
Kirsten Wolfe
FERTILE LIFE METHOD


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Welcome
Take a seat, grab a cuppa
and relax

GET THE MOST OUT OF THIS COURSE

If you hang out with me for too long I'll brainwash you into believing in yourself, knowing you can achieve anything & becoming a rockstar fertility practitioner

GRATITUDE

- Randine Lewis – My mentor and inspiration
- My Patients & Practitioners
- My own clinical practice – 23 years
- Jane Lyttleton
- Dr Nick Lolatgis & Dr David Wilkinson
- Lee Rubin-Hullender
- Clare Pyers

The MCM tribe

- Each member of the tribe is an integral part of **MCM**, we work together, no competition & everyone is encouraged to be uniquely them!

THE FERTILE LIFE METHOD

- Becoming a Fertile life detective
- Knowing your own uniqueness and gifts as a fertility acupuncturist
- Treating from the Heart Space – following your unconscious knowing (intuition) when treating
- The Fertile Life Fertility Program - The power of our treatment plan is that it draws on the best of both eastern and western medicine in order to enhance fertility
- Learning the skill of treating with highly emotional fertility patients – what is your role?
- Knowing fertility inside and out!

The importance of the practitioner

SHEN to SHEN Connection

"I've been to lots of practitioners and the difference with you is that I know you have invested in my story, been on the journey with me, provide a supportive space and above all gave me hope"

FERTILITY IS YOUR NATURAL STATE!

"Your body has the innate natural potential to create a healthy baby. All you have to do is put it in the right place to do so both physically and emotionally" Randine Lewis

Healthy egg + healthy sperm+ healthy uterine lining = conception

A WORD ON PROTOCOLS…

Chinese Medicine is a WHOLISTIC system, it is not “this set of points does this in the body”

Pre and post tx for transfer…..

- Does the patient eat a healthy diet?
- Do they express their emotions, or did someone just die in the familY or did they have a positive amazing day?
- What is their menstrual health like?
- Was there rapport with the practitioner giving treatment?
- Was the room warm and inviting or sterile?
- Was the practitioner treating from the heart that day or having a bad day and doubting themselves as a practitioner?

A WORD ON PROTOCOLS…

The Effects of Adjuvant Whole-Systems Traditional Chinese Medicine on In Vitro Fertilization Live Births: A Retrospective Cohort Study.

Rubin Lee Hullender, Opsahl Michael, Wiemer Klaus, Humphrey Angela, Allen Patrick, Mist Scott, and Ackerman Deborah.
http://online.liebertpub.com/doi/full/10.1089/acm.2014.5029.abstract

Acupuncture for Fertility: What's the Evidence?" on Rosefinch Academy
https://courses.rosefinchacademy.com/

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Non-Donor Cycles			
	Usual IVF Care Group	Day of embryo transfer acupuncture Group	Whole Systems TCM Group
Number in group	580	370	119
Birth rate	48.2%	50.8%	**61.3%***
Miscarriage rate	10.7%	7.3%	5.8%
Biochemical Pregnancy rate	8.4%	9.5%	**2.5%***
Donor Cycles			
Number in group	104	37	21
Birth rate	62.5%	59.5%	**85.7%***
Miscarriage rate	11.5%	16.2%	4.8%
Biochemical Pregnancy rate	8.7%	8.1%	4.8%

does individualized pre an dpost embyro transfer acupuncture affect live birth rates

Does individualised pre and post embryo transfer acupuncture affect live birth rates"

Kate Philippi D.A.O.M., M.SC, Lamya A. Kamel, L.Ac, Dipl., OM, DAOM, Lee E. Hullender Rubin, D.A.O.M., M.SC., Roohi Jeelani, MD, Tyler Soy, MA

Objective

To assess the effect of individualized, day of embryo transfer acupuncture on Frozen Embryo Transfer (FET) live birth rates compared with no acupuncture.

Materials and Methods

In this retrospective cohort study, 2,330 patients completed an FET at Vios Fertility Institute, Chicago, IL, from May 2018 – May 2021. Individualized acupuncture therapy was provided on-site, for 30 minutes before and immediately after embryo transfer (ET) by licensed acupuncturists (ACU group) in 579 records, and 1,751 elected FET alone (FET group). Our main outcome measure was live birth rate. Secondary outcomes included biochemical, miscarriage, and ectopic rates. Groups were compared by age, diagnosis, number of cycles, ET day, and number of autologous embryos transferred. Means were compared using analysis of variance and proportions with Chi-square and logistic regression.

Results

Demographics differed between groups on several variables. See Table 1. Individualized acupuncture pre- and post-ET was associated with more live births (Odds Ratio (OR)=1.55, 95% Confidence Interval (CI) 1.29-1.88, p<0.00001) and fewer biochemical pregnancies (OR=0.58, 95% CI 0.41-0.83, p=0.002). There was no difference between groups on the outcomes of miscarriage and ectopic pregnancy.

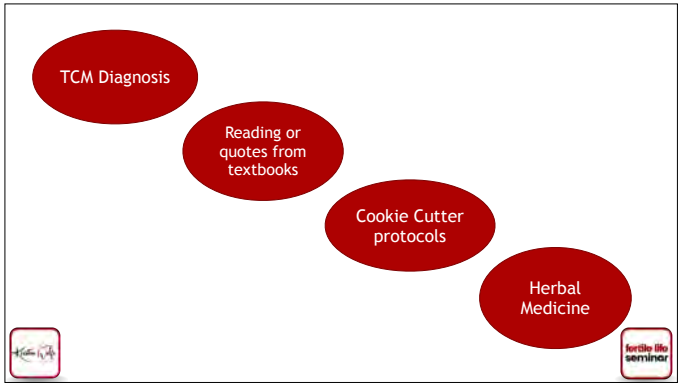
Conclusions

Individualized acupuncture on the day of embryo transfer was associated with 55% increase in FET live births and 42% reduction in biochemical pregnancies compared with FET alone.

Impact Statement

Individualized day of embryo transfer acupuncture was associated with significant benefit to patients undergoing FET

https://www.fertstert.org/article/S0015-0282(22)01277-8/fulltext



DAY ONE

- The Fertile Life Method
- Fertile Life Fertility detective
- Female Reproductive Health
- Male Reproductive Health

DAY TWO

- BBT Charting
- Treating Natural Cycles with TCM
- Interpreting and advising of fertility tests
- Recurrent Miscarriage

DAY THREE

- IVF
- TCM & IVF
- Advancements in IVF
- NK Cells and DQ alpha Gene
- Question hour


SELF AWARENESS
As a Fertility Practitioner I believe that in order to help our patients we need to know our own “stuff” & not bring it into the room. Our job is to be in our own hearts to allow them to be in theirs. We also must endeavor to uncover every stone
fertile life seminar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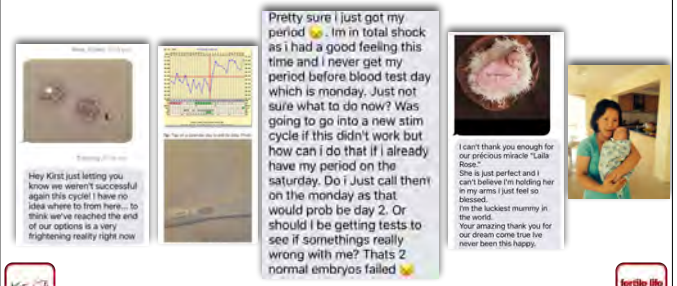
JOY & DISAPOINTMENT



DO YOU UNDER TREAT?

* If money was not object how many treatments would you recommend?
* Unhappy patients = bad word of mouth
* What's stopping you booking enough tx's to ensure conception
* We regularly service our car, our bodies are a lot more complicated than a car and need regular "servicing"

EXPAND YOUR THINKING

* Patients can sabotage their own fertility journey
* Patients can think they are not getting better, when they actually are. Your job is to make them aware of the changes
* “How long until until I’m pregnant?”

PROVIDE EXPERT ADVICE

* To formulate a treatment plan with all our Chinese Medicine diagnostic tools including explaining blood tests, ultrasounds and semen analysis & making recommendations and ultimately why you believe they haven’t achieved pregnancy
* Acupuncture + Herbs + Supps + Referrals.
* To educate clearly what is expected of them through out the process of the treatment plan.
* To educate them of your expectations of the treatment plan, answer their questions honestly.
* **HOPE is the essential key!**

YOUR ROLE IS VITAL

* First and foremost, you are their advocate and partner in navigating the often confusing and overwhelming world of fertility treatment.
* Help them to understand their test results, the IVF process, and their body's fertility cycles.
* Provide emotional support during what can be a trying and emotional time. You offer reassurances and explanations, as well as a listening ear for when they need to vent. Know your limitations
* Referring patients to other specialists when necessary.
* Identify red flags and make appropriate referrals to ensure that your patients receive the best possible care.
* Identify potential problems and offering advice

YOUR ROLE IS VITAL

* As an acupuncturist, it is not your job to take responsibility for what your patients do outside of your treatment room. This includes taking herbs, sticking to treatment protocol, getting tests required etc.

* It is also not your job to force a pregnancy. You should remain neutral on your patients beliefs, values or decisions they make regarding their fertility.

YOUR ROLE IS VITAL

* You are not their friend, but rather a professional who is there to provide a service. In other words, it is not your job to be in a counsellor/psychologist role.

* While it is important to build rapport with your patients, you must remember that boundaries must be kept in place in order to maintain a professional relationship.

YOUR TREATMENT STYLE IS PERFECT!

Everyone is unique

All treatment styles are valid

RAPPORT * HOPE * RESULTS!!

WESTERN MEDICINE
+
CHINESE MEDICINE
=
RESULTS

FERTILE LIFE METHOD

A complete picture

WESTERN MEDICINE

- Western medicine diagnosis
- Blood tests
- Ultrasound/Surgery
- IVF

CHINESE MEDICINE

- Chinese Medicine Diagnosis
- Acupuncture
- Chinese Herbs
- BBT Charting

LEAVE NO STONE UNTURNED

Sometimes the hidden gem is amongst all the tests.

Finding what is being missed is the basis of the

FERTILE LIFE DETECTIVE

- Treat **CONSTITUTIONAL PATTERNS** throughout entire cycle – IT IS VERY SIMPLE!
- Follow menstrual phases treating alongside each phase
- Modify treatment principle as required

FERTILITY DETECTIVE QUESTIONS

KEEP IT SIMPLE & UNCOMPLICATED

FOLLOW THE SYSTEM!

FERTILITY DETECTIVE

Being able to tell your patient why they are not pregnant or what investigations you recommend to find the answer.

What steps to take & how long it will take

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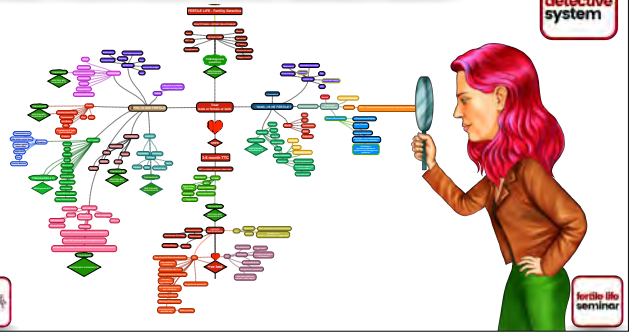
THE FERTILE LIFE MIND-MAP

the detective system



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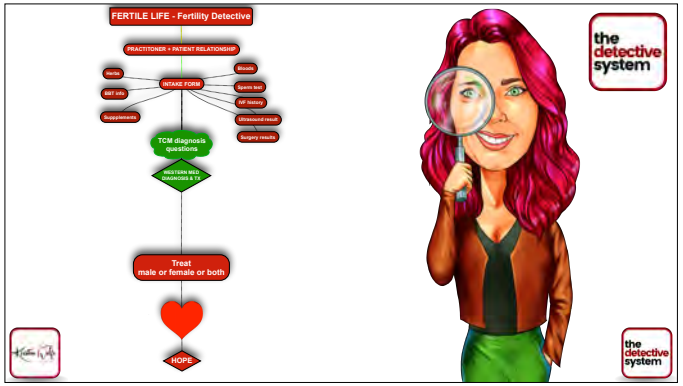
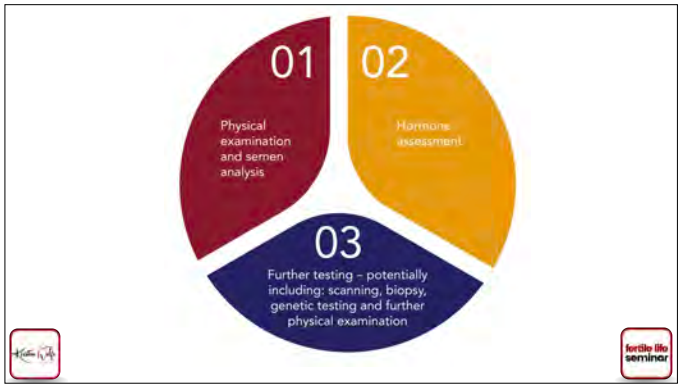

FERTILE LIFE - Fertility Detective
PRACTITONER + PATIENT RELATIONSHIP
INTAKE FORM
Herbs
Bloods
BBT info
Sperm test
IVF history
Supplements
Ultrasound result
Surgery results
TCM diagnosis questions
WESTERN MED DIAGNOSIS & TX
Treat male or female or both
HOPE
the detective system
the detective system


01
Physical examination and semen analysis
02
Hormone assessment
03
Further testing – potentially including: scanning, biopsy, genetic testing and further physical examination
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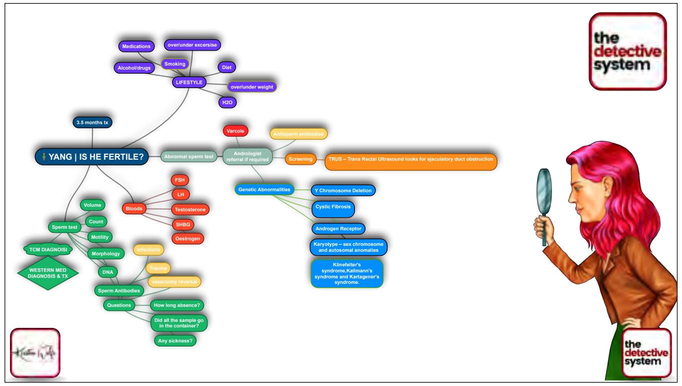
the detective system
YANG | IS HE FERTILE?
3.5 months tx
LIFESTYLE
Medications
over/under excersise
Alcohol/drugs
Smoking
Diet
over/under weight
H2O
Abnormal sperm test
Andrologist referral if required
Varcole
Antisperm antibodies
Screening
TRUS – Trans Rectal Ultrasound looks for ejaculatory duct obstruction
Genetic Abnormalities
Y Chromosome Deletion
Cystic Fibrosis
Androgen Receptor
Karyotype – sex chromosome and autosomal anomalies
Klinefelter's syndrome,Kallmann's syndrome and Kartagener's syndrome.
Bloods
FSH
LH
Testosterone
SHBG
Oestrogen
Sperm test
Volume
Count
Motility
Morphology
DNA
Sperm Antibodies
Infections
Trauma
vasectomy reversal
Questions
How long absence?
Did all the sample go in the container?
Any sickness?
TCM DIAGNOISI
WESTERN MED DIAGNOSIS & TX
the detective system


01
Hormone assessment
02
Tubal and uterine assessment
03
Immunological screening
04
Blood clotting disorders
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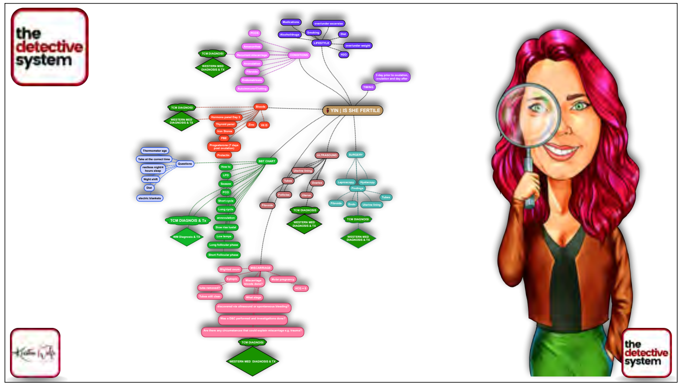
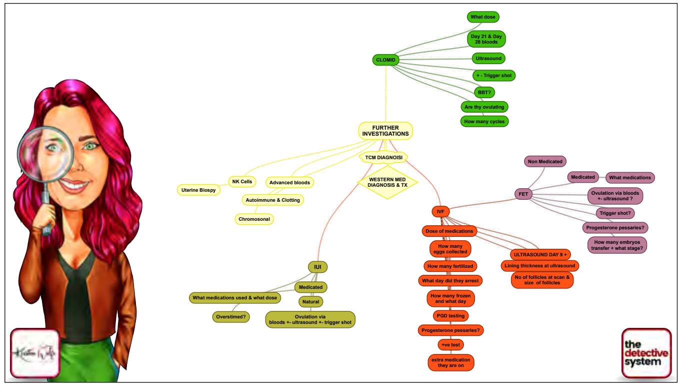
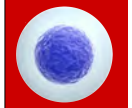

the detective system
YIN | IS SHE FERTILE
CONDITIONS
PCOS
Amenorrhea
Recurrent miscarriage
Anovulation
Fibroids
Endometriosis
Autoimmune/Clotting
TCM DIAGNOISI
WESTERN MED DIAGNOSIS & TX
LIFESTYLE
Medications
Alcohol/drugs
Smoking
over/under excersise
Diet
over/under weight
H2O
TIMING
3 day prior to ovulation, ovulation and day after
Bloods
Hormone panel Day 3
Thyroid panel
Iron Stores
FBE
Progesterone (7 days post ovulation)
Prolactin
Zinc
Vit D
BBT CHART
Questions
Thermometer age
Take at the correct time
restless night/4 hours sleep
Night shift
Diet
electric blankets
How to
LPD
Seesaw
PCO
Short cycle
Long cycle
annovulation
Slow rise luetal
Low temps
Long follicular phase
Short Follicular phase
TCM DIAGNOIS & Tx
WM Diagnosis & TX
ULTRASOUND
Uterine lining
Tubes
Ovaries
Follicles
Uterus
Fibroids
TCM DIAGNOSIS
SURGERY
Laproscopy
Hystacopy
Findings
Tubes
Fibroids
Endo
Uterine lining
MISCARRIAGE
Blighted ovum
Eptopic
Miscarriage bloods done?
Molar pregnancy
tube removed?
Tubes still clear
HCG = 0
What stage
discovered via ultrasound or spontaneous bleeding?
Was a D&C performed and investigations done?
Are there any circumstances that could explain miscarriage e.g. trauma?
WESTERN MED DIAGNOSIS & TX
the detective system


CLOMID
What dose
Day 21 & Day 28 bloods
Ultrasound
+ - Trigger shot
BBT?
Are thy ovulating
How many cycles
FURTHER INVESTIGATIONS
TCM DIAGNOISI
WESTERN MED DIAGNOSIS & TX
Uterine Biospy
NK Cells
Advanced bloods
Autoimmune & Clotting
Chromosonal
IUI
Medicated
What medications used & what dose
Natural
Overstimed?
Ovulation via bloods +- ultrasound +- trigger shot
IVF
Dose of medications
How many eggs collected
How many fertilized
What day did they arrest
How many frozen and what day
PGD testing
Progesterone pessaries?
+ve test
extra medication they are on
ULTRASOUND DAY 9 +
Lining thickness at ultrasound
No of follicles at scan & size of follicles
FET
Non Medicated
Medicated
What medications
Ovulation via bloods +- ultrasound ?
Trigger shot?
Progesterone pessaries?
How many embryos transfer + what stage?
the detective system

Change your viewpoint

THE BASICS

- Don't lose yourself in the diagnosis or excess of information



ARE THEY TIMING RIGHT?

