



Happy New Year from the team at Fertility East.

2010 has been an interesting year in terms of scientific developments and it will be my pleasure to assist our colleagues up to keep up to date with relevant fertility developments and trends.

In all spheres of medicine patients are being exposed to media overload and find it more and more difficult to sort out what is relevant. Aggressive advertising campaigns especially in the field of IVF do not help and so by keeping you up to date we hope to facilitate the important role that the General Practitioner plays in the fertility management team.

The 2 main thrusts of research are:

1. To improve selection of gametes and embryos and so improve pregnancy and live birth outcomes for all forms of assisted reproduction.

- Despite massive research efforts and claims, at this point in time no test exists that allows accurate selection of gametes or embryos that will lead to a live birth.

- These areas of research include but are not limited to digital imaging of cell morphology or ultrastructure, modifications to culture media, testing of gametes with metabolomics, proteomics and genomics, modifications of oocyte stimulation protocols which besides the use of low dose gonadotropins includes possible roles of DHEA, Growth Hormone and even more exciting the role of androgen pretreatment.

- Evidence¹ from polar body testing of oocytes indicates the effects of age as, almost every second oocyte in IVF patients aged over 38 is abnormal, originating from meiosis I and meiosis II.

- Getting back to basics however articles still appear comparing ovulation induction and intrauterine insemination with expectant treatment for unexplained infertility and advanced maternal age (expectant implying timed intercourse) and often there is little difference in outcomes. A good case for ovulation tracking especially at times when an active treatment program is taking place.

2. Improve the basic health and well being of the patient about to undergo reproduction because of the far reaching consequences of lifestyle and health on fertility, pregnancy, childhood and even adult health issues.

- The title of the 2010 Fertility Society of Australia's annual congress was "A Healthy Start" indicating the absolute importance of maintaining health before during and after conception.

- A major focus of interest is the effects of environmental pollutants or contaminants on maternal and paternal gametes.

- Dr Linda Giudice² an internationally acclaimed expert called for a reversal of the impact of these contaminants which include but are by no means limited to everyday contaminants in the form of personal care products (shampoo, nail polish, deodorants, insecticides and plastic toys) as well as other commonly used things such as carpets, heavy metals, flame retardants in mattresses, clothing and plastics.

Focussing on more specific issues:

- Smoking³ with the incidence increasing in young females is associated with reduced fecundity and adverse reproductive outcomes.

- Alcohol consumption⁴ of 4 drinks per week by women reduced IVF live birth rate by 16% and if both male and female partners drank at least 4 drinks per week by 21%.

- Obesity which has been dealt with in past issues

References

1. Kuliev, Reproductive BioMedicine Online Volume 22, Issue 1, Pages 2-8, January 2011
2. Giudice, Occup. Environ. Med. January 1, 2011 68: 36-43
3. Dechanet, Human Reproduction Update, Volume 17, Issue 1 Pp. 76-95
4. Rossi Obstet Gynecol 117(1):136-142, Jan 2011

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Ovulation Tracking

Introduction

In order to maximise a couple's chances of natural conception they need to time intercourse to correspond with the day before and the day of ovulation. This can be easily done using ovulation tracking.

Normal ovulation (release of the egg) is preceded by and the result of an LH surge. This surge is a significant and rapid rise in the level of LH hormone produced by the pituitary gland in response to a maturing follicle/egg and its associated rising oestrogen hormone. The surge occurs 24 hours before ovulation and can be measured by blood tests on a daily basis (fasting not required). Measuring of the follicle's diameter by a transvaginal ultrasound assists us in planning the time to start daily LH blood hormone testing. Confirmation of ovulation occurs with another blood test 7 days after ovulation and referred to as a mid-luteal progesterone. This is NOT a pregnancy test.

Who needs ovulation tracking?

- Females with regular menstrual cycles, who have tried to conceive for a few months but still do not wish to undergo infertility investigations and treatment.
- Females who have irregular menstrual cycles which make timing of intercourse difficult to determine.

How is ovulation tracking done?

- You require a referral from your General Practitioner to a specialist at Fertility East (listed overleaf) requesting Ovulation Tracking.
- Phone Fertility East: 9389 1177 on Day 1 (first day for your period). A Nurse Coordinator will make a time for you to come in and have a blood test and ultrasound.
- She will advise you when to begin the tracking process.
- At your first tracking appointment a blood test and or pelvic ultrasound will be preformed by the Nurse Co-ordinator.
- Based on these results you will be advised which day further testing is needed.

Once an LH surge is detected you will be informed and can plan to have intercourse that day and the following day.

An ovulation confirmation check is done by measuring a blood progesterone level, seven (7) days after ovulation. Should you miss a period a pregnancy test will be done. This information will also be sent to your managing doctor. If you have a period please contact the nurse coordinator to commence the next cycle.

Where is ovulation tracking done?

Fertility East, Level 26, Westfield Tower 1, 520 Oxford Street Bondi Junction. Phone (02) 9389 1177

What does it cost?

For all patients with a valid Medicare Card the service is **bulk billed**, so there are no out of pocket costs.

For non Medicare eligible patients please contact accounts at Fertility East.

A fully **BULK BILLED** service where by the GP can manage their patient right through to pregnancy.

**GP
FAMILY DOCTOR**

REFERRAL

A referral to a Fertility Specialist is necessary to have the service bulk billed however tracking is performed directly with Fertility East.

PATIENT

Phone for appointment 02 9389 1177
NO CONSULTATION REQUIRED

Fertility East, Top Floor (Level 26) Westfield Tower 1,
520 Oxford Street Bondi Junction 2022



- 2 hour free parking in Westfield
- 1 minute walk from Bus Terminal and Train Station

BULK BILLED

- BLOOD HORMONE TESTING
- PELVIC ULTRASOUNDS
- BLOOD PREGNANCY TEST

PREGNANT

IF NOT PREGNANT

(After 3 cycles)

Referral to a Fertility Specialist is current for 12 months for diagnosis & treatment of infertility if required