation months. Other studies were excluded because they did not publish their methodology. Those remaining studies which were available for analysis found an (estimated) 12 month pregnancy rate of  $15.0 \pm 4$ . The authors conclude that a woman with regular cycles may succeed in spacing pregnancies provided her cycles remain regular. [While this is of historical interest, most Natural Family Planners would not want to see a reversion to calendar rhythm. Ed.]



## Contraceptive Technology & Use

**Injectibles and Implants.** *Population Reports, Series K, [5]* (August 1995): 1-30.

The currently available injectible contraceptives are reviewed and monthly formulations described. Many are not available in the United States but include progestin-only, i.e., 200 mg norethindrone (NET EN) given every two months, brand name - Noristerat. Cyclofem (25 mg DMPA + 5mg estradiol cypionate) given monthly. Mesigyna (50 mg NET EN = 5 mg estradiol valerate) given monthly. Perlutan and other names (150 mg dihydroxy-progesterone acetophenide + 10 estradiol enanthate) is also available in half doses under several brand names, given monthly. Chinese researchers + Squibb - 250 mg 17 hydroxy-progesterone caproate + 5 mg. estradiol valerate given every two months.

The article lists the common side effects and complications, bleeding changes, effects on weight gain, cholesterol metabolism, headaches, dizziness, also loss of bone density from progestin-only combinations. The latter is thought to be without clinical implications and reversible on discontinuation of medication. In case the injection does not prevent continuation of pregnancy, major fetal cardiac and neurological

anomalies have not been reported, but there are missing fingers, extra fingers and chromosomal defects. The researchers are not certain that this can be attributed to DMPA. Effects on breast and cervical cancer are alleged to be nil, while the drug is said to protect against endometrial cancer and epithelial ovarian cancer as well as liver cancer. It is also said to protect against anemia and to reduce sickle cell crises. While a protective effect on endometrioses has been theorized, the evidence for this is slight, as is the evidence for protection against pelvic inflammatory disease. New single use injection systems are being developed for the Third World. Trainers are taught to prevent infection while giving injections.

Return to fertility: From the time of the last injection, half of DMPA users become pregnant in the first nine months; the other half wait longer. *[It is a pity that the only illu-*

*stration which offers women choices comes from Pro-Familia the Columbian Planned Parenthood Agency. It does not mention natural methods at all, but restricts itself to "modern methods" and permanent methods. Ed.]*



## Abortion

**Mifepristone Mishap?** *Ob.Gyn. News* 31 (September 1996): 67.

*Ob.Gyn. News* reports the first case of toxic epidermal necrolysis in a 23-year old woman who had received 600 mg of mifepristone and a prostaglandin analogue 48 hours later for abortion of a 21-day old fetus (*Journal of American Academy Dermatology* 35:112, 1996). After taking mifepristone, she developed bilateral conjunctivitis and disseminated cutaneous eruption of dark red macules with necrotic centers on the face and trunk. Two days later, blisters erupted on her face,

trunk, arms, palms, and soles, as well as genital erosions. Her skin began to heal after 10 days of treatment with antiseptic baths, intravenous albumen, and rehydration. While toxic epidermal necrolysis is a rare complication of mifepristone, physicians should be aware of it. *[Planned Parenthood had publicized multi-center clinical trials of medical abortion with mifepristone and prostaglandin for 3000 persons. Ed.]*



## Adolescent Sexuality

Ryan, S.A. et al., **Puberty Questions Asked by Early Adolescents: What Do They Want to Know?** *Journal of Adolescent Health* 19 (August 1996): 145-152.

Sixth grade students, mean age 12.1 years, were surveyed as part of a Health Education Program to discover their questions about puberty and their self-assessed pubertal

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stage. Of 159 initial subjects, 111 generated a total of 200 questions. 38% of the questions reflected biological topics such as genital physiology, sexuality, and reproduction. Only 6% addressed psycho-social questions. Females and Asians, compared to other groups, showed greater interest in the differences between male and female development. Pre-pubertal males were more concerned about puberty in general than were boys of later stages. Earlier maturing males focussed on genital anatomy. Clearly the biological questions predominated at this stage of development. The authors conclude "health educators and clinicians may need to focus on physiologic areas to provide more meaningful information about development to early adolescents." [Discussing only the virtues and the moral law may not be sufficient to influence behavior. Ed.]

Rogers, M.M. et al., **Impact of a Social Support Program on Teenage Prenatal Care Use and Pregnancy Outcomes.** *Journal of Adolescent Health* 19 (August 1996):133-14.