* How does she know that she is ovulating? OPK? Period tracker? BBT? Bloods?
* How often are they having sex/insemination
* Are they timing correctly through the fertile window?
* Is the male saving the sperm thereby killing it

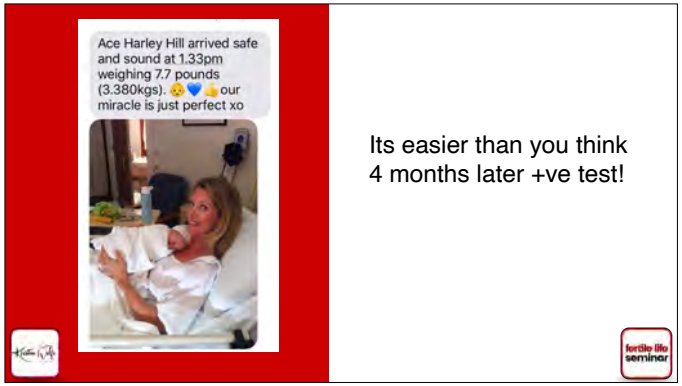
CASE STUDY - What would you do?

CASE STUDY SH

- 36 years old, fit, clean eater
- Px has been seeing another acupuncturist for 1.5 years -7/2012
- NK cells high
- 10/11 – 9wk scan no heart beat – D&C
- 2/2012 – 6wk natual miscarriage
- 7/2012 – slow heartbeat at 7 weeks – D&C
- 10/2012 – No gestational sac at 6 weeks, natural miscarriage
- 7/2013 – IVF FET, Slow rise hcg, small gestational sac, heavy bleeding 6wks D&C
- 1/2014 – Natual preg, slow rise HCG, misscarriage

CASE STUDY SH

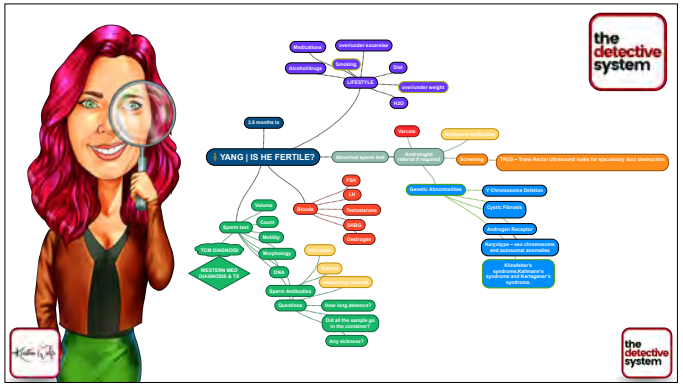
- **IVF**
- 10 eggs, 8 fertilized, 1 trans – 1 frozen
- 6 eggs, 3 fertilized, 1 frozen
- Clexane, intralipid, dexamethosome
- Ivf dc said sperm is amazing
- **PERIOD**
- 28 days
- Perfect biphasic BBT charts
- Perfect period except for period pain for 24 hrs
- **YANG XU**



Its easier than you think
4 months later +ve test!

SPERM

The missing link



SPERM IS DECLINING

50% reduction in sperm quality in just 18 years between 1977 and 1995.

32% reduction of sperm count with parallel reductions in both motility and morphology.

Sperm counts of men in North America, Europe, Australia and New Zealand are plunging, according to a new analysis July 2017
Among these men there has been a **52% decline in sperm concentration** and a **59% decline in total sperm count** over a nearly 40-year period ending in 2011, the analysis, published in the journal Human Reproduction

In 2012, French scientists confirmed it once more: the male semen concentration **continues to fall by 2% per year.** They compared the main characteristics of fertile sperm: the mobility, the quantity and morphology (appearance) of sperm in the ejaculate between 1989 and 2005.

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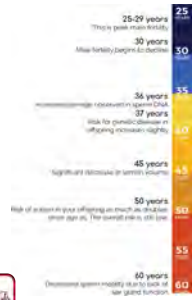
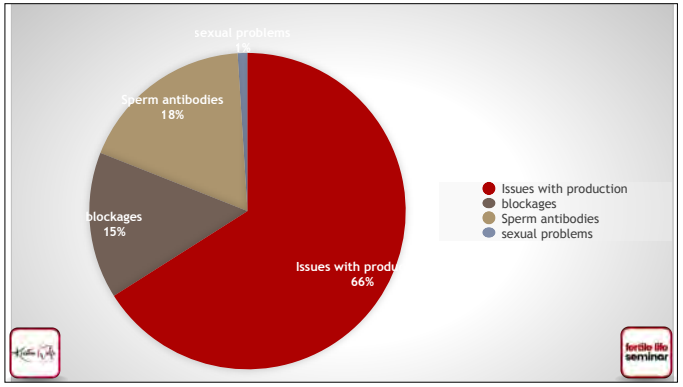
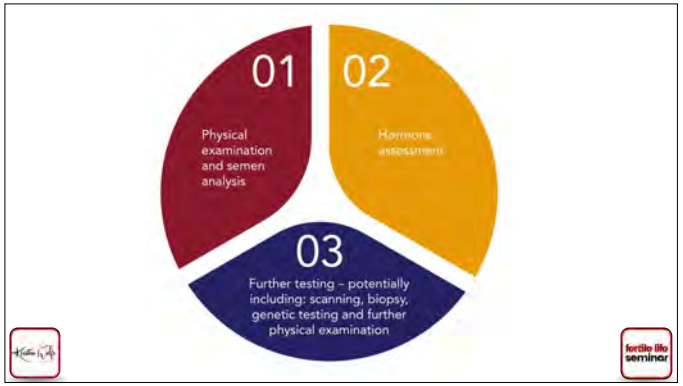
TCM CAN HELP


25-29 years
30 years
36 years
37 years
45 years
50 years
60 years
25
30
35
40
45
50
55
60


What happened to Paul ?
I've heard he's hooked on TCM now !

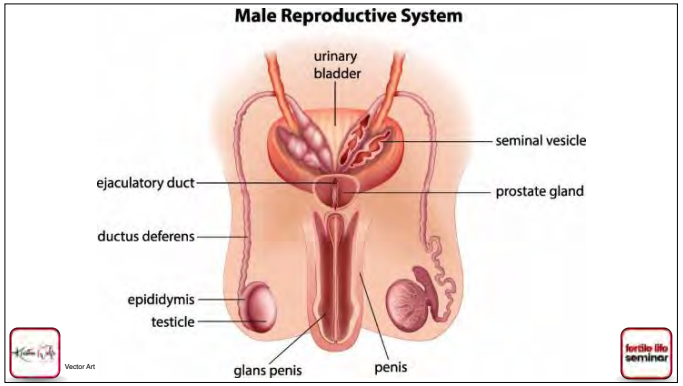

sexual problems
1%
Sperm antibodies
18%
blockages
15%
Issues with prod
66%
Issues with production
blockages
Sperm antibodies
sexual problems

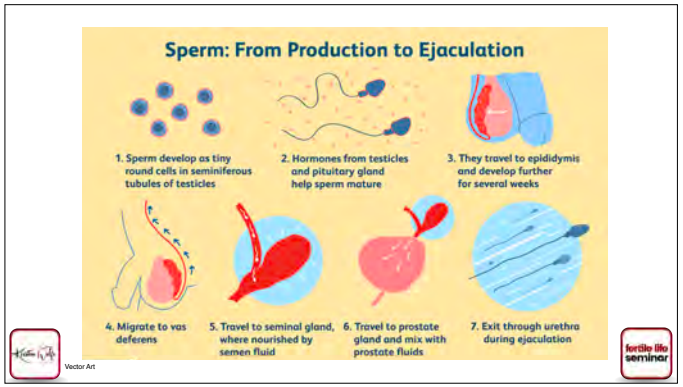


WESTERN MEDICINE TREATEMENT

- GENERAL APPROACH TO TX
  - PSYCHOLOGICAL TX
  - TIMING & FREQUENCY OF SEX
- SPERM TEST EVULATION
  - MILD FACTOR INFERTILITY 10-15motility - No western tx
  - MODERATE 20-40% MOTITILY IUI OR IVF ICSI
- SURGERY
  - VARICOCELE
  - VAS DEFERENS OBSTRUCTION

GnRH or gonadotrophins


Male Reproductive System
urinary bladder
seminal vesicle
ejaculatory duct
prostate gland
ductus deferens
epididymis
testicle
glans penis
penis
Vector Art
fertile life seminar


Sperm: From Production to Ejaculation
1. Sperm develop as tiny round cells in seminiferous tubules of testicles
2. Hormones from testicles and pituitary gland help sperm mature
3. They travel to epididymis and develop further for several weeks
4. Migrate to vas deferens
5. Travel to seminal gland, where nourished by semen fluid
6. Travel to prostate gland and mix with prostate fluids
7. Exit through urethra during ejaculation
Vector Art
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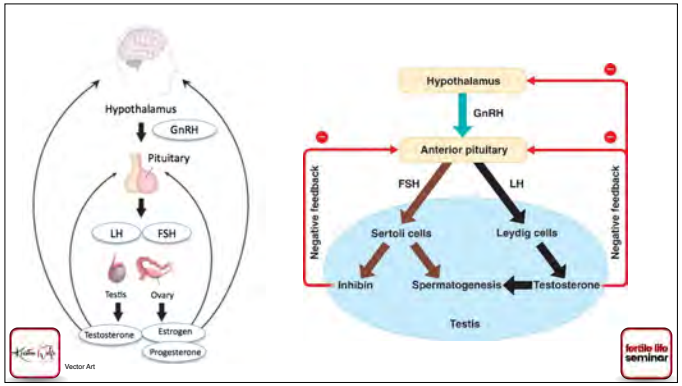


SEMINIFEROUS TUBULE

WHERE SPERM PRODUCTION TAKES PLACE

Sperm is made from precursor cells termed germ cells that give rise to approximately 120 million sperm daily in a process termed spermatogenesis that takes approximately 64 days.

Spermatozoa are not entirely complete in their maturation upon leaving the seminiferous tubules, having still to develop the tails that give them their motility.

SEMINIFEROUS TUBULE

GERM CELLS

Within the seminiferous tubule, germ cells are arranged in a highly ordered sequence from outside to inside.

Each Germ Cells makes 4 sperm with the help of Sertoli Cells.

Although they do not have testosterone receptors they will "die" if chronic low testosterone.

SERTOLI CELLS

Stimulated by **FSH** to spermogenisis. FSH stimulates the Sertoli cells to secrete androgen-binding protein into the lumen of the seminiferous tubules. Binding of testosterone in the lumen provides a local testosterone supply for the developing spermatogonia.

The developing spermatogonia rely on the Sertoli cells for all of their nourishment. The **blood-testis barrier** formed by the Sertoli cells effectively isolates the developing spermatogonia, spermatocytes, spermatids and mature spermatozoa from blood.

Sertoli cells also produce **testicular fluid**, including a protein that binds to and concentrates **testosterone**, which is essential for the development of the spermatozoa.

LEYDIG CELLS

Stimulated by **LH**.

Leydig cells are 'interstitial' cells (as they lie between the tubules).

The **Leydig cells** make and secrete **testosterone**, in response to LH (**luteinising hormone)** from the pituitary.

Testosterone promotes production of spermatozoa, secretion from the accessory sex glands, and acquisition of male secondary characteristics. This process does not start until puberty when LH stimulates the **Leydig cells** to produce testosterone.

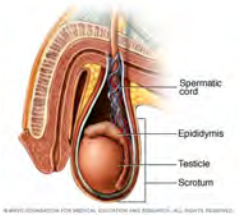
EPIDIDYMIS 20 foot long

Like a “fallopian tube for sperm”
Maturation takes 14 days.

Sperm are flushed down this tube by microvilli as they continue to mature.

Sperm begin to expire after 4 weeks and absorbed by the body

During ejaculation they are forced through the Vas Deferens and come into contact with seminal fluid.



Vector Art

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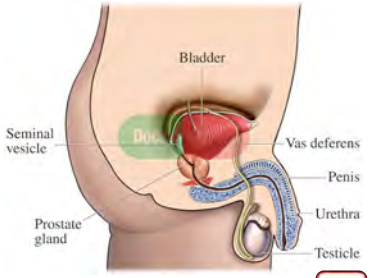
VAS DEFERNS

Carry sperm from tail of epididymis to seminal vesicle.

Prostate Secretes an acidic, watery fluid that comprises 35% semen volume.

Proteolytic enzymes in prostatic fluid cause liquefaction shortly (20 – 25 min)after exiting urethra.



Vector Art

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A normal sperm has:

- A smooth, oval-shaped head that is 5-6 micrometers long and 2.5-3.5 micrometers wide (less than the size of a needlepoint)
- A well-defined cap (acrosome) that covers 40% to 70% of the sperm head
- No visible abnormality of neck, midpiece, or tail
- No fluid droplets in the sperm head that are bigger than one-half of the sperm head size
- Acrosome – contains hydrolysing enzymes that make it possible for sperm to penetrate egg in-vivo (in IVF/ICSI the acrosome is removed if present)

Parameter	WHO 1980	WHO 1987	WHO 1992	WHO 1999	WHO 2010
Volume	ND	≥2ml	≥2ml	≥2ml	≥2ml
Concentration	20-200	≥20 million/ ml	≥20 million/ ml	≥20 million/ ml	≥15 million/ ml
Motility	≥60%	>50%	≥50%	≥50%	≥39%
Progressive motility	≥25	≥25%	≥25%	≥50%	≥32%
Normal forms	80%	50%	20%	(14) strict criteria	4%

Parameter	NORMAL	BOARDERLINE	PATHOLOGICAL
Volume	2-6ml	1.5-1.9ml	<1.5ml
Concentration 1milliom/ml	20-250	10-20	<20
Total sperm concentration	>80	20-79	≤20
Motility	≥60%	≥40-59%	<40%
Progressive motility	≥50%	≥35-49%	<35%
Normal forms	≥14%	4-13%	<4%

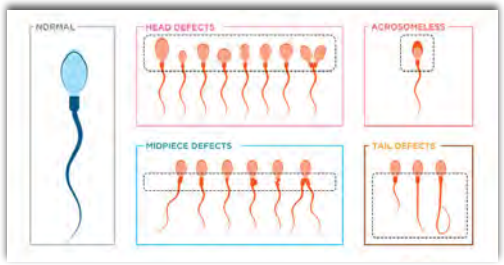
WHO RECOMMENDATIONS

* **For those men that spontaneously fathered a child within a 12 month period, most men (the 25th-75th centile) fell within the ranges as follows:**
  * Semen volume: 2.2 – 4.2ml
  * Sperm concentration: 36 – 100 million per ml
  * Total sperm number: 101 – 336 million per ejaculate
  * Total motility: 55 – 70%
  * Progressive motility: 49 – 65%
  * Normal morphology: 10.5 – 16%
* **If the sperm tests show morphology to be 4% normal forms, it means your patient is in the lowest 5% of what is considered normal.**
* **It may take one to fertise the egg but it takes millions to get the job done!**

SPERM CONCENTRATION

Description	Sperm Concentration in Ejaculate
Normal	50 million to 120 million sperm/mL
Mild Oligospermia	10 million to 20 million sperm/mL
Moderate Oligospermia	5 million to 10 million sperm/mL
Severe Oligospermia	0 to 5 million sperm/mL
Cryptoozospermia	0-rare sperm
Azoospermia	0 sperm

SPERM MORPHOLOGY 14% MINIMUM



Vector Art

SPERM MORPHOLOGY

14% Morphology at a minimum!!

According to WHO criteria, a normal ejaculate must have at least 30% normal sperm.

For the stricter criteria, fertile men have > 14% normal forms in their semen and men with < 4% of normal forms are subfertile.

According to Kruger's criteria, IVF outcome was suboptimal when normal sperm morphology was less than 14% and worst if it was under 4%.

The sperm deformity index is a more reliable predictor of the outcome of fertilization in vitro than the proportion of normal sperm morphology.

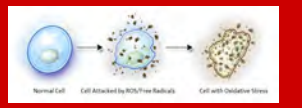
DNA DAMAGE

Factors contributing to sperm DNA damage can be both internal and external

Damage to sperm DNA can lead to serious consequences for fertility, such as;

- Impaired fertilization,
- poorer embryo and blastocyst development,
- lower implantation rates and
- higher instances of miscarriage.

Factors contributing to sperm DNA damage can be both internal and external



ROS/Free Radicals cause damage to DNA, proteins and lipids – which are all essential in sperm production

Vector Art

DNA FRAGMENTATION

* Sperm DNA fragmentation increased progressively with age
* Fragmentation was also higher in men who consumed more than 3 cups of coffee per day
* Shorter abstinence interval is associated with decreased sperm DNA fragmentation, increased semen total antioxidant capacity and improved success with FSH/IUI
* Vit D 1gm and Vit C reduces sperm DNA fragmentation
* Men with high fat intake had lower sperm counts
* Men with high Omega-3 intake had higher normal sperm morphology
* Men with higher Reactive oxygen species scores had increased DNA fragmentation and decreased motility

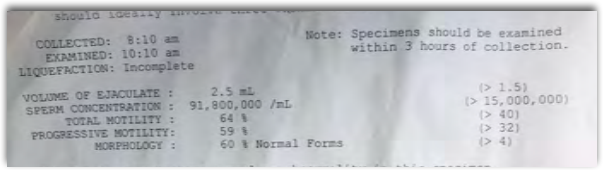
DNA FRAGMENTATION

* Unexplained infertility and poor fertilization rates and subsequent embryo development and miscarriage are affected by sperm DNA quality.
* The standard semen analysis (sperm concentration, motility or morphology), does not analyse the DNA quality.
* Evidence suggests that the quality of sperm DNA packaging is important for fertility. High levels of reactive oxygen species and oxidative stress are known to cause sperm DNA to fragment
* Sperm DNA is one of the most important factors when it comes to getting pregnant. Up to 80% of couples with unexplained infertility have problems in their sperm DNA

CONCEPTION SPERM VALUES

* Semen volume: 2.6 ml
* Sperm concentration: 64 million per ml
* Total sperm number: 196 million per ejaculate
* Total motility: 62%
* Progressive motility: 57%
* Normal morphology: 14-30%

AMAZING SPERM TEST



COLLECTED: 8:10 am
EXAMINED: 10:10 am
LIQUEFACTION: Incomplete

Note: Specimens should be examined within 3 hours of collection.

VOLUME OF EJACULATE :	2.5 mL	(> 1.5)
SPERM CONCENTRATION :	91,800,000 /mL	(> 15,000,000)
TOTAL MOTILITY :	64 %	(> 40)
PROGRESSIVE MOTILITY:	59 %	(> 32)
MORPHOLOGY :	60 % Normal Forms	(> 4)

GREAT SPERM TEST

COLLECTED: 1:00 pm
EXAMINED: 1:30 pm
LIQUEFACTION: Complete

Note: Specimens should be examined within 3 hours of collection.

VOLUME OF EJACULATE :	5.5 mL	(> 1.5)
SPERM CONCENTRATION :	553,000,000 /mL	(> 15,000,000)
TOTAL MOTILITY :	49 %	(> 40)
PROGRESSIVE MOTILITY:	48 %	(> 32)
MORPHOLOGY :	15 % Normal Forms	>=4

COMMENT: These parameters reveal no abnormality in this specimen.
If there are consistent abnormalities in the semen analysis, referral to a specialist andrology unit/laboratory is recommended

NOTE NEW REFERENCE RANGES
The reference ranges for semen analysis have been changed to those recommended in the 'WHO laboratory Manual for the examination and processing of human semen' Fifth Edition 2010 World Health Organisation.

GOOD SPERM TEST

Name of Test: SEMINAL FLUID, INFERT.
Requested: 26/11/2021 Collected: 01/12/2021 Reported: 03/12/2021
11:41

SEMINAL FLUID EXAMINATION FOR INFERTILITY

NOTE: Because of inherent variability in seminal indices, assessment should ideally involve three examinations.

COLLECTED: 2:50 pm
EXAMINED: 3:35 pm
LIQUEFACTION: Complete

VOLUME OF EJACULATE :	3.0	mL	(>=1.5)
SPERM CONCENTRATION :	144,900,000	/mL	(>=15,000,000)
TOTAL MOTILITY :	41	%	(>=40)
PROGRESSIVE MOTILITY:	39	%	(>=32)
MORPHOLOGY :	9	% Normal Forms	(>=4)

COMMENT: These parameters reveal no abnormality in this specimen.
If there are consistent abnormalities in the semen analysis, referral to a specialist andrology unit/laboratory is recommended

VERY POOR SPERM TEST - CITY FERT

Semen Analysis

Sample Date: 17/09/2015 Time Produced: 11:30 Time Analysed: 11:45 Days Abstinence: 3

	Result		Lower Reference Range *
Volume:	4.9	(ml)	1.5 (ml)
pH:	7.5		> 7.2
Count:	7.7	(x10 ^{6}/ml)	15 (x10 ^{6}/ml)
Normal Morphology	2	(%)	4 (%)
Motility			
- Overall	30	(%)	40 (%)
- Progressive Motility	17	(%)	32 (%)
- Non Progressive Motility	13	(%)	
- Immotile	70	(%)	
Total Motile Count	11.3	(x10 ^{6})	

Anti-Sperm Antibodies

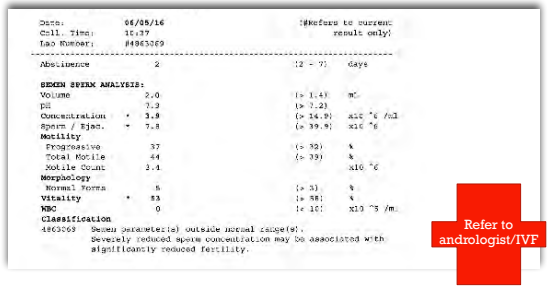
Anti-Sperm Antibodies:	NOT PERFORMED (Sperm Mar IgG Test)	Result N/A

Sperm DNA Fragmentation Index

DNA Fragmentation:		Result
DNA Fragmentation Range:	Not Performed	NOT PERFORMED

Refer to andrologist/IVF

VERY POOR SPERM TEST



Date: 06/05/16 (#Refers to current
Coll. Time: 16:37 result only)
Lab Number: #4963069

Abstinence		2	(2 - 7)	days
SEMEN SPERM ANALYSIS:				
Volume		2.0	(> 1.4)	mL
pH		7.9	(> 7.2)	
Concentration	*	3.8	(> 14.9)	x10 ^6 /mL
Sperm / Ejac.	*	7.8	(> 39.9)	x10 ^6
Motility				
Progressive		37	(> 32)	%
Total Motile		44	(> 39)	%
Motile Count		3.4		x10 ^6
Morphology				
Normal Forms		6	(> 5)	%
Vitality	*	83	(> 58)	%
WBC		0	(< 1.0)	x10 ^6 /mL

Classification
4963069 Semen parameter(s) outside normal range(s).
Severely reduced sperm concentration may be associated with significantly reduced fertility.

Refer to andrologist/IVF

VERY POOR SPERM TEST - CITY FE

SEMINAL FLUID EXAMINATION FOR INFERTILITY

NOTE: Because of inherent variability in seminal indices, assessment should ideally involve three examinations.

COLLECTED: 3:30 pm
EXAMINED: 4:30 pm
LIQUEFACTION: Complete

VOLUME OF EJACULATE :	4.0 mL	(>=1.5)
SPERM CONCENTRATION :	<100 000/ml mL	(>=15,000,000)
TOTAL MOTILITY :	Insufficient spermatozoa present for an accurate assessment of motilit y.	
MORPHOLOGY :	Insufficient spermatozoa to perform morphology.	

COMMENT: Note abnormal value(s) in this specimen.
One spermatozoan seen per 50HPF.
If there are consistent abnormalities in the semen analysis, referral to a specialist andrology unit/laboratory is recommended

NOTE NEW REFERENCE RANGES
The reference ranges for semen analysis have been changed to those recommended in the 'WHO laboratory Manual for the examination and processing of human semen' Fifth Edition 2010 World Health Organisation.

Requested Tests : SMI

Refer to andrologist/IVF

TOTAL MOTILE COUNT CALCULATION

Volume	2.4
Count	34 million
ProgessiveMotility	47%
Morphology	6%

2.4 x 34 = 81.6
81.6 x .47 = 38.352
38.352 x .06 = 2.30 million

AMAZING SPERM

Volume	5
Count	190 million
Progressive Motility	80%
[illegible]phology	30%

5 x 190 = 950
950x .80 = 760
760 x .30 = 228 million

VOLUME x COUNT
x Progressive Motility .
x Morphology .

MALE BLOODS TESTS

FSH
LH
Estradiol
SHGB
Testosterone (bound & unbound
Prolactin

MALE BLOOD TESTS

Hormone levels should be measured if:
- Sperm concentration is less than 10 x 106 sperm/mL
- There is impaired sexual function (erectile dysfunction, low libido)
- There are exam findings of a specific hormone disorder (i.e. thyroid).

Follicle Stimulating Hormone (FSH): induces sperm production in the Sertoli Cells

Luteinising Hormone (LH): triggers testosterone production in the Leydig Cells
**** should be the same as FSH reading, if different there is an hormone imblance****

Sex Hormone Binding Globulin (SHBG): transports and activates testosterone and is synthesized in the liver. Oestrogen & Progesterone that are bound to SHBG are not active, therefore the **higher the SHBG the less the hormone is active in the body**

Bound & Unbound Testosterone: related to SHBG.
Bound testosterone indicates testicular activity relating to sperm production.
Unbound testosterone relates to non-spermatogenic activity of the testes.

FERTILITY BLOODS

Bloods give us an insight into what we can't see or confirms our diagnosis

HORMONAL BLOODS

- FSH
- LH
- Oestrogen
- Testosterone
- DHEA
- Progesterone (Day 21)

OTHER BLOODS

- VIT D
- VIT B
- ZINC
- THYROID PANEL
- FBE
- IRON STORES

TCM PATTERNS

- Kidney Yin Xu
- Kidney Yang Xu
- Kid Jing Xu
- Liver Qi Stagnation

- Heart and Liver Blood
- Damp-Heat
- Phlegm
- Blood Stasis
- Cold in Liver Channel

TCM PATTERNS FOR SEMEN ANALYSIS

MOTILITY
YANG
QI
DAMP

COUNT
YIN
JING
BLOOD

MORPHOLOGY
YIN
YANG
JING

VOLUME
JING
YIN
BLOOD
HEAT

SPERM TEST BEFORE TX

Last Ejaculation	2	days	2 - 7
Volume	4.2	ml	> 1.5
Concentration	41.9	10^6/ml	> 15.0
Number of sperm per Ejaculate	176.0	10^6	> 39.0
Progressive Motility	73	%	> 32
Total motility	77	%	> 40
Total motile count	135.5	10^6	
Normal Forms	5	%	≥ 4
Abnormal forms	95	%	< 97
pH	8.2		> 7.2
Alive	85	%	> 58
WBC	0	10^5/ml	< 10
Classification	Semen parameter(s) within normal range		
COMMENTS	Mucin was present in the sample.		
Sperm antibodies - IBT (Direct)	NOT DETECTED		
Laboratory Site	This sample was analysed at Healthscope Reproductive Laboratory, Clayton (NATA		

- **PRIMARY DIAGNOSIS** = Wife in "early menopause" IVF the only option
- 8 moths of treatment
- Dx – Yin xu
- HERBS =5 Seed 22.5
  Zuo Gui Wan 11.5
  Bu Zhong YI Qi Tang 11.5
  Lu Rong 6g

  NAC/Supermushroom mix
- Retested May 18 (5months)
- TX = Tan style

EXAMPLE OF ONE TX
Tan Global balance Fertility.

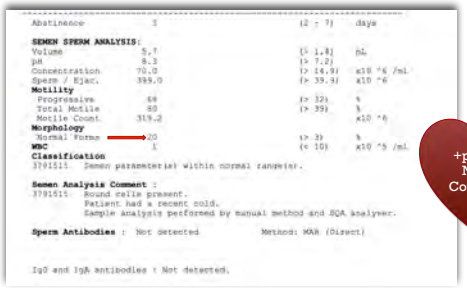
Bi lateral:
Du 20, Bi Tong, Bl 2, Yin Tang
An Mian, Ear Shen Men.

Ren 17, Ren 12, Ren 6, Ren 4, Ren 3, Ki 12,

LHS:
Kidney:10, 7, 6, 3, 1 (little toe)
Liver: 1, 2, 3, 5, 8,
Colon: 11, 4, Ling Gu, Da Bai

RHS:
Stomach: 36, 37, 39, 40, 41, 43
Pericardium: 3, 6, 7, 7.2

SPERM TEST BEFORE TX



Abstinence	5	(2 - 7)	days
SEMEN SPERM ANALYSIS:			
Volume	5.7	(> 1.8)	mL
pH	8.3	(> 7.2)	
Concentration	70.0	(> 16.9)	x10 ^6 /mL
Sperm / Ejac.	399.0	(> 39.9)	x10 ^6
Motility			
Progressive	68	(> 32)	%
Total Motile	80	(> 39)	%
Motile Count	319.2		x10 ^6
Morphology			
Normal Forms	20	(> 3)	%
WBC	1	(< 10)	x10 ^5 /mL

Classification
3791515 Semen parameter(s) within normal range(s).

Semen Analysis Comment :
3791515 Round cells present.
Patient had a recent cold.
Sample analysis performed by manual method and SQA Analyser.

Sperm Antibodies : Not detected Method: MAR (Direct)

IgG and IgA antibodies : Not detected.

+preg test
Natural
Conception

- **PRIMARY DIAGNOSIS – Wife FSH of 24**
- Dx – Yin xu
- Kiiko tx style
- zinc
- selenium
- antioxidant mix
- HERBS: Wild Oats + Xaio Yao San

Example of one Kiiko tx

Yintang, ESM, oketsu, st qi line

8 Tx 5 month retest

MORPHOLOGY
7% to 28%

SPERM TEST BEFORE TX

SPERM TEST AFTER TX

CLINICAL NOTES: h/o subfertility

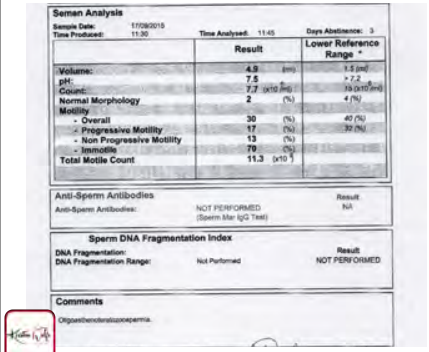
MICROBIOLOGY

SEMEN ANALYSIS - FERTILITY STUDIES

Time of collection	10:25 hr	
Time of examination	11:05 hr	
* Volume	1.3 mL	(> 2.4)
Count	56.9 x 10 ^6 /mL	(> 14.9)
Motility	54 % Progressive motility	
	14 % Non-progressive motility	
	32 % Non-motile	
Morphology	28 % normal forms	(> 3)

Viscosity increased.
Mucin present in the sample.
Debris present.
Sample liquified before testing.
Sample analysis performed by manual method and SQA analyzer.

Motility is within normal limits (total motility is > 39%).



Semen Analysis

Sample Date: 17/09/2015
Time Produced: 11:30
Time Analysed: 11:45
Days Abstinence: 3

	Result		Lower Reference Range *
Volume:	4.9	(mL)	1.5 (mL)
pH:	7.5		> 7.2
Count:	7.7	(x10 ^{6}/mL)	15 (x10^6/mL)
Normal Morphology	2	(%)	4 (%)
Motility			
- Overall	30	(%)	40 (%)
- Progressive Motility	17	(%)	32 (%)
- Non Progressive Motility	13	(%)	
- Immotile	70	(%)	
Total Motile Count	11.3	(x10 ^{6})	

Anti-Sperm Antibodies

		Result
Anti-Sperm Antibodies:	NOT PERFORMED (Sperm Mar IgG Test)	NA

Sperm DNA Fragmentation Index

		Result
DNA Fragmentation:		
DNA Fragmentation Range:	Not Performed	NOT PERFORMED

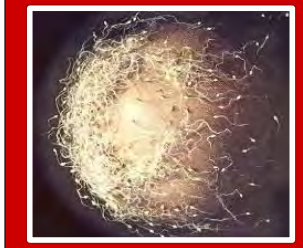
Comments

Oligoasthenoteratozoospermia.

Lets see what the TMNS is?

OPTIMAL SEMEN ANALYSIS FOR CONCEPTION

- Volume: 2-6mL
- pH: at least 7
- Viscosity: normal
- Liquefaction: should occur within 20-60 minutes of ejaculation
- Concentration: >50-120 per mL
- Aggregation/Agglutination: 'Grade 1' (<10 spermatozoa per agglutinate)
- Motility:
  - Total: >50-70%
  - Progressive: >45-65%
  - Rapid progressive: >25%
  - Motility index: 150+ out of score of 300
- Vitality: generally only assessed when motility scores are poor; at least 60% live
- Anti-sperm antibodies: preferably absent; <20% if present
- Morphology:
  - Normal forms: >30-50%
- DNA Fragmentation:
  - <15% excellent
  - 15-24% good
  - 25-29% fair
  - >30% poor



Despite the millions of sperm produced and ejaculated, only a few dozen make it to the egg and one sperm can fertilise an egg to create conception.

TIMING

One of the most important things to recommend to increase chances of conception is to advise having intercourse on the most fertile days – the four days immediately leading up to and including ovulation plus one just in case

If ovulation is day 17, sex day 14-18

CLEAN THE PIPES REGULARLY

FUN FACTS

* Whilst the egg is the biggest cell in the human body – the sperm is the smallest
* Sperm is ejaculated at 45 kilometres per hour
* Can swim 20cm per hour
* Sperm only makes up 10% of ejaculate and fewer than 1% make it to the egg!
* DNA information is equivalent to 35MB per sperm or 1500TB per ejaculate!
* Sperm swim in both straight lines and corkscrew manner

LOOK AT THE MALE FIRST

* Have you sighted the sperm test?
* How recent is it?
* DNA Fragmentation
* Testosterone
* Sperm antibodies
* H2O
* ICSI

REFER TO ANDROLOGIST

* Sperm is below reference range or very close to them
* There is impaired sexual function (erectile dysfunction, low libido) or does not wake with erection
* Physical Exam
* Ultrasound
* Sperm biopsy

SPERM TEST

* Does sperm test indicate “Fertile Sperm” and is it within 6 months?
* Was it analysed within 30-1hr?
* Days of abstinence? 3-4 days
* Semen volume: >2.6 ml
* Sperm concentration: >64 million per ml
* Total sperm number: >100 million per ejaculate
* Total motility: >62%
* Progressive motility: >50%
* Normal morphology: 14-20%

MALE FERTILITY DETECTIVE SYSTEM

* Is he “cleaning the pipes” regularly?
* Quality of erection / duration / hardness - Morning erection – this is an indication of whether or not mental issues are causing sexual problems with partner
* Quality of semen – colour, thickness amount
* Smoking/drinking?
* Over exercising?
* Shift work?
* Bike riding, electric blankets, laptops, phones?

MALE FERTILITY DETECTIVE SYSTEM

* Is he drinking enough H2O?
* Prostate issues (even younger patients)
* Medications
* Pain/itching in genital region / lumps in testicles
* Genetic history
* Taking the wrong supplements? (bodybuilding / weight lifting)
* Shift work?
* Hours of sleep/wake

OUR LIMITS AS PRACTITONERS

* Azoospermia - No Sperm
* Testicular Severe trauma / infection history
* Past chemotherapy - kills the germ cellls

TCM PATTERNS

- Kidney Yin Xu
- Kidney Yang Xu
- Kid Jing Xu
- Liver Qi Stagnation

- Heart and Liver Blood
- Damp-Heat
- Phlegm
- Blood Stasis
- Cold in Liver Channel

TRACKING IMPROVEMENT

You must trust your tx! As no BBT to see concrete results

Men are not forthcoming with S&S, will generally say everything is good! Find one S&S that you can track

Eg, Energy levels, mood, sleep, BM, morning erection, sleepiness after meals, etc.

Significant improvement S&S almost ALWAYS show an improved follow-up semen analysis

Explain in layman terms how there S&S affect fertility

TREATMENT

MINIMUM OF 3.5 MONTH TX

- Treat the constitutional pattern – e.g. Kid Yang Xu
- Address Stress
- Ensure adequate sleep
- Supplementation
- Eliminate alcohol & drugs
- Hydration is key - plenty of H2O
- Digestion – so they can assimilate supplements and herbs, plus reduces inflammation in the body
- MOBILE PHONES!

Retest sperm after he has come on board for 4-6 months

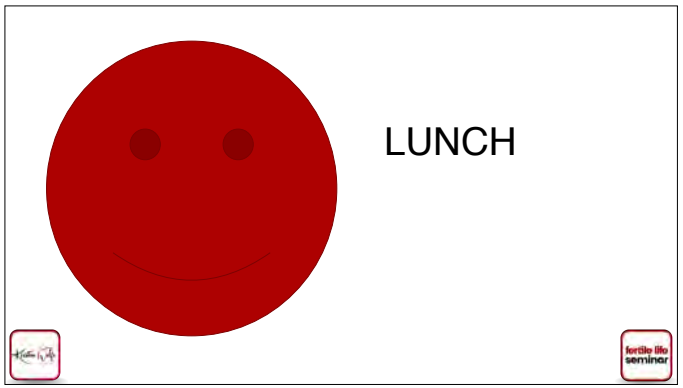
ACUPUNCTURE POINTS

- Ren 3 – angled downward and qi sensation, Ren1
- St 36, 29
- Sp6
- Liv 2,5,8
- Kid – choose depending on yin or yang Xu
- Chong and Ren Mai
- Bl23, Bl30, 31, 32 Du4
- Cup & Moxa Ren 8 for yang xu

- Treat other S&S

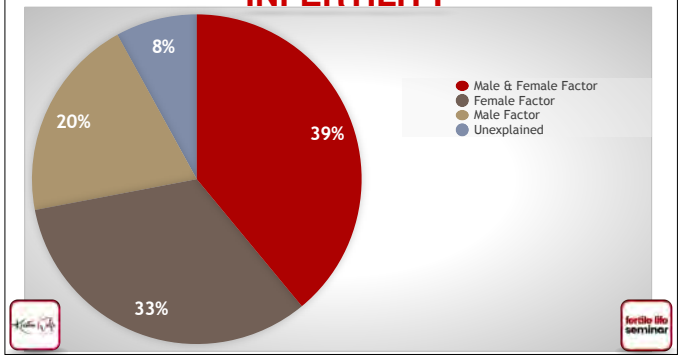
MALE SUPPLEMENT

- NATUROBEST - Male Fertility Formula
- Metagenics Selenium
- CoQ10
- L-Carnitine & NAC +/- Supermushrooms
- Magnesium
- Deer Antler


LUNCH


FEMALE REPRODUCTIVE SYSTEM
IT'S NOT THAT COMPLICATED

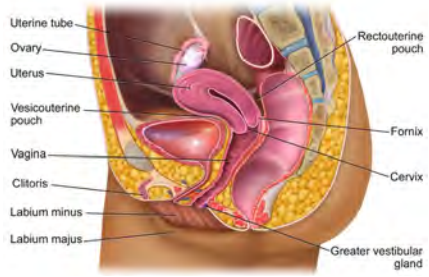
INFERTILITY



NORMAL HEALTHY MENSTRUATION

- Cycle Length 26-32 days
- 3-5 day medium bleed 30-80mls – bright red rich blood
  - **PAD:** 1/3 = 1ml |1/2 = 10ml |Full 20ml
  - **TAMPON**: 1/3 – 1ml |1/2 - 5ml |Full =10ml
  - **CUP:** You can measure most 15-30ml
  - **PERIOD UNDIES:** 15-20mls
- No spotting
- No pain
- No Bloating
- No sore breasts
- No PMS
- 30-80mls – bright red rich blood
- No clots
- Clear sighs of ovulation (12-20)
- Minimum 11 day luteal phase

FEMALE REPRODUCTIVE SYSTEM



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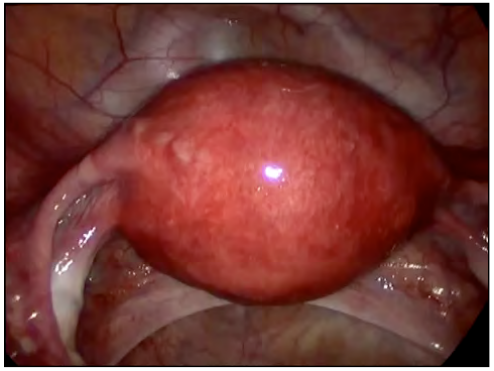

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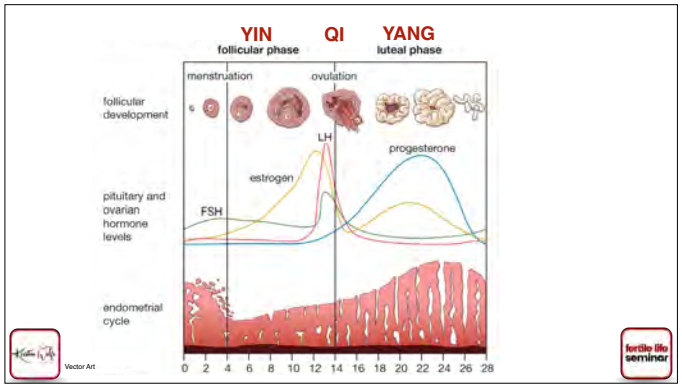
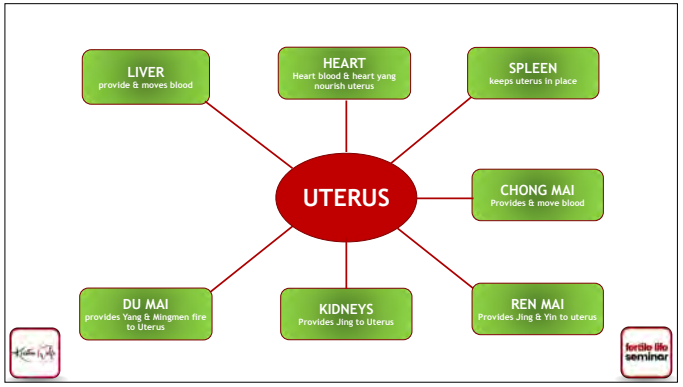
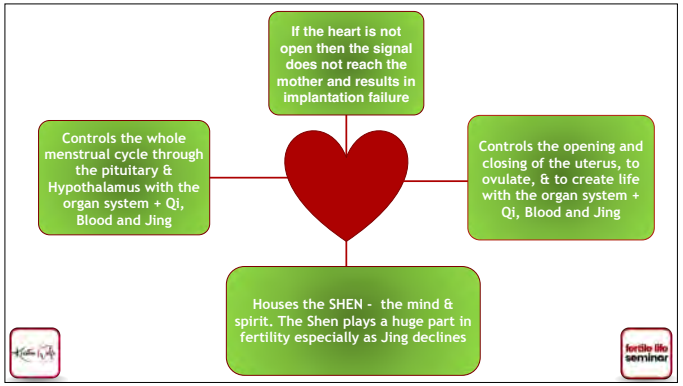
OVULATION

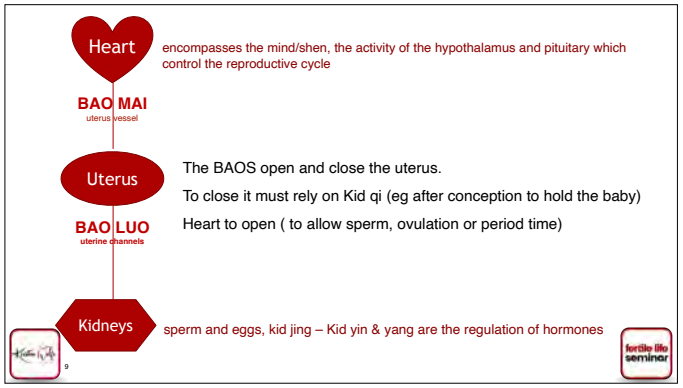

YIN
follicular phase
QI
YANG
luteal phase
menstruation
ovulation
follicular development
LH
progesterone
estrogen
pituitary and ovarian hormone levels
FSH
endometrial cycle
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Vector Art

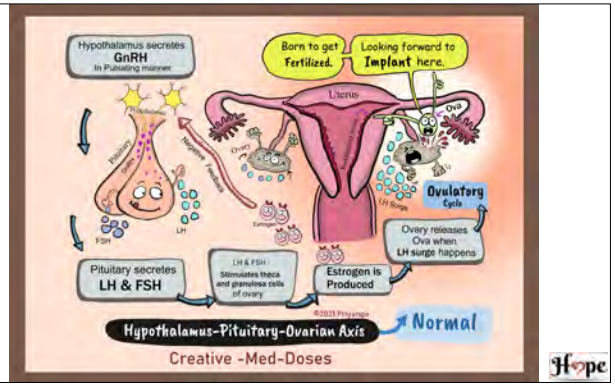
- **FSH** - Folllicle Stimulating hormone
  This hormones make your eggs grow
- **LH** - Lutensing hormone
  This hormones triggers your egg to ovulate
- **Oestrogen**
  This hormone is produced by the developing egg & grows your uterine lining
- **Progesterone**
  This hormone is produced after ovulation by the corpus luteum and what maintains a pregnancy to 10 weeks

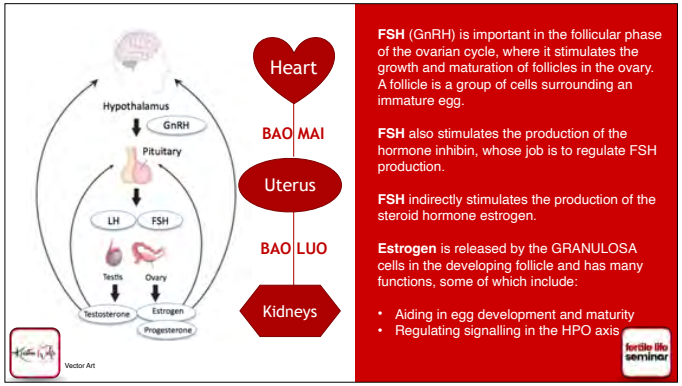
FEMALE HORMONES




If the heart is not open then the signal does not reach the mother and results in implantation failure
Controls the whole menstrual cycle through the pituitary & Hypothalamus with the organ system + Qi, Blood and Jing
Controls the opening and closing of the uterus, to ovulate, & to create life with the organ system + Qi, Blood and Jing
Houses the SHEN - the mind & spirit. The Shen plays a huge part in fertility especially as Jing declines


Heart
encompasses the mind/shen, the activity of the hypothalamus and pituitary which control the reproductive cycle
BAO MAI
uterus vessel
Uterus
The BAOS open and close the uterus.
To close it must rely on Kid qi (eg after conception to hold the baby)
Heart to open (to allow sperm, ovulation or period time)
BAO LUO
uterine channels
Kidneys
sperm and eggs, kid jing – Kid yin & yang are the regulation of hormones
9





FSH (GnRH) is important in the follicular phase of the ovarian cycle, where it stimulates the growth and maturation of follicles in the ovary. A follicle is a group of cells surrounding an immature egg.

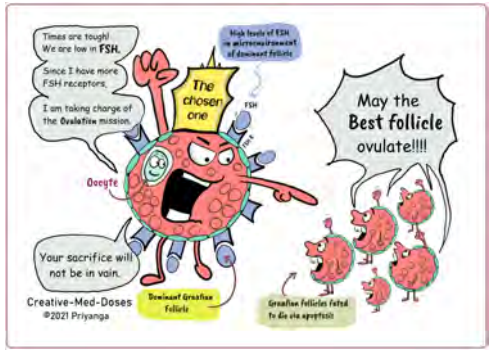
FSH also stimulates the production of the hormone inhibin, whose job is to regulate FSH production.

FSH indirectly stimulates the production of the steroid hormone estrogen.

Estrogen is released by the GRANULOSA cells in the developing follicle and has many functions, some of which include:

- Aiding in egg development and maturity
- Regulating signalling in the HPO axis

fertile life seminar



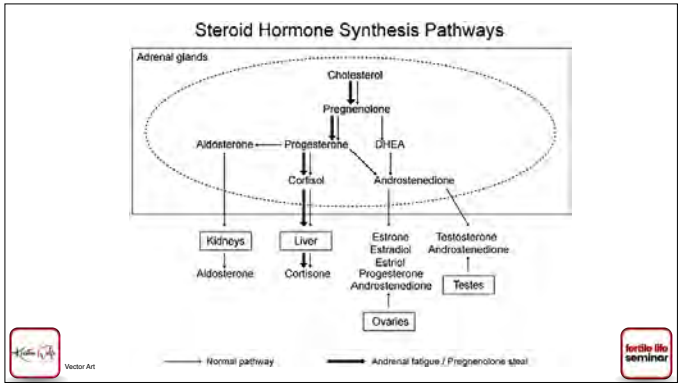
HPO AXIS - HEART & KIDNEY AXIS

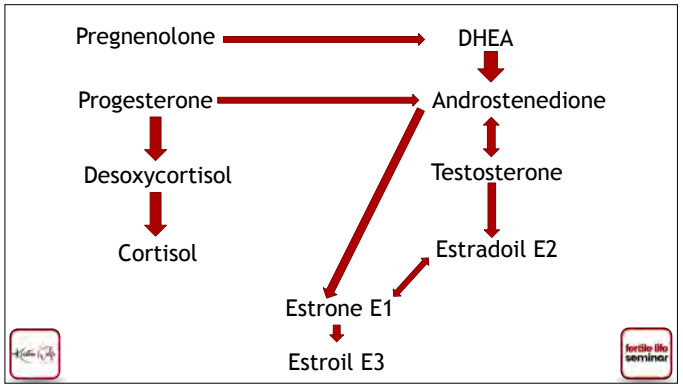
* Lifestyle choices strongly effect the H-P-O Axis, especially
* – Stress!
* – Low Blood sugar
* – Overwork
* – Overtired
* – Cold temperatures
* – Emotional stress
* – Relationship tension
* – Emotional reactivity

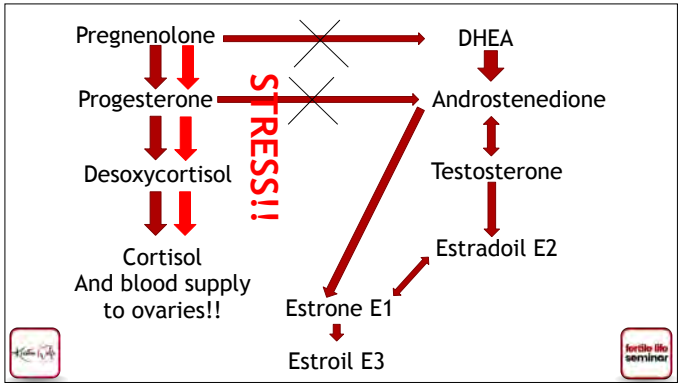
* Body receives as ***stress*** = **Fight or Flight Response**

* Stress directly effects the hypothalamus and its secretion of GnRH; impacts the release of pituitary hormones, shunts blood supply away from the ovaries, and increases cortisol so the tissues no longer respond appropriately to (even balanced) hormones

fertile life seminar


Steroid Hormone Synthesis Pathways
Adrenal glands
Cholesterol
Pregnenolone
Aldosterone
Progesterone
DHEA
Cortisol
Androstenedione
Kidneys
Liver
Estrone
Estradiol
Testosterone
Androstenedione
Aldosterone
Cortisone
Estriol
Progesterone
Androstenedione
Testes
Ovaries
Vector Art
Normal pathway
Adrenal fatigue / Pregnenolone steal
fertile life seminar

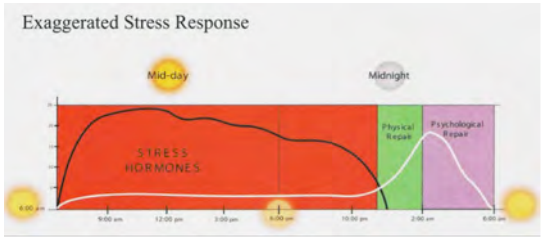

Pregnenolone
DHEA
Progesterone
Androstenedione
Desoxycortisol
Testosterone
Cortisol
Estradoil E2
Estrone E1
Estroil E3
fertile life seminar



CIRCADIAN RHYTHM

Melatonin release is inhibited by light and this growth hormone triggers the release of other growth hormones, such as testosterone, estrogen, and human growth hormone - which are essential for physical repair of the body

CIRCADIAN RHYTHM



Your circadian rhythm aka *sleep/wake cycle* also influences your primal physiological and biochemical processes.
These include food intake, hormone release, immunity, mood, metabolism, cognition and your cardiovascular system

BLUE LIGHT

Short wavelength blue light plays an important role in mood, energy levels and sleep quality

Sunlight contains high concentrations of blue light which reduces melatonin

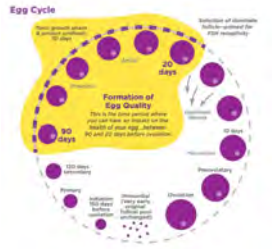
Sun's rays lose their blue light in the afternoon which allows for melatonin

Laptops, cell phones, tablets and TVs emit blue light which impairs melatonin

CAN YOUR REALLY RUN OUT OF EGGS?

Every baby girl is born with somewhere between one and two million eggs in her ovaries, more than you could ever need! With this in mind, the average woman will only release about 400 of these during her reproductive years from the onset of her first menstrual cycle
300,000-400,00 REMAIN

EGG CYCLE

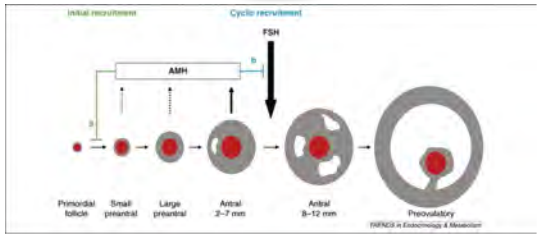


Within in the primordial pool eggs will lay dormant in the ovaries until they undergo the process of maturation.

This phase known as folliculogenesis, takes 3 – 4 months.

The final stage occurs when the eggs are recruited for ovulation. Between 5 – 20 eggs will be recruited, one becomes dominant and the rest reabsorbed

AMH



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CONTRACEPTIVES = COLD STAG

THE PILL - Most birth control pills are combination pills, they contain estrogen and progestin. Some contain only progestin. These work by preventing the ovary from releasing eggs. They also thicken cervical mucous making it hard for sperm to reach the uterus. This method also thins the uterine lining which may prevent implantation.

IMPLANON: A thin flexible, plastic implant that is the size of a cardboard matchstick. It contains Progestin to inhibit ovulation and thins the lining of the uterus which may prevent implantation.

DEPO PROVERA: This injectable shot contains progestin. Progestin keeps the ovaries from releasing the eggs, thickening cervical mucous to prevent sperm from reaching the uterus and thinning the uterine lining which may prevent implantation. Note: continued use of Depo-Provera may stop the menstrual cycle completely and it may take longer than average (9 months-1 year for the menstrual cycle to regulate after stopping it). Once you have gotten a shot of Depo-Provera, side effects will not dissipate for 12-14 weeks.

CONTRACEPTIVES = COLD STAG

IUD: prevents the sperm from moving correctly, preventing the sperm from meeting and connecting with the egg. It may also affect the uterine lining which may cause implantation problems, but there is no proof of this. - BLOOD STAGNATION.

MERINA: This IUD contains progestin which prevents ovulation as well as thickens cervical mucous. It also prevents the sperm from moving correctly toward the egg, preventing conception. - BLOOD STAGNATION.

CONTRACEPTION

* Pill = PCO, amenorrhea
* How long where they on it?
* Did they skip periods?
* How long for menstrual cycle to come back & then regulate?

* IUD = Did they bleed on it? Clots? How long bleeding?
* Did they remove it themselves

PCOS DEFINITION

Irregular or absent menstrual cycles
Menstrual cycles are longer than 35 days and/or
Progesterone level in the late luteal phase is low

Blood test showing high levels of androgens
Total or free testosterone level is elevated

Ultrasound showing polycystic ovaries
12 or more follicles 2-9 mm in diameter and/or
Increased ovarian volume >10 ml

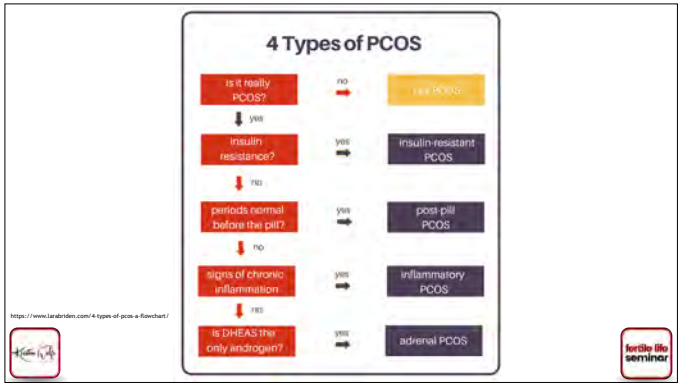
PCOS TYPES

* Insulin Resistant = high insulin - accounts for 70%

* Post Pill PCOS (temporary surge of androgens)

* Inflammatory PCOS - inflammatory PCOS if you meet the criteria for PCOS, *plus* you do not have insulin resistance, *plus* you're not in a temporary post-pill phase, *plus* you have signs and symptoms of inflammation, as follows:
  - *unexplained fatigue*
  - *bowel problems like IBS or SIBO*
  - *autoimmune disease like Hashimoto's thyroid disease*
  - *headaches*
  - *joint pain*
  - *a chronic skin condition like psoriasis, eczema, or hives.*

* Adrenal PCOS - Elevated DHEA (normal testosterone) 10%



PCOS SYMPTOMS

* Irregular or no menstruation
* Difficulty getting pregnant
* Elevated LH hormones
* Insulin resistance
* Hirsutism – Excessive body hair in a male-like pattern (upper lips and chin)
* Hair loss

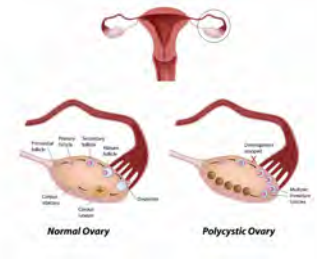
PCOS v's HYPOTHALAMIC AMENORRHEA

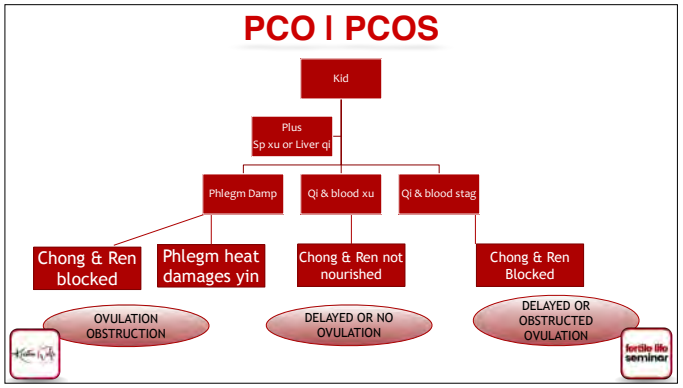
PCOS	Hypothalamic amenorrhea
absent or irregular cycles	absent or irregular cycles
polycystic ovaries	polycystic ovaries
hirsutism and elevated androgens	possible mild hirsutism
normal or high fasting insulin	low fasting insulin
thickened uterine lining	thin uterine lining
bleed from progesterone challenge	no bleed from progesterone challenge
mild risk of bone loss	significant bone loss
few periods when first stopping the pill	no periods when stopping the pill
any age but can outgrow it	more likely under 30 but any age
high LH to FSH ratio	**low LH** to FSH ratio

https://www.larabriden.com/

PCO I PCOS

- CLOMID/LETROZOLE
- METFORMIN
- IVF




PCO I PCOS
Kid
Plus
Sp xu or Liver qi
Phlegm Damp
Qi & blood xu
Qi & blood stag
Chong & Ren blocked
Phlegm heat damages yin
Chong & Ren not nourished
Chong & Ren Blocked
OVULATION OBSTRUCTION
DELAYED OR NO OVULATION
DELAYED OR OBSTRUCTED OVULATION
fertile life seminar

PCO I PCOS TREATMENT

INVESTIGATIONS

Refer if suspected

Blood for free testosterone

Progesterone day 21,28 for ovulation

Ultrasound of ovaries

LIFESTYLE FACTORS

Weight gain
Weight loss
Decrease or increase exercise
Vit D
Vitex
Herbs

ACUPUNCTURE TX

Tx according to diagnosis
Regulate cycle
Stimulate ovaries
Allow a minimum of 4 mths tx
Acu stim

ACU STIM

FERTILITY DETECTIVE

- Ultrasound – how many follicles on each?
- Clomid – what dose?, bloods on correct timing to confirm ovulation
- Letrozole - what dose?, bloods on correct timing to confirm ovulation
- Are they following diet recommendations?
- No sugar/gluten
- Exercise - increase or decrease

ENDOMETROSIS

Endometriosis occurs when tissue that normally grows in the uterus implants and grows in other locations. This extra tissue growth — and the surgical removal of it — can cause scarring, which may obstruct the tube and keep the egg and sperm from uniting. It can also affect the lining of the uterus, disrupting implantation of the fertilized egg. The condition also seems to affect fertility in less-direct ways, such as damage to the sperm or egg. It is an **ESTROGEN DOMINANT CONDITION** - inflammatory

Oestroclear – reduces estrogen in the body

PHYTO MULTI – Metagenics – reduces inflammation

AVOID – key inflammatory foods:
- Gluten
- DAIRY
- SOY – phytoestrogen (check packages)

ENDOMETROSIS

S&S for referral

- Painful periods
- Lower ab pain or bloating
- Pelvic pain
- Low back pain
- Painful intercourse
- Pain with exercise
- Leg pain
- Bowel Problems

WARNING!
Can have no symptoms

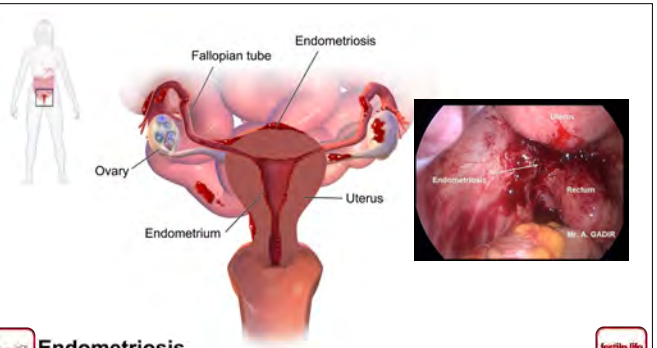
DIAGNOSED VIA SURGERY

Laparoscopy
Removed via laser

IVF

6-8 weeks on pill or sinerol

When was last surgery?
Pain down thighs at a period is an indication of endo



Endometriosis

Vector Art

FIBROIDS

Fibroids or myomas are benign polyps or tumours that are common in the uterus, and some types can impair fertility by blocking the fallopian tubes or by disrupting implantation. However, many women who have fibroids or polyps can become pregnant.

Many women with uterine fibroids report menstrual pain, heavy menstrual bleeding and fertility problems. Fibroids on the back wall of the uterus can contribute to constipation, urinary tract problems and heavy menstrual periods. Larger fibroids can cause pain with intercourse and pelvic pressure.

BLOOD STASIS, LIVER QI STAGNATION – then treat YIN OR YANG

Does it affect implantation? What size? Surgery? Anaemia?

FIBROIDS

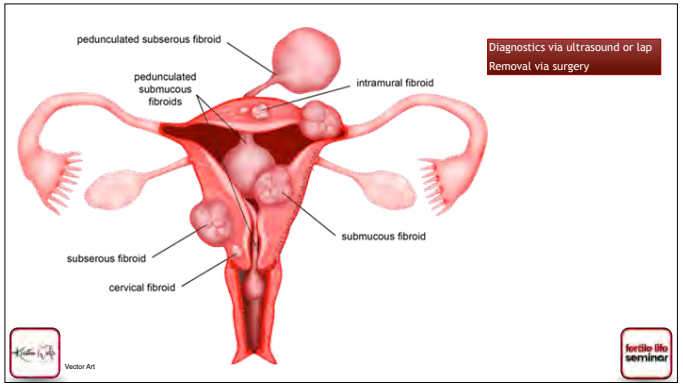
Fibroids can cause a range of complications, including:

• **Anaemia** – excessive menstrual blood loss can cause anaemia

•**Problems urinating** – large fibroids can make the uterus bulge, pressing against the bladder. This can cause a feeling of fullness or discomfort and the need to urinate often

•**Infertility** – fibroids can interfere with implantation of the fertilised egg in a number of ways. For example, the egg may try to implant into a fibroid, or fibroids may change the shape of the uterus and make it difficult for an egg to implant

•**Miscarriage and premature delivery** – fibroids can reduce blood flow to the placenta or compete for space with the developing baby



ADENOMYOSIS

Adenomyosis is referred to as endometriosis interna, and is related both to endometriosis and fibroids. It occurs when endometrial tissue, which normally lines the uterus, exists within and grows into the muscular wall of the uterus.

Causes excessive bleeding and painful periods - yet can have NO S&S!

TCM - BLOOD STASIS, LIVER QI STAGNATION - then treat YIN OR YANG

TYPES OF ADENOMYOSIS

TREATMENT OF ADENOMYOSIS

Western Medicine = Zoladex

OVULATORY DISORDERS

Anovulation, or no ovulation, is a disorder in which eggs do not develop properly, or are not released from the follicles of the ovaries. Women who have this disorder may not menstruate for several months. Others may menstruate even though they are not ovulating. Although anovulation may result from hormonal imbalances, eating disorders, and other medical disorders, the cause is often unknown. Female athletes who exercise excessively may also stop ovulating.

Hypothalamic amenorrhea is defined as the absence or cessation of menses caused by a deficiency in the GnRH. Typically this results in very low levels of FSH, LH and estrogen. Excess physical or emotional stress, a very high or very low body weight, or a recent substantial weight gain or loss can disrupt this pattern and affect ovulation. The main sign of this problem is irregular or absent periods. 2x weeks Si Ni San

Oligo-ovulation
Oligo-ovulation is a disorder in which ovulation doesn't occur on a regular basis and your menstrual cycle may be longer than the normal cycle of 21 to 35 days.

Has patient got PCOS? Anaemia, HPO axis?

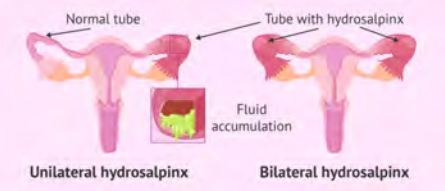
OVULATORY DISORDERS

Premature ovarian insufficiency: This disorder is usually caused by an autoimmune response where your body mistakenly attacks ovarian tissues or by premature loss of eggs from your ovary due to genetic problems or environmental insults such as chemotherapy. It results in the loss of the ability to produce eggs by the ovary, as well as a decreased estrogen production under the age of 40.

Too much prolactin: Less commonly, the pituitary gland can cause excess production of prolactin (hyperprolactinemia), which reduces estrogen production and may cause infertility. Most commonly this is due to a problem in the pituitary gland

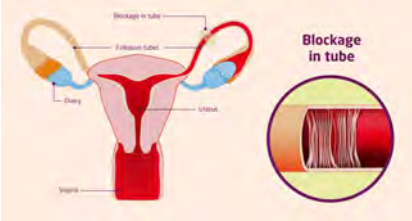
TUBAL DISORDERS

Hydrosalpinx - fallopian tube that has become filled with fluid, caused from pelvic inflammatory disease, an infection of the uterus and fallopian tubes due to chlamydia, gonorrhoea, other sexually transmitted infections or excessive tissue build-up due to endometriosis



TUBAL DISORDERS

Scarring from previous surgery in the abdomen or pelvis, including surgery for ectopic pregnancy, in which a fertilized egg becomes implanted and starts to develop in a fallopian tube instead of the uterus



TYPES OF OVARIAN CYSTS

*__FUNCTIONAL CYSTS__ - are follicles (eggs) that didn't ovulate when they were supposed to, but instead keep growing and producing estrogen

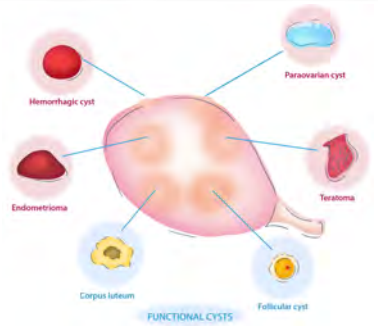
*__HEMORRAGIC CYSTS__: any cysts that bleed or appear to have blood vessels in them are considered a hemorrhagic cysts.

*__ENDOMETRIOMAS__: these cysts are caused by endometriosis in the ovaries or other tissues. They produce a thick dark liquid inside their walls, which is why they are also sometimes called 'chocolate cysts.'

*__DERMOID CYSYTS:__ these are benign cysts, also called teratomas, which contain different types of tissues including hair, skin and nails. They are benign, but removal is typically recommended because they can grow quite large if left untreated.

*__PARAOVARIAN CYSTS__: these are fluid filled sacs that grow near the ovaries or fallopian tubes. They usually resolve on their own.

TYPES OF OVARIAN CYSTS



COMPLICATIONS

*__OVARIAN TORSION__: The Cysts that are large can cause the ovary to move out of its original position, increasing the chances of painful twisting of the ovary (ovarian torsion). Symptoms include sudden onset of severe pelvic pain, nausea and vomiting. Ovarian torsion can decrease or stop blood flow to the ovaries, and if not treated, it can cause damage or death of the ovarian tissue.

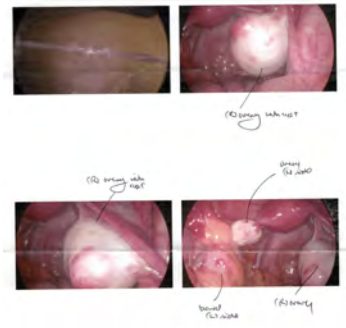
*__RUPTURED CYSTS:__When a cyst ruptures, it causes intense pain and internal bleeding. This increases the risk of an infection and can be life-threatening if left untreated.

OVARIAN CYSTS

Dear Erin,

You did have a dermoid cyst on the right side. I have removed the cyst but saved the right ovary. The left ovary is normal. I found a small spot of endometriosis which was cauterised.

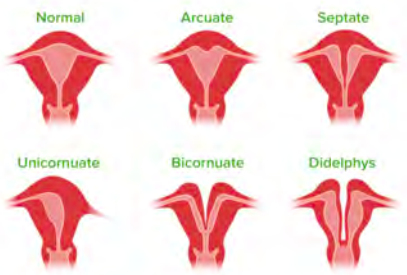
OVARIAN CYSTS



UTERINE OR CERVICAL

Several uterine or cervical causes can impact fertility by interfering with implantation or increasing the likelihood of a miscarriage.

- Uterine abnormalities present from birth, such as an abnormally shaped uterus, can cause problems becoming or remaining pregnant.
- Cervical stenosis, a cervical narrowing, can be caused by an inherited malformation or damage to the cervix.
- Sometimes the cervix can't produce the best type of mucus to allow the sperm to travel through the cervix into the uterus.



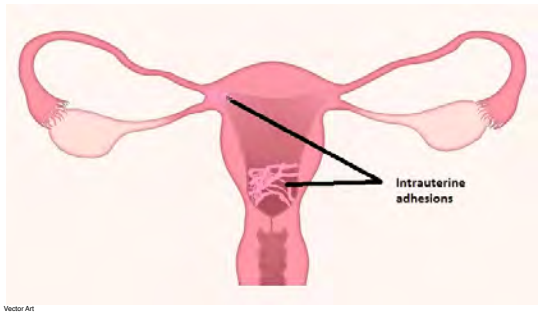
Vector Art

ASHERMANS

- Asherman's syndrome is a condition that can cause infertility and miscarriages.
- It occurs when the lining of the uterus is scarred, usually as a result of infection or surgery. The scarring can prevent the fertilized egg from implantation, or it can cause an early miscarriage.
- Asherman's syndrome is relatively rare, affecting only about 1 in 100,000 women. However, it is more common in women who have had multiple pregnancies or who have had previous uterine surgery.

  The good news is that ashermans syndrome is often treatable with surgery or medication. In some cases, the scarring can be reversed, allowing the woman to become pregnant again.

ASHERMANS



Vector Art

fertile life seminar

DOES SHE HAVE ENOUGH BLOOD?

* To nourish ovaries & uterine blood to create life?
* What is her menstruation like? is it heavy, light, clots etc.
* Any history of anaemia, amenorrhea, overexercise, anorexia?
* History of blood loss?
* Has she conceived before and now has a new partner?

the detective system

OTHER QUESTIONS TO CONSIDER

* Does she take drugs, alcohol, medication or smoke
* What supplements are being taken?
* Has woman easily conceived with different partner? – indicates sperm?
* Are they using lubricant?
* What does your gut/heart say?

HAVE ALL THE BLOODS BEEN CHECKED??

* Have you sighted ALL of them?
* Have hormones been checked on the correct day of cycle?
* Order the bloods that have not been done
* Know your reference ranges
* Are they on the right medication in accordance to anything that comes up on the blood tests?

ULTRASOUND

* Fibroids - where, how extensive, is surgery recommended?
* Endo - where, how extensive, is surgery recommeded?
* Heart shape uterus - what extent?
* PCO - how many? Have bloods been done?
* Are the tubes clear, where tubes clear? Blocked how?
* Have you sighted the scan results?

LAPROSCOPY I HYSTOCOPY

* Fibroids - where, how extensive, was it removed?
* Endo - where, how extensive, was it removed?
* PCO - how many?
* Are the tubes clear, where tubes clear? Blocked how? Hydrosalpinx?
* Have you sighted the written report?

FURTHER INVESTIGATIONS - WHEN?

* Blood clotting bloods
* Auto immune bloods
* D&C can = Ashermans

CUPPING THE NAVEL

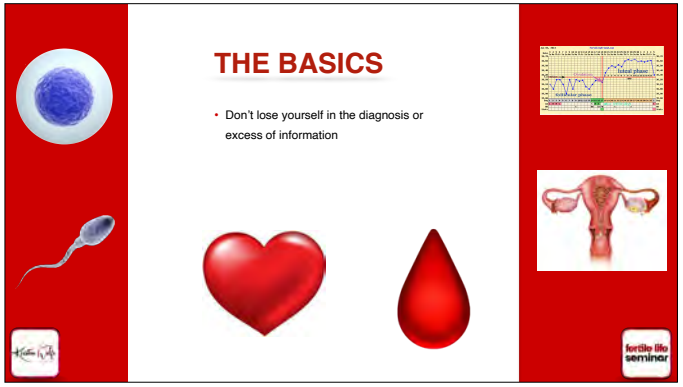
MOXA

DAY ONE

What INSIGHTS/LEARNINGS/LIGHT BULBS from yesterday have you had and you will now use in clinic?

DAY 2

- ❖BBT Charting
- ❖Treating Natural Cycles with TCM
- ❖Interpreting and advising of fertility tests
- ❖Recurrent Miscarriage



BBT CHARTING

A BRILLIANT TOOL

BBT RULES

* Take temperature immediately after waking up each morning, before getting out of bed, speak or drink
* Take temperature at the same time each morning
* Use a consistent collection method – orally/vaginally if orally the same side of your mouth under the tongue in the fleshy part where your tongue sits
* Start a new BBT chart on the first day of the cycle (first day of full flow menstrual bleeding)

BBT CHARTING

* BBT charting is the basis for diagnosis in the Fertile Life Method. TCM Diagnosis is determined through fluctuations and irregularities in the curve as well as knowing what the hormones are doing in follicular and luteal phase

* Confirm ovulation, distinguish fertile times and evaluate Px's overall reproductive health. Easily identify any hormonal changes

BBT CHARTING

* Can support your TCM diagnosis or change it.

* Every patient must BBT chart otherwise you are blind

* BBT is not stressful when presented the right way

BBT CHARTING

* Follicular ranges can be from 35.9-36.4 (ideally 36.1-36.3)
* Luteal Phase 36.4-36.9 (ideally 36.6-36.9).
* In 99% of cases luteal phase is 11-12 days long enough.
* In Clare's & Kirsten's experience, BBT temperatures less than 36.0 don't necessarily preclude pregnancy, but they are correlated with a much greater chance of severe nausea and vomiting during pregnancy.

fertile life seminar

BBT CHARTING

* Is the thermometer working?
* Are they taking it BEFORE they get up?
* Have they had a restless night or fight with partner?
* Alcohol
* What thermometer are they using?
* Shift work
* Electric blankets
* Rule of thumb

the detective system

OUR PREFERRED BBT APP

BBT DIGITAL THERMOMETER

OUR PREFERRED METHOD

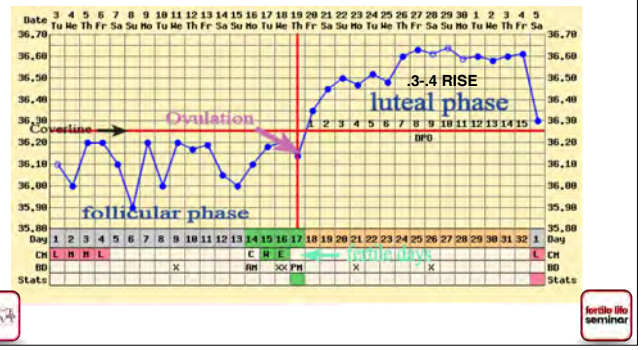
FEMTEK - OUR PREFERRED METHOD

https://femtek.co/

TEMPDROP

https://www.tempdrop.com/

OURA RING + NATURAL CYCLES APP



BBT & COMMON MISTAKES

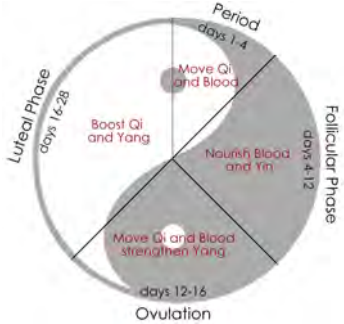
* Dips in temperature show Yang Xu
* Dips in temperature do not indicate ovulation
* Dip in ovulation temps equals that the Yang is weak and can not support release of egg.
* Exhaustion, overexercise, long hours working, stress or an argument can result in temp dips

the detective system

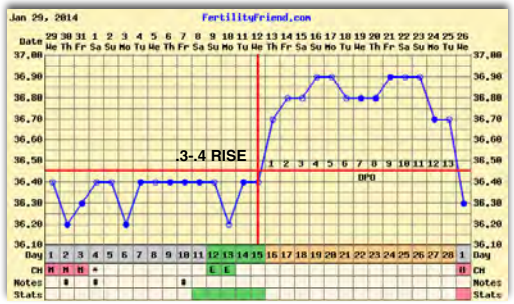
BBT PATTERNS

* **Anovulatory** = blood xu/stag, yin xu, yang xu, high FSH, Prolactin, Thyroid etc.
* **Gradual rise to higher temperatures** = yin or blood xu
* **Follicular phase is long** = Qi and Xue xu – estrogen excess, prog def
* **Follicular Temperature is high** = Yin Vacuity Heat, Internal Heat
* **Follicular phase short** = Kid Yin, Jing, Heat or Blood xu heat
* **Low temps in luteal phase** = yang xu - Progesterone
* **Luteal phase dips below cover line** = yang xu, blood xu - Progesterone
* **Short luteal** – yang qi xu
* **Spotting before 10 day past ovulation** – qi xu, stagnation

fertile life seminar

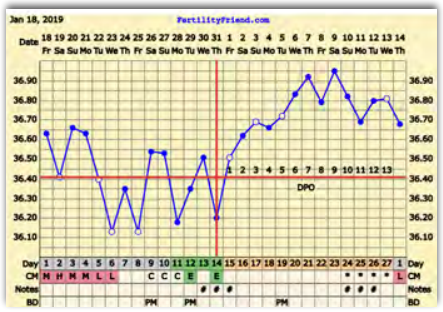


CONCEPTION CHART



CONCEPTION CHART

CONCEPTION CHART?



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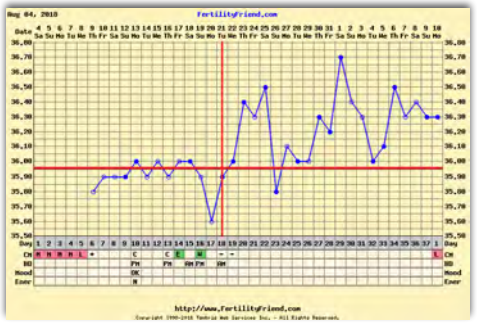
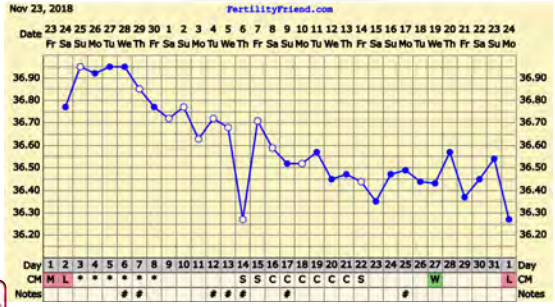
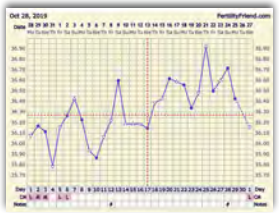


MISCARRIAGE



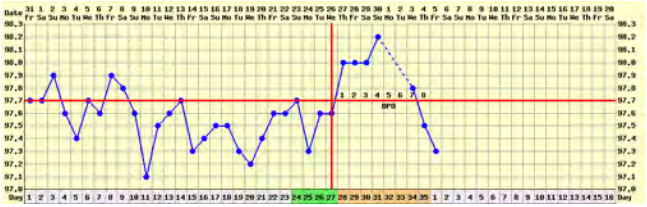
BBT EXAMPLE ALCOHOL SPIKE

CHANGE CAN HAPPEN QUICKLY



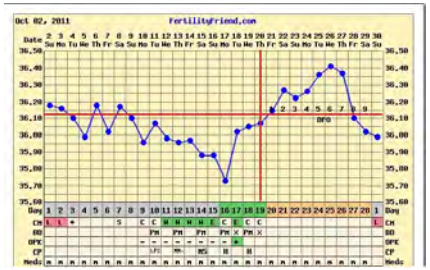
IRON INFUSION

SHORT LUTEAL PHASE



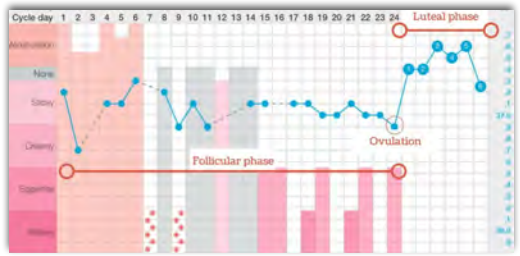
YANG, QI or BLOOD XU

SHORT LUTEAL PHASE



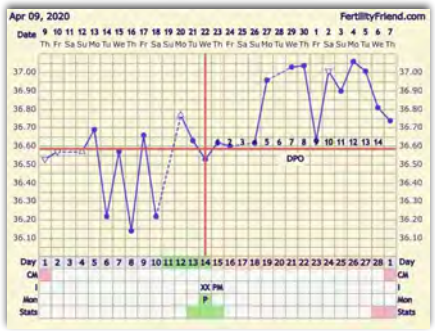
YANG, QI or BLOOD XU

SHORT LUTEAL PHASE

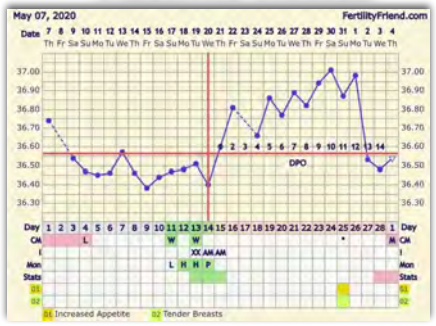


YANG, QI or BLOOD XU

3 MONTHS CHANGE - LPD



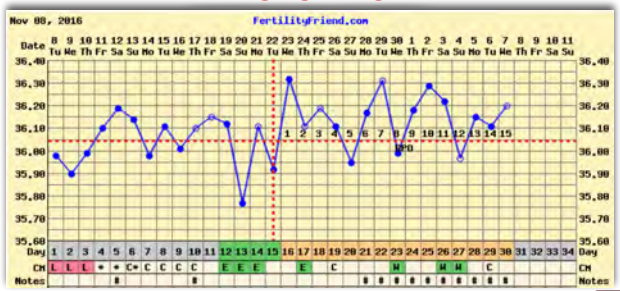
3 MONTHS CHANGE



ANNOVULATORY

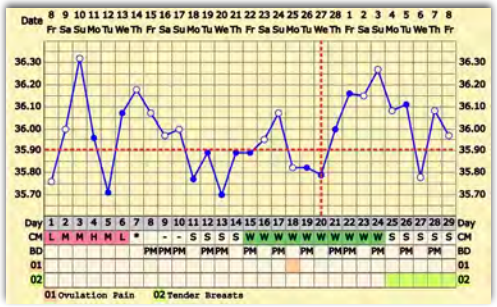
YANG, YIN XU, BLOOD XU/STAG

ANNOVULATORY

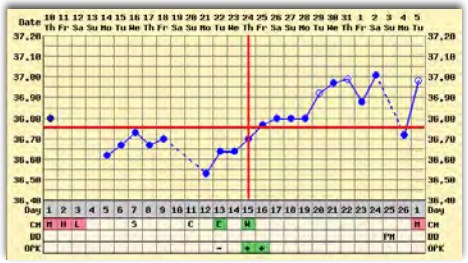


YANG, YIN XU, BLOOD XU/STAG

ANNOVULATORY



GRADULE RISE IN LUTEAL

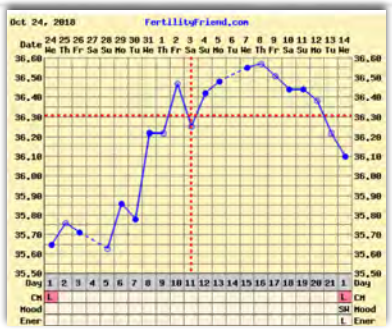


YIN XU, LIV QI, QI XU, BLOOD XU

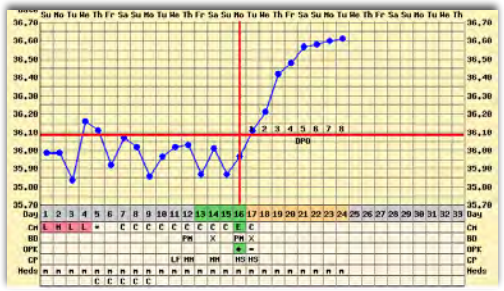
FOLLICULAR PHASE TO SHORT

HEAT, YIN XU

FOLLICULAR PHASE TO SHORT

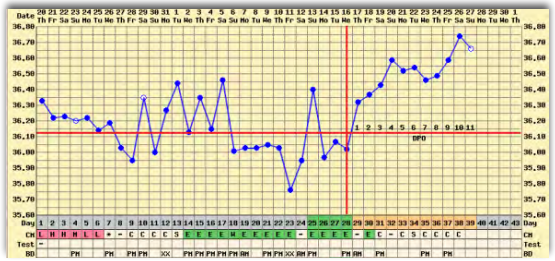


LOW TEMPS IN FOLLICULAR



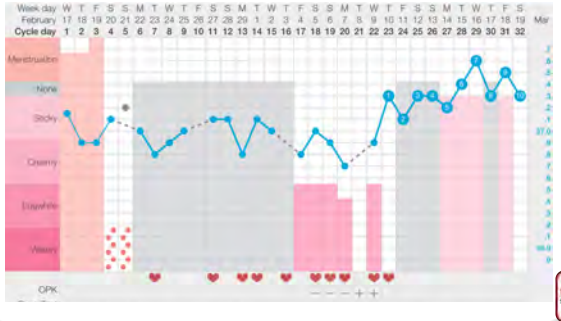
YANG XU OR THYROID

FOLLICULAR PHASE TO LONG



QI STAG, BLOOD XU, HEART/UTERUS

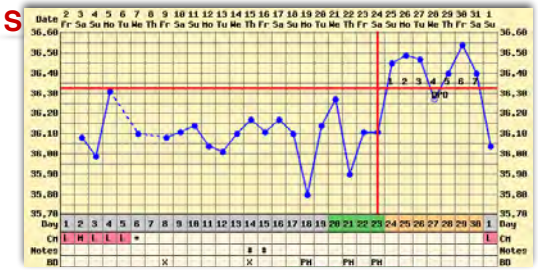
FOLLICULAR PHASE LONG



FOLLICULAR TOO LONG, LUETAL SHORT

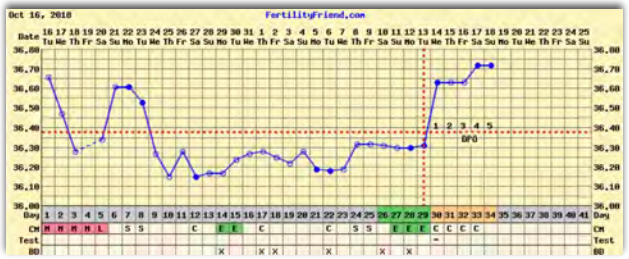
QI STAG, BLOOD XU, PCO(S)

FOLLICULAR TOO LONG, LUETAL S



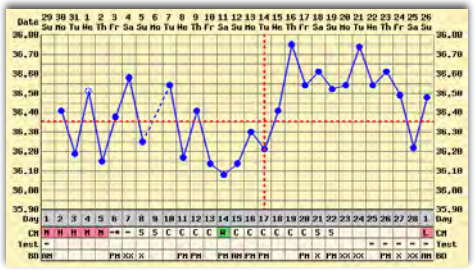
QI STAG, BLOOD XU, PCO(S)

FOLLICULAR TOO LONG, LUETAL

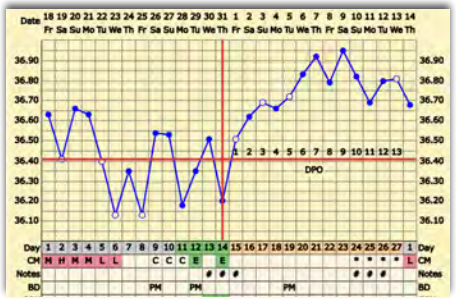


QI STAG, BLOOD XU, PCO(S)

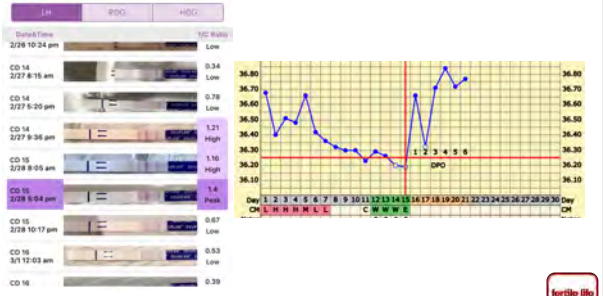
FOLLICULAR TEMP IS HIGH



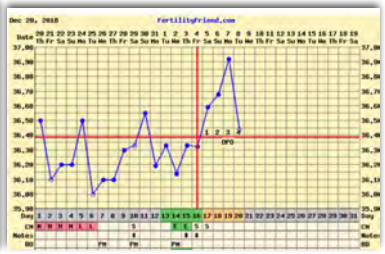
ENDOMETROSIS



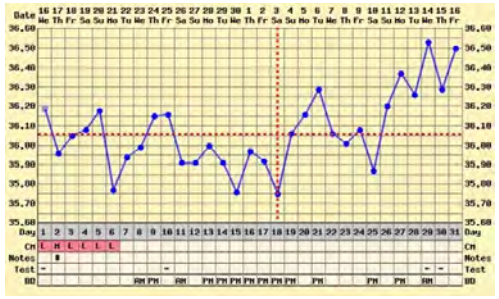
OPK ALONGSIDE BBT



OPK ALONGSIDE BBT



WHERE IS OVULATION?



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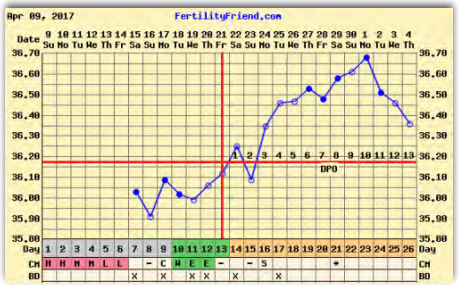

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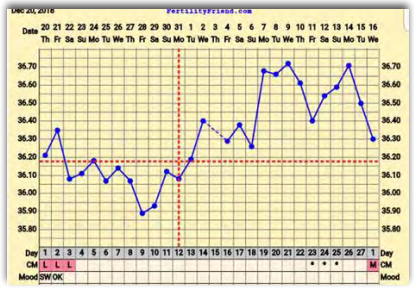

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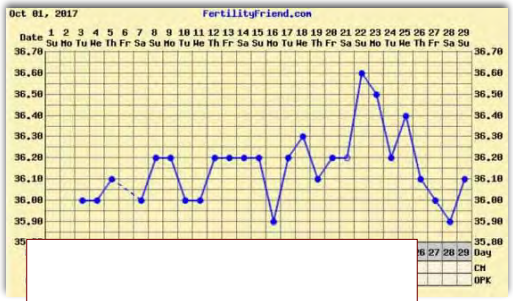

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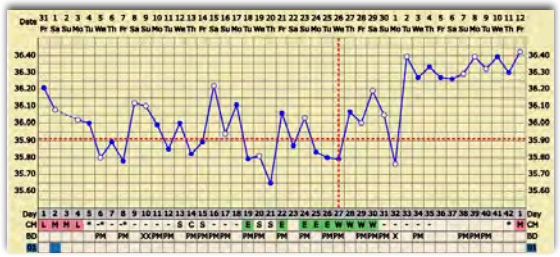

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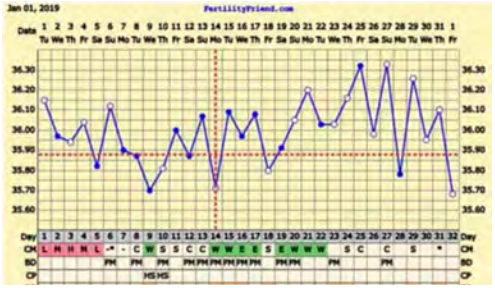

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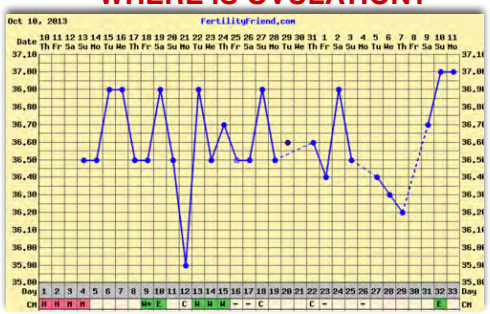

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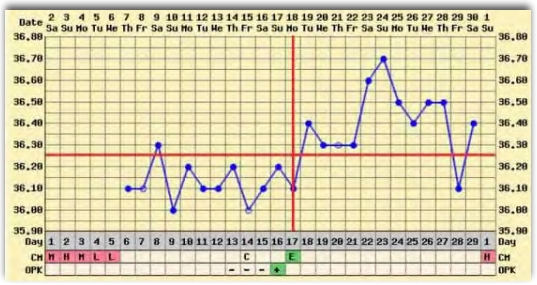

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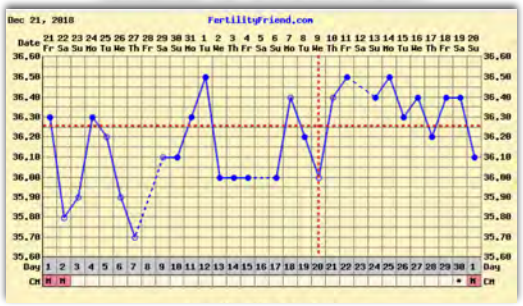

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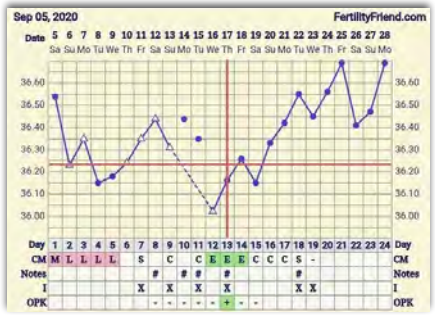
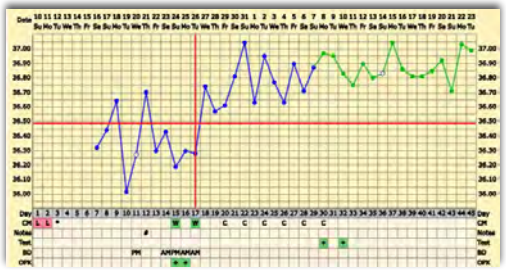
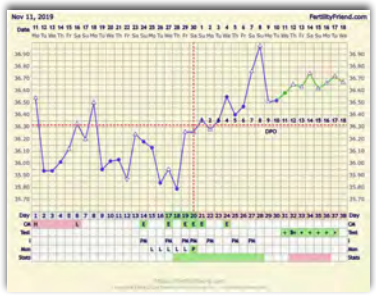


PREGNANT BBT CHART



PREGNANT BBT CHART



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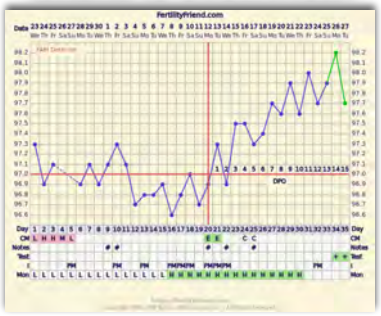

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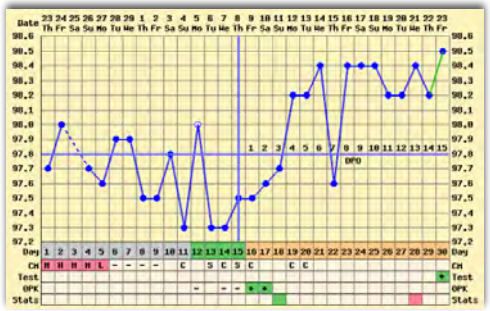
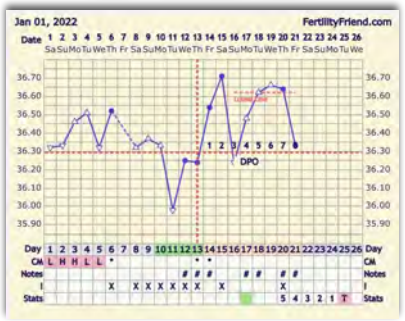


BBT EXAMPLES



BBT EXAMPLES

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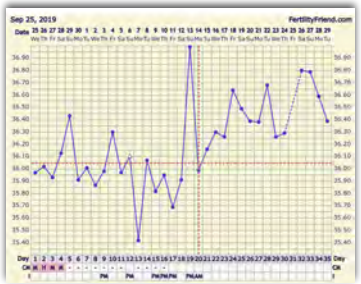

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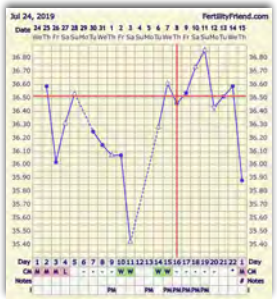

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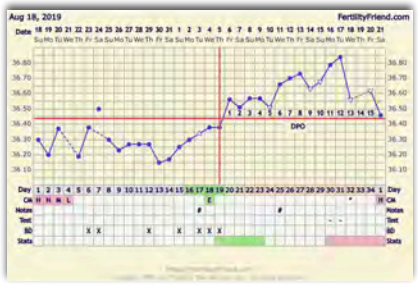
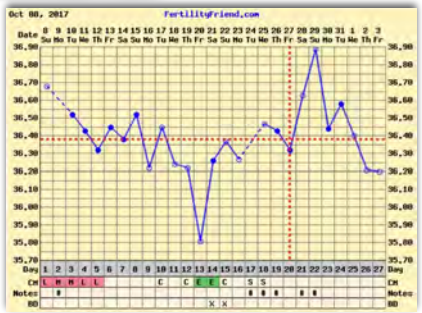


BBT EXAMPLES



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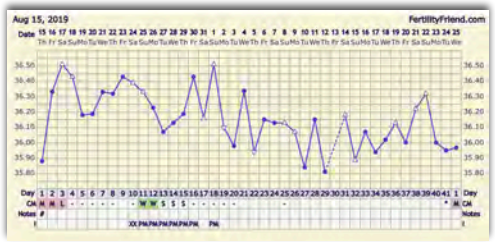


ALCHEMY HERBS I LOW TEMPS

* **Support Yang or build Blood**

* WARM ME UP - You Gui Wan
* NOURISH - Gui Pi Tang
* LIFT ME UP - Bu Zhong Yi Qi Tang
* BLOOD - Si Wu Tang

ALCHEMY HERBS I SEASAW TEMPS

* **Calm shen, move liver qi or move blood stag.**

* NOURISH - Gui Pi Tang
* CHILL OUT - Tain wang Bu Xin Dan
* MOVE - Dang Gui Shao Yao San
* SMOOTH - Wu Jin Wan

ALCHEMY HERBS I SLOW DROP IN FOLLICULAR

* **Move blood stagnantion**

* MOVE - Dang Gui Shao Yao San
* FI - Wen jing tang
* SMOOTH - Wu Jin Wan

ALCHEMY HERBS | TEMPS TO HIGH

* **Clear Heat**

* REWIND - Er Xian Tang
* CHILL OUT - Tian Wang Bu Xin Dan

ALCHEMY HERBS | LUETAL PHASE DEFECT

* **Diagnosis is important - yang xu, blood xu, qi xu or move damp**

* WARM ME UP - You Gui Wan
* MOVE - Dang Gui Shao Yao San
* BLOOD - Si Wu Tang
* BUILD - Ba Zhen Wan
* HOLD - Shao Tai Wan

ALCHEMY HERBS | ANNOVULATORY or CONFUSED

* CONNECT - Si Ni San

ALCHEMY HERBAL FORMULAS

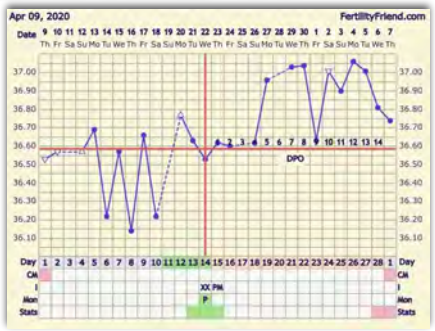
* **Cool and Moisten** (mod Liu Wei Di Huang Wan)
* **Warm Me Up** (mod You Gui Wan)
* **Lift Me Up** (mod Bu Zhong Yi Qi Tang)
* **Hold** (mod Shou Tai Wan)
* **Nourish** (mod Gui Pi Tang)
* **Rewind** (mod Er Xian Tang)
* **Chill Out** (mod Tian Wang Bu Xin Dan
* **Move** (mod Dang Gui Shao Yao San)
* **Connect** (Si Ni San)
* **Build** (Ba Zhen Wan)
* **Blood** (Si Wu Tang)
* **Smooth** (Wu Jin Wan)

ALCHEMY HERBAL FORMULAS

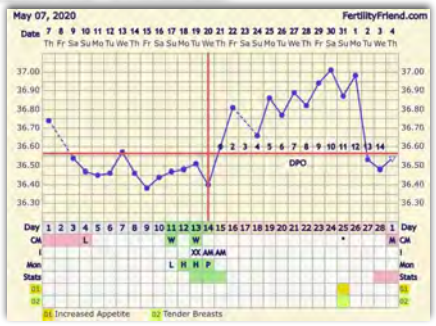
* **Skinny Jean** (Skinny PCOS)
* **Jean** (PCOS)
* **Nikki** (NK cells)
* **Ouch!** (Period pain)
* **Flo** (Endometriosis)
* **Ova** (Promote ovulation)
* **Fi** (Fibroids) - Wen Jin Tang
* **Stop** (Gu Chong Tang)
* **Period** (Tao Hong Si Wu Tang)

CASE STUDIES

3 MONTHS CHANGE - LPD



3 MONTHS CHANGE

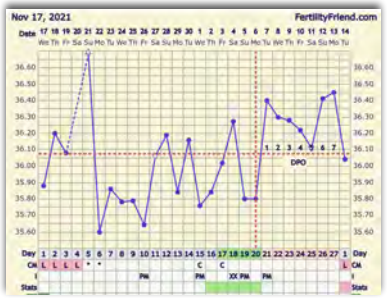


3 MONTHS CHANGE

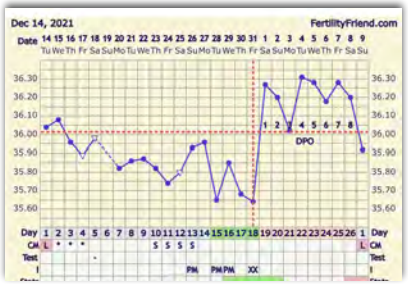
4 MONTHS CHANGE

- Stopped taking pill at end of 2020 was on for 15 years By March no period - got into gyn put on progesterone (each month)
- Thyroid 2.25 was 3.44
- Zinc is 11.9
- DHEA 3.6
- Ultrasound 18 follicles on each side
- BBT with other practitioner - last chart LPD - ovulation moves around
- Supplements currently on
- Omega
- Vit C
- Zinc - 2x
- No vitex prescribed
- Skinny Jean - warm me up
- Yang xu - can get chill planes
- Day 21 after seeing me showed ovulation so no clomid prescribed

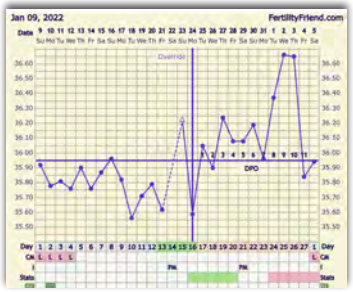
4 MONTHS CHANGE - LPD, PCO,



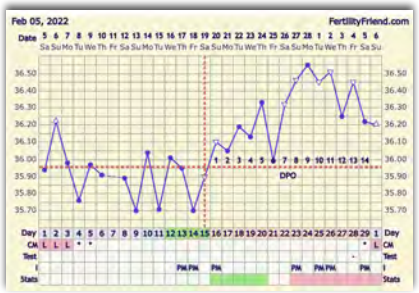
4 MONTHS CHANGE



4 MONTHS CHANGE



4 MONTHS CHANGE



4 MONTHS CHANGE - TX

* Yang Xu
* Skinny Jean - warm me up
* Vitex 3 in morning
* Follicular phase = St 29 (acu stim), Ren 4, Chong Mai, Ren Mai, Buddhas triangle, Sp6, Liv 8, Kid 10, Sp 10, Yintang
* Luteal Phase - Du20, Yintang, Ren 12, 7, Buddhas triangle, Kid 7, Chong Mai, Ren Mai
* Menstruation = Liv 3, Co,4, Sp6, Ren 4, 6, Ht 7, Yintang,

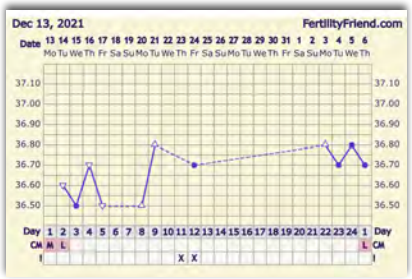
5 MONTHS CHANGE

* In court with custody battle with abusive partner
* Cortisol 259 -
* Anti depressants for panic attacks Valium if feel overwhelmed- not often
* Extreme stress
* Sleep disturbed
* Shen isn't clear
* TTC 6 months with new partner, 2 previous children
* Ferritin 65 - then 59 was on iron supps
* FSH 12, LH 7
* u/sound all clear, confirmed ovualiton7 follicles each side Lining is good

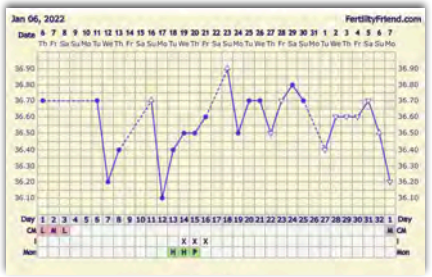
5 MONTHS CHANGE - TX

* Recommended box breathing, taking time to nurture herself
* Alchemy - Nourish
* Panaxea - Tranqwil
* Tresob
* Iron + Liver Tabs

5 MONTH CHANGE I



5 MONTH CHANGE I

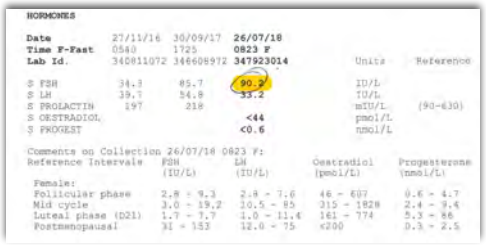


5 MONTHS TX - PREGNANT

EVERY 2ND CHART

BBT EXAMPLE - HIGH FSH - NOURISH

HIGH FSH - NOURISH



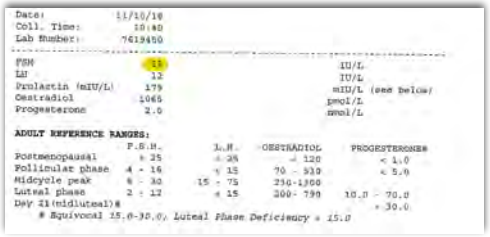
HORMONES

Date	27/11/16	30/09/17	**26/07/18**		
Time F-Fast	0540	1725	**0823 F**		
Lab Id.	340811072	346606972	**347923014**	Units	Reference
$ FSH	34.3	85.7	**90.2**	IU/L	
$ LH	39.7	54.8	**53.2**	IU/L	
$ PROLACTIN	197	218		mIU/L	(90-630)
$ OESTRADIOL			**<44**	pmol/L	
$ PROGEST			**<0.6**	nmol/L	

Comments on Collection 26/07/18 0823 F:

Reference Intervals	FSH (IU/L)	LH (IU/L)	Oestradiol (pmol/L)	Progesterone (nmol/L)
Female:				
Follicular phase	2.8 - 9.3	2.8 - 7.6	46 - 607	0.6 - 4.7
Mid cycle	3.0 - 19.2	10.5 - 85	315 - 1828	2.4 - 9.4
Luteal phase (D21)	1.7 - 7.7	1.0 - 11.4	161 - 774	5.3 - 86
Postmenopausal	31 - 153	12.0 - 75	<200	0.3 - 2.5

HIGH FSH - NOURISH



Date:	11/10/18	
Coll. Time:	10:40	
Lab Number:	76194S0	
FSH	**11**	IU/L
LH	12	IU/L
Prolactin (mIU/L)	179	mIU/L (see below)
Oestradiol	1065	pmol/L
Progesterone	2.0	nmol/L

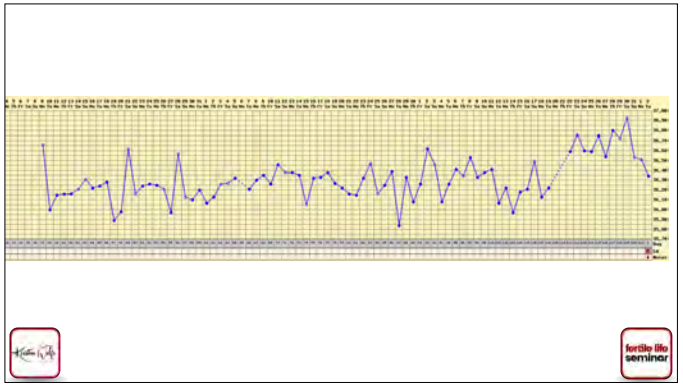
ADULT REFERENCE RANGES:

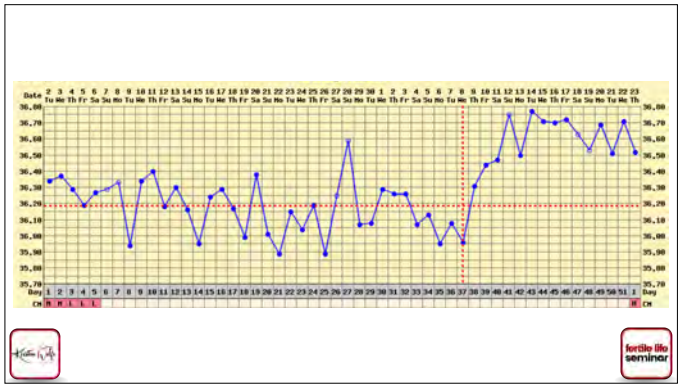
	F.S.H.	L.H.	OESTRADIOL	PROGESTERONE
Postmenopausal	> 25	> 25	< 120	< 1.0
Follicular phase	4 - 16	< 15	70 - 530	< 5.0
Midcycle peak	6 - 30	15 - 75	230-1360	
Luteal phase	2 - 12	< 15	200- 790	10.0 - 70.0
Day 21(midluteal)#				> 30.0

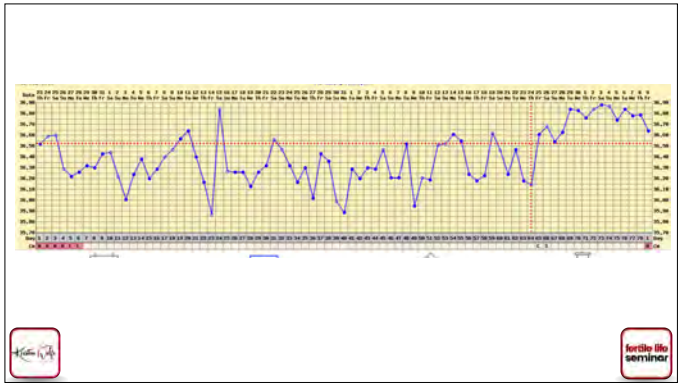
Equivocal 15.0-30.0, Luteal Phase Deficiency < 15.0

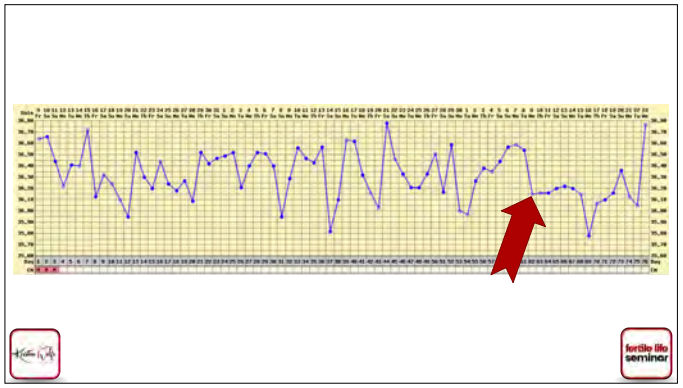
HIGH FSH - NOURISH - NOW .5

CASE STUDIES







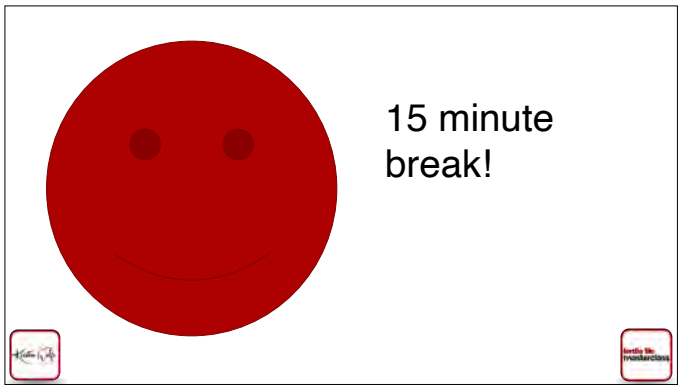


BBT PATTERNS

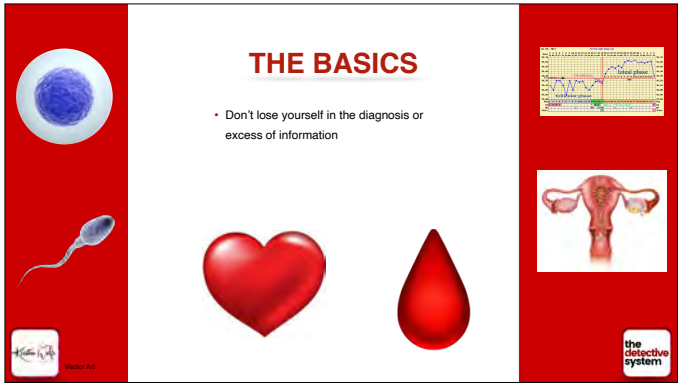
* **Anovulatory** = blood xu/stag, yin xu, yang xu, high FSH, Prolactin, Thyroid
* **Gradual rise to higher temperatures** = yin or blood xu
* **Follicular phase is long** = Qi and Xue xu – estrogen excess, prog def
* **Follicular Temperature is high** = Yin Vacuity Heat, Internal Heat
* **Follicular phase short** = Kid Yin, Jing, Heat or Blood xu heat
* **Low temps in luteal phase** = yang xu - Progesterone
* **Luteal phase dips below cover line** = yang xu, blood xu - Progesterone
* **Short luteal** – yang qi xu
* **Spotting before 10 day past ovulation** – qi xu, stagnation

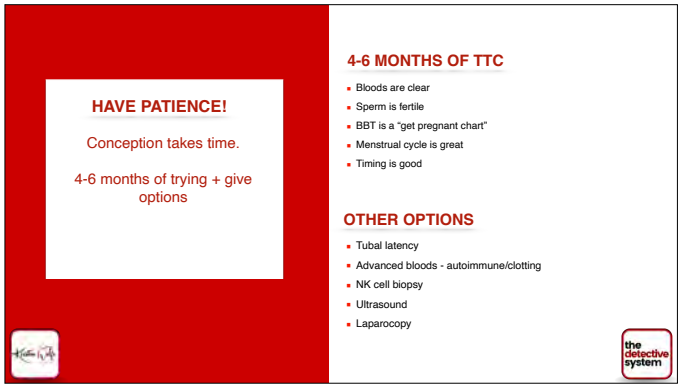
FERTILITY DETECTIVE

* **NOTE: If BBT good, timing good, sperm good, bloods good – if not pregnant within 4 months - further investigations are needed**
* Are tubes blocked?
* Heart shape uterus?
* Laproscopy?
* Blood clotting/Autoimmune
* NK/DQ Alpha
* What is being missed?


15 minute
break!


NATURAL CYCLES
&
TCM
WE CAN DO SO MUCH


THE BASICS
• Don't lose yourself in the diagnosis or excess of information
Vector Art
the detective system

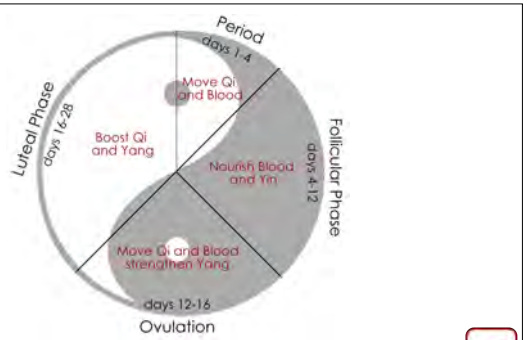

HAVE PATIENCE!
Conception takes time.
4-6 months of trying + give options
4-6 MONTHS OF TTC
Bloods are clear
Sperm is fertile
BBT is a "get pregnant chart"
Menstrual cycle is great
Timing is good
OTHER OPTIONS
Tubal latency
Advanced bloods - autoimmune/clotting
NK cell biopsy
Ultrasound
Laparocopy
the detective system

FERTILE LIFE METHOD

- **Preparation for conception** – This is the starting point for dealing with the underlying issues that are preventing conception. This is a one-off time period , usually 3 months to prepare the body for conception and help to get patient focused, healthy and ready for conception and pregnancy. IVF, we often recommend taking some time out to prepare, even if it is only for a month or two.
- **Optimising conception** – Once completed the preparation time, the body will be in the best possible place to conceive either naturally or with assisted conception. This stage is all about optimising and finely tuning your body to encourage implantation and a healthy pregnancy.
- **Supporting pregnancy and reducing the risk of miscarriage** – It is advisable to support pregnancy particularly through the first 12 weeks with weekly treatments, which is the most delicate time of pregnancy. Then monthly treatment until 36 weeks when we begin Pre Birth Acupuncture.

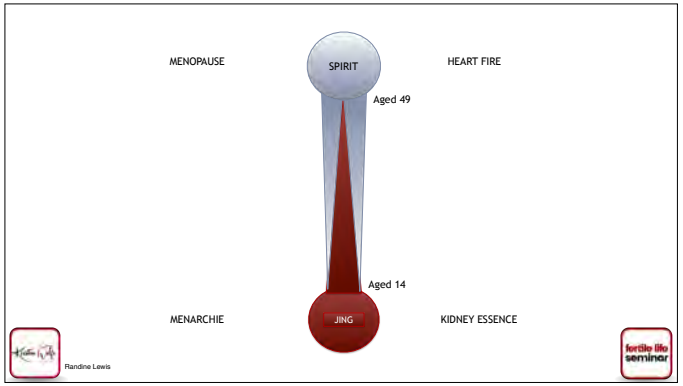
FERTILE LIFE METHOD

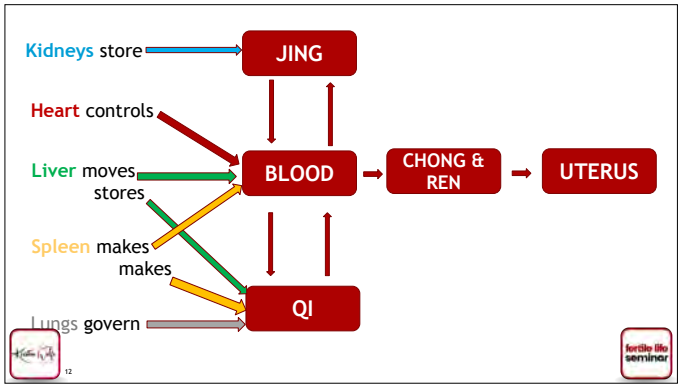
- Treat **CONSTITUTIONAL PATTERN** throughout entire cycle – IT IS VERY SIMPLE!
- Follow menstrual phases emphasizing each phase
- Modify treatment principle to include specific patient imbalance

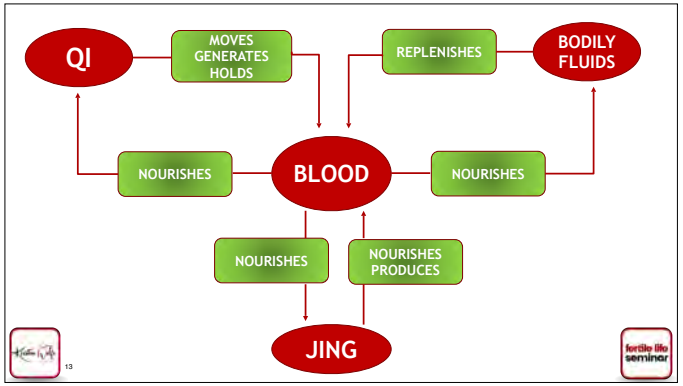


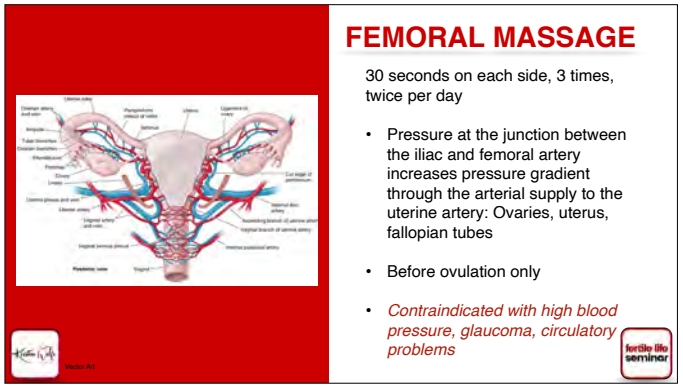
CAUSES OF MENSTRUAL DISEASE

- Exposure to Climactic Factors
- Seven Emotions
- Trauma – abortion, miscarriage, IUD, infections, surgery or injury to pelvis
- Iatragenesis – OTC meds, antibiotics, IUD, hormonal stimulation, surgery
- Diet – hormonally treated animal products, processed foods, too much raw, cold foods
- Exhaustion – usually seen in too much work, overexercise (exhausts yin)
- Drug Use – hormonal stimulation, psychiatric meds
- Sexual Abuse – can sever HPO axis, chong mai, separating Ht and Ki; hinder Ki development during puberty,


MENOPAUSE
SPIRIT
HEART FIRE
Aged 49
Aged 14
MENARCHIE
JING
KIDNEY ESSENCE
Flandine Lewis


Kidneys store
JING
Heart controls
Liver moves
stores
BLOOD
CHONG &
REN
UTERUS
Spleen makes
makes
QI
Lungs govern
12


QI
MOVES
GENERATES
HOLDS
REPLENISHES
BODILY
FLUIDS
NOURISHES
BLOOD
NOURISHES
NOURISHES
NOURISHES
PRODUCES
JING
13


FEMORAL MASSAGE
30 seconds on each side, 3 times, twice per day
• Pressure at the junction between the iliac and femoral artery increases pressure gradient through the arterial supply to the uterine artery: Ovaries, uterus, fallopian tubes
• Before ovulation only
• Contraindicated with high blood pressure, glaucoma, circulatory problems
Vector Art

PATHOLOGY TX IN PHASES

MENSTURATION

Qi Xu
Blood Stag

FOLLICULAR

Qi Xu
Yin Xu
Yang Xu
Blood Xu
Liver Qi Stag

LUTEAL

Yang Xu
Qi Xu
Liver Qi Stag

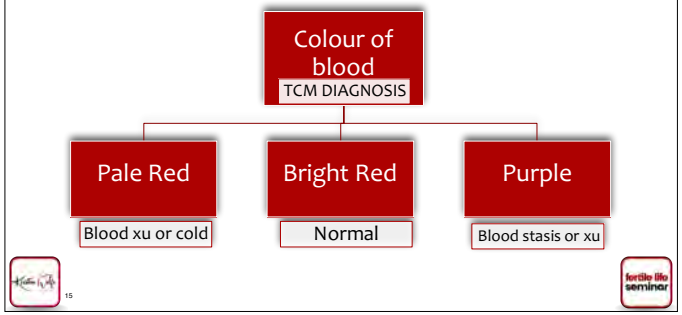
CHANEL ORGAN PATHOLOGY

Ovary:
– Problems with ovulation or before ovulation
– Spleen may be involved
– **Blood builds and increases before ovulation**

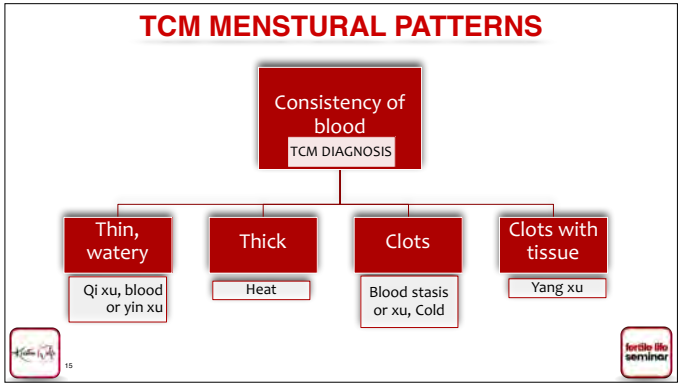
Tube:
– Involves movement
– Egg must move down the tube
– **Move Liver Qi**

Uterus:
– Lining not becoming thick enough (function of blood)
– Implantation problems
– Problems during menstruation
– **Kidney, Chong and Ren Mai**

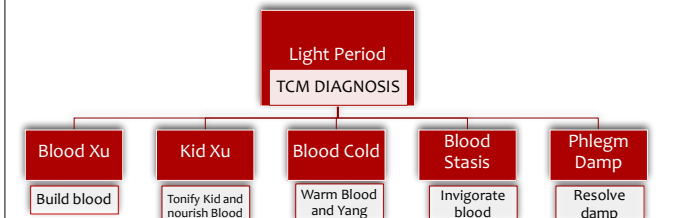
TCM MENSTURAL PATTERNS



TCM MENSTURAL PATTERNS



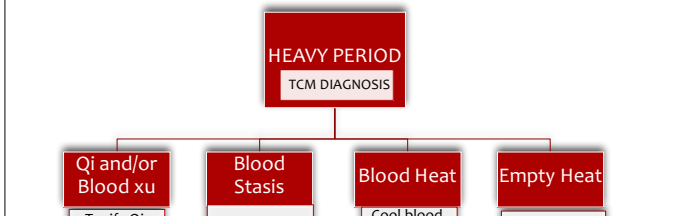
TCM MENSTRUAL PATTERNS



Or the could just be ANAEMIC

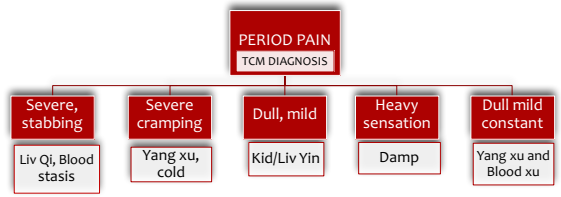
15

TCM MENSTRUAL PATTERNS



15

TCM MENSTURAL PATTERNS



15

CHANNELS

* Ovary traversed by Spleen channel & Dai Mai
* Fallopian tube traversed by Liver channel & Dai Mai
* