Restorative Reproductive Medicine

A “Clinical Evidence” Based approach to care

University College Dublin
Saturday 26th March 2011

Dr. Phil C. Boyle
Restorative Reproductive Medicine

- Fertility *is not a disease* that needs to be suppressed or “treated” with medications
Fertility is not a disease that needs to be suppressed or "treated" with medications

Dr. TW. Hilgers
Restorative Reproductive Medicine

Restore normal function and avoid techniques that are

1. Suppressive
2. Destructive
3. Circumventive
Restorative Reproductive Medicine

1. IUI
2. IVF
3. ICSI
Restorative Reproductive Medicine

Why Bother??
Because Restoration matters!!
A thing of beauty is a joy for ever:
Its loveliness increases; it will never
Pass into nothingness;  

John Keats
Clinical Evidence

- Symptoms
- Signs
- Investigations
- Diagnosis
- Treatment
Clinical Evidence

- Symptoms
- Signs
- Investigations: All Improved by charting.
- Diagnosis
- Treatment
Clinical Evidence

- Symptoms
- Signs
- Investigations
- Diagnosis
- Treatment
- Assessment of outcome
- Modification of treatment as required
Clinical Care

Supported by

1. Medical Training
2. Published Studies
3. Clinical Experience
4. Common Sense
5. Ongoing critical evaluation and audit of patient care
Eureka!
Clinical Care

Supported by

1. Medical Training
2. Published Studies
3. Clinical Experience
4. Common Sense
5. Ongoing critical evaluation and audit of patient care
Medical Publications

Serious need to inform peers of “new evidence” through publications in medical journals
NaProTechnology

- There are many publications regarding the medical and surgical techniques used, but they are not well known or widely applied
NaProTechnology

The Medical & Surgical Practice of NaProTECHNOLOGY

Published 2004

Thomas W. Hilgers, M.D.
Galway NaPro study - live birth rates

- All couples
- Crude rate: 25.5
- Adjusted rate: 52.8

Stanford, Parnell, Boyle. JABFM, Sept 2008
Restorative Reproductive Medicine

- Complicated and challenging to be proficient?

- How can I help my patients NOW!?
Topics

- PMS
- Post Natal Depression
- Male Factor Infertility
- Premature Ovarian Failure
- Recurrent Miscarriage
- Repeated Failed IVF
Pre menstrual Syndrome
### Incidence of Symptoms Associated with Premenstrual Syndrome (PMS) (N=147)

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>%</th>
<th>Symptoms</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability</td>
<td>92.6</td>
<td>CHO craving</td>
<td>83.7</td>
</tr>
<tr>
<td>Bloating</td>
<td>91.7</td>
<td>Breast tenderness</td>
<td>82.7</td>
</tr>
<tr>
<td>Crying easily (teariness)</td>
<td>90.2</td>
<td>Weight gain</td>
<td>75.6</td>
</tr>
<tr>
<td>Fatigue</td>
<td>89.1</td>
<td>Headache</td>
<td>64.4</td>
</tr>
<tr>
<td>Depression</td>
<td>88.0</td>
<td>Insomnia</td>
<td>49.2</td>
</tr>
</tbody>
</table>

**Premenstrual Syndrome (PMS)—Number of Days Prior to Menses that Symptoms Start (N=115)***

<table>
<thead>
<tr>
<th>Number of days symptoms start premenstrually</th>
<th>4-6</th>
<th>7-9</th>
<th>10-13</th>
<th>14 or more</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.7%</td>
<td>37.4%</td>
<td>29.6%</td>
<td>24.3%</td>
<td>9.4 ± 3.2</td>
</tr>
</tbody>
</table>

## Incidence of Premenstrual Syndrome (PMS) in General Population

<table>
<thead>
<tr>
<th>Symptom Description</th>
<th>% of Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>No premenstrual symptoms</td>
<td>3–10</td>
</tr>
<tr>
<td>Mild premenstrual symptoms</td>
<td>50–75</td>
</tr>
<tr>
<td>Moderate to severe premenstrual symptoms that disrupt lifestyle</td>
<td>20–30</td>
</tr>
<tr>
<td>Severe, debilitating symptoms</td>
<td>2–10</td>
</tr>
</tbody>
</table>


Use of Progesterone to Treat PMS of PMDD

“Although vaginal progesterone suppositories were once widely used in the treatment of PMS, this therapy can no longer be advocated. Studies failed to demonstrate the superiority of progesterone over placebo. Oral progesterone also has been found to be no more effective than placebo in treating PMS.”

Double-blind Trial of Progesterone Therapy and the Precision of Targeting the Luteal Phase

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Targeting Luteal Phase</th>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampson⁴⁹</td>
<td>1979</td>
<td>Calendar</td>
<td>No improvement</td>
</tr>
<tr>
<td>Van der Meer, et al.⁵⁰</td>
<td>1983</td>
<td>Calendar</td>
<td>No improvement</td>
</tr>
<tr>
<td>Dennenstein, et al.⁵¹</td>
<td>1985</td>
<td>Urinary hormonal assessment</td>
<td>Significantly better</td>
</tr>
<tr>
<td>Anderschi, et al.⁵²</td>
<td>1986</td>
<td>Calendar</td>
<td>No improvement</td>
</tr>
<tr>
<td>Maddocks⁵²</td>
<td>1986</td>
<td>Day 16</td>
<td>No improvement</td>
</tr>
<tr>
<td>Freeman⁵⁴</td>
<td>1990</td>
<td>Day 16</td>
<td>No improvement</td>
</tr>
</tbody>
</table>

She says she feels

Irritable and
Bloated at
that time of the month.

It makes her feel

out of control

new
Sarafem™
fluoxetine hydrochloride

More like the Woman she is

See Important Safety Information on back cover.
See full prescribing information in the pocket.

Lilly
The comparison of response to treatment of Premenstrual Syndrome (PMS) with 20 mg of fluoxetine hydrochloride versus placebo (From: Pope Paul VI Institute research, 2004, and published data on fluoxetine hydrochloride).
The comparison of response to treatment of Premenstrual Syndrome (PMS) with targeted HCG and progesterone hormone therapy versus 20 mg of fluoxetine hydrochloride versus placebo (From: Pope Paul VI Institute research, 2004, and published data on fluoxetine hydrochloride).
<table>
<thead>
<tr>
<th>Symptoms</th>
<th>PMS (n=147)</th>
<th>Infertility (n=252)</th>
<th>Spontaneous Abortion (n=300)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability</td>
<td>92.6</td>
<td>90.5</td>
<td>73.3</td>
</tr>
<tr>
<td>Bloating</td>
<td>91.7</td>
<td>85.3</td>
<td>81.6</td>
</tr>
<tr>
<td>Crying easily</td>
<td>90.2</td>
<td>80.2</td>
<td>63.6</td>
</tr>
<tr>
<td>Fatigue</td>
<td>89.1</td>
<td>67.3</td>
<td>55.2</td>
</tr>
<tr>
<td>Depression</td>
<td>88.0</td>
<td>74.1</td>
<td>62.8</td>
</tr>
<tr>
<td>CHO cravings</td>
<td>83.7</td>
<td>75.1</td>
<td>64.6</td>
</tr>
<tr>
<td>Breast tenderness</td>
<td>82.7</td>
<td>85.7</td>
<td>74.4</td>
</tr>
<tr>
<td>Weight gain</td>
<td>75.6</td>
<td>69.4</td>
<td>60.3</td>
</tr>
<tr>
<td>Headache</td>
<td>64.4</td>
<td>50.8</td>
<td>42.0</td>
</tr>
<tr>
<td>Insomnia</td>
<td>49.2</td>
<td>29.0</td>
<td>9.9</td>
</tr>
</tbody>
</table>

Plasma β-endorphin changes (mean ± SE) in the perimenstrual period in PMS patients (solid line) and controls (dashed line). *p<.05 between groups (From: Facchinetti F, Martignoni E, Petraglia F, Sances MG, Nappi G, Genazzani AR: Premenstrual Fall of β-endorphin in Patients with Premenstrual Syndrome. Fertil Steril 47:570-573, 1987).
Premenstrual Syndrome (PMS)  
What You Can Do...

1. Diet – Trial for 2 months  
   Avoid Milk, Wheat and Sugar

2. Exercise

3. Low Dose Naltrexone 2mg 1\textsuperscript{st} Week,  
   3mg 2\textsuperscript{nd} week and 4.5mg nocte thereafter  
   compounded – fast release!

4. Omega 3 2000mg daily
Premenstrual Syndrome (PMS)
What You Can’t Do...

1. Progesterone on day 16 of cycle!
Premenstrual Syndrome (PMS)
If Resistant......

1. Refer to FertilityCare Practitioner for Charting and you can prescribe *timed* progesterone (cyclogest 400mg pv nocte x 10 nights) on Peak +3 of cycle

2. Refer to “NaProDoc” if desired
Androceles and the Lion
Post Natal Depression
Symptoms of Postpartum Depression¹

- Dysphoric mood
- Loss of interest in usually pleasurable activities
- Psychomotor agitation or retaliation
- Fatigue
- Changes in appetite or sleep
- Recurrent thoughts of death/suicide
- Feelings of worthlessness or guilt, especially failure at motherhood
- Excessive anxiety of child’s health


### Incidence of Postpartum Depression

<table>
<thead>
<tr>
<th>Description</th>
<th>Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk of postpartum depression</td>
<td>12-16%</td>
</tr>
<tr>
<td>Risk in women with a history of depression</td>
<td>25%</td>
</tr>
<tr>
<td>Risk in adolescent pregnancies</td>
<td>26-32%</td>
</tr>
</tbody>
</table>


**Progesterone Dosage**

**Patients with Postpartum Depression**

**Phase II Study (N=30)**

<table>
<thead>
<tr>
<th>Dose</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>200 mg IM only</td>
<td>5</td>
<td>16.7</td>
</tr>
<tr>
<td>200 mg IM then 100 mg QOD x 5 additional doses</td>
<td>25</td>
<td>83.4</td>
</tr>
<tr>
<td>♦ Repeat series</td>
<td></td>
<td></td>
</tr>
<tr>
<td>♦ Titration with oral dosing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>♦ Titration with long-term</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>IM or oral dosing</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

From: Hilgers TW: The Medical and Surgical Practice of NaProTechnology. Pope Paul VI Institute Press, Omaha, Nebraska, 2004. Table 30-5.
## Results of Progesterone Therapy Second Phase of Study (N=30)

<table>
<thead>
<tr>
<th>Improvement Response</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marked</td>
<td>26</td>
<td>86.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>3</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total Improvement Response</strong></td>
<td><strong>96.7</strong></td>
<td></td>
</tr>
<tr>
<td>No improvement</td>
<td>1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

Postpartum Depression Clinical Worksheet of the Pope Paul VI Institute.

<table>
<thead>
<tr>
<th>SYMPTOM LIST</th>
<th>BEFORE TREATMENT Y/N</th>
<th>AFTER TREATMENT Y/N</th>
<th>AFTER TREATMENT Y/N</th>
<th>EXACT TREATMENT DOSAGES AND DATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Panic Attacks</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fatigue</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insomnia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Appetite</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helplessness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feel Wired</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shaky</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crying</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hot Flashes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night Sweats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapid Heartbeat</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nausea</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strange Thoughts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicidal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Date Symp. Began</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Symptoms before and after progesterone therapy in patients with PPD (N=30) (From: Pope Paul VI Institute research, 2004).
Additional symptoms before and after progesterone therapy in patients with PPD (N=30) (From: Pope Paul VI Institute research, 2004).
The mean number of symptoms before and after progesterone therapy in patients with postpartum depression (N=30). (From: Pope Paul VI Institute research, 2004.)
Postnatal Depression
What You Can Do...

1. Cyclogest 400mg pv twice daily for 5 days, followed by one nightly for 5 days and stop.

2. If symptoms return, repeat above and add Low Dose Naltrexone (as before) 2mg, 3mg and 4.5mg nocte thereafter for 3 to 6 months

3. Consider Omega 3 2000mg daily

Progesterone treatment may be worth trying for up to 1 year after delivery
Postnatal Depression
What You Can Do...

1. The results of treatment are rapid and profound!

2. Literally dramatically better within hours of intramuscular progesterone and within a day of cyclogest pessary

3. Patients are unrecognisable at review
Gratitude

Joy
Bliss
Love
Pleasure
Delight
Excitement
Appreciation
Happiness

LOVE
Male Factor Infertility
Male Factor Infertility

How low can you go?
Male Factor Infertility

- WHO Criteria
  - Volume >2ml
  - Count >20million per ml
  - Motility >50%
  - Morphology >50%
Male Factor Infertility

- **Changed Criteria**
  - Volume $> 1.5$ ml
  - Count $> 15$ million per ml
  - Motility $> 50\%$
  - Morphology $> 50\%$, Kruger's $4\%$

WHO Criteria 2010
**Male Factor Infertility**

<table>
<thead>
<tr>
<th>Male Factor Infertility</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Oligozoospermia</strong></td>
<td>Sperm concentration fewer than $15 \times 10^6$ /ml</td>
</tr>
<tr>
<td><strong>Asthenozoospermia</strong></td>
<td>Fewer than 50% spermatozoa with forward progression</td>
</tr>
<tr>
<td><strong>Teratozoospermia</strong></td>
<td>Fewer than 4% spermatozoa with normal morphology</td>
</tr>
<tr>
<td><strong>Oligoasthenoteratozoospermia</strong></td>
<td>Signifies disturbance of all three variables</td>
</tr>
<tr>
<td><strong>Azoospermia</strong></td>
<td>No spermatozoa in the ejaculate</td>
</tr>
</tbody>
</table>
Male Factor Infertility

- Additional Criteria
  - Antisperm antibodies < 50%
  - Viability (24 hour survival) > 50%
  - DNA Fragmentation Index DFI
    - 15% - normal
    - 16 – 30% Borderline (or 25%)
    - >30% Abnormal – ART advised
    - >60% Advised Donor Sperm
Semen analysis

- Very poor seminal fluid results can result in successful pregnancy.
Semen analysis

- Very poor seminal fluid results can result in successful pregnancy.

- Frequently physicians recommend ICSI for male factor infertility.
Semen analysis

- Very poor seminal fluid results can result in successful pregnancy.
- Frequently physicians recommend ICSI for male factor infertility.
- They give up on the possibility of natural conception too quickly.
Semen analysis

• Seminal Fluid Collecting Device
  • Male Factor Pak
  • PERFORATED

Zavos, PM: Characteristics of human ejaculates collected via masturbation and a new Silastic seminal fluid collection device.

Treatment Strategy

- Loose clothing – cotton trousers
- Minimum Stress
- Exercise & Diet – weight reduction
Treatment Strategy

- Loose clothing – cotton trousers
- Minimum Stress
- Exercise & Diet – weight reduction
- No Cigarettes
- Minimum alcohol
- Diet - No Caffeine
- Supplements - FertilityPlus
Treatment Strategy

- Repeat Semen analysis after 10 - 12 weeks
Treatment Strategy

- **Low Count - Oligozoospermia**
  - Antibiotics
    - Ciproxin 250mg BD for 3 weeks
  - Tamoxifen 20mg daily

- NSAID – Diclofenac Sodium 100mg rectally – day 5, for 2 weeks
Treatment Strategy

- **Low Motility** – Asthenozoospermia

- Antibiotics
  - Ciproxin 250mg BD for 3 weeks
  - CoEnzyme Q10 200mg daily
Low Morphology - Teratozoospermia

- Antioxidants
  - Pycnogenol 60mg daily
  - Vitamin C 1000mg daily
  - Alpha Lipoic Acid 300mg daily
Treatment Strategy

- Repeat Semen analysis in 10-12 weeks
Treatment Strategy

- Blood Tests
  - FSH
  - LH
  - Thyroid Function
  - Testosterone profile
Treatment Strategy

- Urologist referral
  - Varicoele Repair
  - Chromosomal testing
Case Presentations

- Case 1 – Motility < 5%
- Case 2 – Motility < 5%, Low Volume
- Case 3 – Zero motility, occasional sperm

- Additional Brief cases .......
Case 1 34 year old, 15 months trying

- Low Motility - Asthenozoospermia
  - < 5%
- Volume 3ml
- Count 40 Million
Case 1 34 year old, 15 months trying

- Lifestyle
- Co Enzyme Q10 200mg
- FertilityPlus
- Ciproxin 250mg bd for 3 weeks
Case 1 34 year old, 15 months trying

- +ive pregnancy test June 2009
  - First cycle after antibiotic treatment
Case 1  34 year old, 15 months trying

- Baby Boy
- Feb 2010
- 9 lbs (4,090 gr)
- T+10
- C Section
  - all well
Case 2 31 year old, 15 months trying

- May 2008 Asthenozoospermia
  - Volume 1.3ml
  - Count - 90x10^6
  - Motility < 5%
  - Morphol
Case 2  31 year old, 15 months trying

- Lifestyle
- Co Enzyme Q10 200mg
- FertilityPlus

- Ciproxin 250mg bd for 3 weeks
Case 2  31 year old, 15 months trying

- SEMEN ANALYSIS

**May 2008**
- Volume 1.3ml
- Count - 90x10⁶
- Motility < 5%
- Morphology – normal

**Pre treatment**

**October 2008**
- Volume 0.5ml
- Count - 27x10⁶
- Motility - NIL
- Morphology – normal

**3 months After Rx**
Case 2  31 year old, 15 months trying

- Advised to discontinue treatment in Oct 08

- Female had Laparotomy for adhesions and endometriosis 2 months before this in July 08!
Case 2  31 year old, 15 months trying

- Spontaneously conceived April 2009

- 6 Months after stopping treatment!
Case 2

31 year old, 15 months trying

Spontaneously conceived April 2009

EDD Nov 09
Case 2 31 year old, 15 months trying

- Boy
- November 2009
- NVD T+9 days
- 7lb 11 oz
  - 3,490 gr
Case 2  31 year old, 15 months trying

- Spontaneously conceived a second time
- EDD 26/4/11.
- Cyclogest until 18 weeks.
Case 2  31 year old, 15 months trying

- Should have tried
  - Repeat Semen Analysis
  - Referral to Urologist
  - NSAID?
Case 2

31 year old, 15 months trying
Case 3  35 year old, 3 miscarriages

Oligoasthenoteratozoospermia

  - Volume 3.5ml
  - Count – occasional sperm
  - Motility - 0%
  - Morphology – too few
Case 3 35 year old, 3 miscarriages

- Lifestyle
- Tamoxifen 20mg daily
- CoEnzyme Q10 200mg daily
- Fertility Plus
- HCG 5000iu x3 times per week
Case 3 35 year old, 3 miscarriages

- SEMEN ANALYSIS

- **October - Dec 2006**
  - Volume 3.5ml
  - Count – occ sperm
  - Motility - 0%
  - Morphology

- **Feb 2007**
  - Volume 3.ml
  - Count – 0.7 million/ml
  - Motility - 15%
  - Morphology – 4
Case 3 35 year old, 3 miscarriages

- Lifestyle
- Tamoxifen 20mg daily
- CoEnzyme Q10 200mg daily
- Fertility Plus
- HCG 5000iu x3 times per week
- Ciproxin 250mg bd for 3 weeks
Case 3  35 year old, 3 miscarriages

- Conceived 2 months later!
Case 3  35 year old, 3 miscarriages

- **4th April 2008**
  - Term +7

- **10lb 1 oz (4,600g)**

- Baby Girl
  - C-Section
Other cases - Couple A

Oligoasthenoteratozoospermia

- **Apr 2005** SEMEN ANALYSIS
  - Volume 1.6ml
  - Count – 9 million/ml
  - Motility - 29%
  - Morphology – 12%

3 similar samples previously

Advised IVF - ICSI
Other cases - Couple A

- Nov 2006
- 3.26kg - Boy
- Vaginal delivery, full term

- 2nd Success – October 08
- 3rd Baby on the way
Other cases - Couple B

- 3 failed IVF – ICSI
- Count 6 million
- Motility 37%
Other cases - Couple B

- 3 failed IVF – ICSI

- Count 6 million
- Motility 37%

- Live Birth June 2009 – 7lb 6 oz
  3.4 kilos
- Boy
Other cases - Couple C

- 2 failed IVF – ICSI
- Count 4 million (was 1 million)
- Motility 15%
  - 0% rapid motility
  - 5% slow progressive motility
  - 10% non progressive motility
Other cases - Couple C

- 2 failed IVF – ICSI
  - Count 4 million
  - Motility 15%
  - Live birth Oct 2007
  - 9lb 13 oz - 4.43 Kilos
Other cases - Couple C

- 2 failed IVF – ICSI
  - Count 4 million
  - Motility 15%
  - Live birth Oct 2007
  - 9lb 13 oz - 4.43 Kilos
  - Currently expecting 2nd Pregnancy
Other cases – Irish couples

- 3 couples with 100% antisperm antibodies have conceived successfully in our programme

- 1 couple, count of 3 million, 75% antisperm antibodies, and 2 failed ICSI (advised donor eggs)

- Success with NPT
Other cases – Irish couples

- 2 couples with 1% normal morphology
- Success with NPT
Never ever give up!
Premature Ovarian Failure
Premature Ovarian failure

- April 2008, 35yo G0 P0
- 18-30 day cycle
- DX Premature Ovarian failure
  - Raised FSH 23.7iu
Premature Ovarian failure

- Previous Treatment
  - Clomiphene x5 cycles
  - IUI x 4 cycles
  - IVF
    - Sept 2006 – 1 Follicle – cancelled
    - Oct 2007 – Flare Protocol – No follicles
Premature Ovarian failure

- NPT Plan
  - FoodPrint – IgG food antibodies with Cambridge Nutritional
## Food Sensitivity Test Results

<table>
<thead>
<tr>
<th>Type</th>
<th>Avoid (&gt;60)</th>
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<td>BRUSSEL SPROUT</td>
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<td>CABBAGE</td>
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<tr>
<td>vegetable</td>
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<td>CARROTS</td>
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</table>
Premature Ovarian failure

- NPT Plan
  - FoodPrint
  - D3 2,400iu, Ca, Mag, Probiotics, Omega 3
  - LDN 4.5mg
  - Ovulation induction – clomiphene
  - Bolus HCG 10,000iu
<table>
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<tr>
<th>Date</th>
<th>Description</th>
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<tbody>
<tr>
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**REMINDER:** PLEASE MAKE APPOINTMENT FOR PRACTITIONER FOLLOW-UP
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<tbody>
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<td>15th</td>
<td>be</td>
</tr>
<tr>
<td>16th</td>
<td>be</td>
</tr>
</tbody>
</table>

**Notes:**
- **P** = Peak
- 1, 2, 3 = Fertile Days Following Peak
- **I** = Intercourse
- **BE** = Breast Self-Exam
Pregnancy and Birth Details after NaproTechnology Fertility Treatment

**Name of Parents**

Parents Date of Birth (Mother): 31.08.72  Father: 13.08.74

Gravida: 0  Para: 0  SA: __  IA: __

Live Birth: [ ]  Miscarriage: [ ]

**Live Birth Details**

Child: 1

- **Name:** 
- **Male or Female:** Male
- **Birth Weight:** 8 lbs 13.5 oz
- **Actual Date of Birth:** 26.3.2009
- **Estimated date of delivery:** 5.4.09
- **Weeks of Pregnancy:** __

**Delivery Details**

Induced, NVD, Forceps, Vacuum

C-Section – Planned or Emergency: [ ]

**Weeks of Progesterone Support during Pregnancy:** __

Any problems during Pregnancy? __

Any problems with baby? [ ]

- e.g. Intensive Care after delivery (Days): __
- Heart or breathing problems? __
- Ongoing health problems? __

Comments: __
Premature Ovarian failure

- What Can you do?
  - FoodPrint
  - FertilityPlus
  - Vitamin D3 2,400iu, Omega 3 2000iu
  - LDN 4.5mg
  - DHEA 25 mg TID
  - Alpha Lipoic Acid 300mg daily
Recurrent Miscarriages

- 6 Recurrent Miscarriages
  - Couple 1
  - Case Series
G.W. - 6 Miscarriages

- Dec 04  6.5 years Age 40y.
- DOB Aug ‘64  G0  P0  SA 6 (6-13wks)
- Dx Unexplained Recurrent Miscarriages
- Regular cycles – 28-30 days
- Surgery to remove Uterine Septum
  Sept 04
G.W. - 6 Miscarriages

**NaPro Assessment**

- Low Progesterone – 35.5 nmol/l
- Low B12 – 187 pmol/l
- Under-active Thyroid – TSH 4.42 iu.
Femara 1.25mg daily for 3 days from day 3
HCG 5000 on P+3,5,7,9
B12 4mcg tid
Thyroxine 50mg daily
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**Pre-restoration**

**Post-restoration**

**USE THESE SIGNS: P = PEAK • 1.2.3 = FERTILE DAYS FOLLOWING PEAK • I = INTI**
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 |
| AMP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date | M | H | M | L | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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REMINDER: ORDER NEW CHART, STAMPS AND MAKE APPOINTMENT FOR FOLLOW-UP

USE THESE SIGNS: P = PEAK • 1.2.3 = FERTILE DAYS FOLLOWING PEAK • I = INTERCOURSE BE = BREAST SELF-EXAM
G.W. - 6 Miscarriages

- Conceived with an optimum cycle
G.W. - 6 Miscarriages

- **During Pregnancy**
  - Vaginal Prog 400mg
  - Prednisolone 5mg daily
  - Eltroxin 50mcg daily
  - Folic Acid/ B12

- **EDD 24th March 2006**
G.W. - 6 Miscarriages

- Baby Girl @ 39 weeks gestation
- 6lb 7oz
- Cesarean Section
- Mum and Baby are well!
Discussion

1. Miscarriage Data Jan 04-Apr 08
All couples – 6 recurrent miscarriages

Previous DX  Jan 2004 – April 2008

- 15 conceptions
- 11 couples
<table>
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<th>Excluded</th>
<th>Meet Criteria</th>
<th>Live Birth or pregnant &gt;24Wks</th>
<th>Miscarriage</th>
<th>Success Rate</th>
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<td>pre conception</td>
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<td>Conceived in programme</td>
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<td>Jan 2004 - Apr 2008</td>
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240 Conceptions using NaProTechnology for couples with previously failed IVF

The first 12 years of practice in Galway, Ireland

Dr. Phil Boyle
MICGP MRCGP CNFPMC
Average Age 37 years, 41% aged 38 years or greater
Past Obstetric History 191 Couples

- 46% Previous Live Birth
- 26% Previous Miscarriage
- 28% Never Conceived

74% no previous live birth
Years Trying to conceive, 191 couples previous failed IVF

<table>
<thead>
<tr>
<th>Number of couples</th>
<th>&lt;2yrs</th>
<th>3-4 yrs</th>
<th>5-6yrs</th>
<th>7-9yrs</th>
<th>&gt;10yrs</th>
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<td>16</td>
<td>53</td>
<td>61</td>
<td>45</td>
<td>16</td>
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</table>

Average: 5.7 Range: 1 to 14
191 couples, with 345 Failed IVF

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<th>Failed attempts at IVF</th>
<th>Average</th>
<th>Range</th>
<th>Total</th>
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<td>Failed attempts at Embryo Transfer</td>
<td>1.8</td>
<td>0 to 8</td>
<td>340</td>
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</table>

<table>
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<th>Average</th>
<th>Range</th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td>1.8</td>
<td>1 to 9</td>
<td>345</td>
</tr>
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</table>
Diagnosis Before NaProTechnology, 191 couples with previous failed IVF

- Unexpl Inf: 93
- Unexpl Misc: 16
- Endo: 50
- Lo Prog: 16
- Lo Est: 2
- Not Ov: 12
- Mucus: 3
- Male: 25
- Tubal: 11
- PID: 12
- PCOD: 17
- Fibroid: 12
- Hi FSH: 9
Diagnosis after NaProTechnology, 191 couples previous failed IVF
Medical Treatment, 191 previous IVF

- Other: 41%
- Male: 8%
- Antibiotics: 6%
- Bolus HCG: 18%
- LDN: 30%
- Femara: 20%
- Clomid: 46%
- Prog: 21%
- Luteal HCG: 43%
- Mucus: 36%
- FFI: 16%

Percent of couples
Note

- 30 out of 191 conceived with FFI (15.7%)!
Months of Treatment to conceive, 191 previous failed IVF

- One: 6
- Two: 13
- Three: 9
- Four: 7
- Five: 8
- Six: 10
- Seven: 9
- Eight: 8
- Nine: 13
- Ten: 13
- Eleven: 13
- Twelve: 15
- Thirteen: 17
- Fourteen: 10
- Fifteen: 6
- >20: 17

Total: 191
TWINS

- 4 out of 171 Live Births  = 2.3%
- 4 out of 240 conceptions = 1.6%
- No Triplets in this group.
Final Outcomes from 191 Couples, previous failed IVF

- 75% Live Birth/Ongoing
- 22% Miscarriage
- 3% Ectopic
Miscarriage rate, 240 conceptions previous failed IVF

<table>
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<th>Female Age</th>
<th>% Percent</th>
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<td>&lt;37</td>
<td>22.7</td>
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<tr>
<td>38-41</td>
<td>36.8</td>
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<td>42-45</td>
<td>39.1</td>
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<tr>
<td>all ages</td>
<td>28</td>
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</table>
Panic !.....You are 35 !
IVF Live Birth Rate 2005 HFEA UK

- 34 and under: 30%
- 35-37: 24%
- 38-39: 18%
- 40-42: 10%
- 43-44: 3%
- 45+: 1%
Live Birth Rate - IVF and Natural

- 34 and under: 80%
- 35-37: 30%
- 38-39: 24%
- 40-42: 18%
- 43-44: 10%
- 45+: 1%

IVF Live Birth Rate vs. Natural Live Birth Rate
Live Birth Rate - IVF and Natural

IVF Live Birth Rate vs Natural Live Birth Rate

- 34 and under: 30% (IVF) vs 80% (Natural)
- 35-37: 24% (IVF) vs 70% (Natural)
- 38-39: 18% (IVF) vs 60% (Natural)
- 40-42: 10% (IVF) vs 40% (Natural)
- 43-44: 3% (IVF) vs 17% (Natural)
- 45+: 1% (IVF) vs 5% (Natural)

Age Groups: 34 and under, 35-37, 38-39, 40-42, 43-44, 45+
Don’t Delay .....IVF Quickly!

- There is a tendency to rush into IVF without taking the time to establish a diagnosis and restore optimum conditions for natural conception to occur.
Don’t Delay .....IVF Quickly!

- No Progesterone assessment
Don’t Delay .....IVF Quickly!

- No Progesterone assessment
- No assessment of Ovulation by ultrasound
Don’t Delay .....IVF Quickly!

- No Progesterone assessment
- No assessment of Ovulation by ultrasound
- No Laparoscopy
Don’t Delay …..IVF Quickly!

- No Progesterone assessment
- No assessment of Ovulation by ultrasound
- No Laparoscopy
- No ovulation Induction
Don’t Delay .....IVF Quickly!

- No Progesterone assessment
- No assessment of Ovulation by ultrasound
- No Laparoscopy
- No ovulation Induction
- Inadequate trial of natural conception
Don’t Delay …..IVF Quickly!

- IVF has not been shown to be superior to expectant management for unexplained infertility – Cochrane Jan 05

- IVF is only proven to be effective for blocked fallopian tubes, and severe male factor infertility – NICE 2004
Slow Down....
It is better to avoid IVF altogether!

- Natural conception rates are superior in every age range
- What is the rush in pursuing an inferior success rate?
Slow Down…
It is better to avoid IVF altogether!

- Natural conception rates are superior in every age range
- What is the rush in pursuing an inferior success rate?
- Establish a diagnosis
- Relaxed calm environment
- Aim for 12 good cycles
Slow Down....
It is better to avoid IVF altogether!

- A Child is a fruit of your Love
Slow Down....
It is better to avoid IVF altogether!

- A Child is a fruit of your Love
- Not your Labour!
There are two ways to live your life.
One is as though nothing is a miracle.
The other is as though everything is a miracle.

Albert Einstein (1879–1955)