The impact of resource mothers on pre-natal care, low birth weight, and pre-term birth was evaluated using paraprofessional women who provided social support to pregnant teenagers through home visits. Outcomes for first-time mothers were compared with and without resource mothers and analyzed by multiple logistic regression for program effects simultaneously adjusted for age, race, marital status, and previous pregnancies. Teenagers in the Resource Mothers Program were more likely to initiate prenatal care early were O.R. (odds ratio) 1.48, to receive adequate prenatal care. O.R. - 1.58, compared with teenagers in

other counties who were not receiving additional support. The program had no significant effect on low birth weight, but as a group, the index group were less likely to have a pre-term birth than unmarried teenagers in other counties, O.R. - 0.81. Since pre-term birth contributes heavily to infant mortality, the program effect is promising. [The postpartum Teen STAR Program in Dallas, Texas has affected not only pre-term birth, but low birth weight babies, and has been recognized for having the lowest infant mortality in the city of Dallas. Ed.]

Harel, Z., et al., **Adolescents' Reasons for and Experience After Discontinuation of the Long-Acting Contraceptives Depo-Provera and Norplant.** *Journal of Adolescent Health* 19 (August 1996): 118-123.

Thirty-five (35) teen women who discontinued Depo-Provera and 31 teens who discontinued Norplant were available for periodic assessment during and use of the methods and up to 12 months after discontinuation. The mean gynecologic age of the Depo-Provera users was 4.7 years and of the Norplant users 3.4 years of gynecologic age. The most common reason for discontinuation in both were: 1) irregular bleeding - 64%, weight gain - 41%, increased headaches - 30%. Most discontinuations occurred 21.8 months after Norplant insertion and 9.2 months after Depo-Provera was initiated. Resumption of menstrual regularity and dysmenorrhea was noted sooner after Norplant removal than after Depo-Provera. Increase in body mass index persisted for six months after discontinuation; 62% switched to the condom. Conception proportion reached 0.93 at 12 months after cessation of Norplant

which was significantly higher than the cumulative proportion of conception are Depo-Provera. Twenty-six percent (26%) of former Depo-Provera users and 19% of former Norplant users chose not to use any family planning method after discontinuation. One stated that she had decided to abstain. Prior to discontinuing the method, 20% reported consistent condom use after discontinuation, compared to 3% while using Norplant. Authors conclude that providers need to extend and improve their counseling.



## Miscellaneous

Erik Odeblad, M.D., Ph.D., Professor emeritus of Biophysics, Univ. of Umea, Sweden, spoke at the Billings Ovulation Method Association Biannual Conference, September 6-8 in St. Cloud, Minnesota and at Georgetown University, Department of OB/GYN, September 10, 1996. Some new points which have not yet appeared in his writings, or

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have only been mentioned in the June 1996 Bulletin of the OM Research & Reference Center in Australia:

- After six months of oral contraceptive use, there is more loss of the S-crypt cells than replacement.
- Some cervical crypts begin to bleed before the period. This is not described in the literature.
- During lactation and before the first menstrual period, the mucus sequence is P then L. Therefore, the mucus is not sperm conducting. P-mucus has been noted as early as 18 months before menarche.
- P-mucus has an immuno protective function to prevent bacterial invasion of the endometrial cavity.
- Cervical crypts do not live indefinitely, usually only 3 years, at the most, 10-15 years — they then degenerate and new ones are formed. The disappearance of the crypts is by a process formerly called apoptosis, now called programmed cell death. The nucleus cell collapses, the cell is removed by macrophages, as opposed to necrosis (accidental cell death), which usually follows loss of blood

supply or infection and is often accompanied by inflammation.

- The mucus formerly described as P<sub>a</sub> is now called P<sub>2</sub>.
- Mucus is changed in its passage from the cervix to the vagina; hence, detection devices which attempt to find crystals in mucus at the vaginal opening are doomed to failure. [*Several groups are marketing such a device in the US and Canada. We attempted to field test one with five experienced Billings users. The trial was a complete failure, not only for cervical mucus but also for saliva. Ed.*]
- At menopause, the ovary no longer contains FSH receptors. While some follicles may develop to a limited extent, they cannot be brought to full maturity and ovulation because they lack FSH receptors. This type of protean follicular development continues up to four years beyond menopause. [*These follicles produce a certain amount of estrogen, which may account for the variations in menopausal symptoms seen. Ed.*]
- When women are taking oral contraceptives or, probably, long-acting progestins, the sensory receptors in the vagina and

vulva which are needed to sense fluid are impaired. They disappear after two years of oral contraceptive use. Their speed of regeneration is unknown. Hence women who have been on the pill for more than two years tell us that they can see the mucus but that they cannot feel it.

- The average numbers of crypts in the cervix are 600- 800; however, the range is 500-1000.

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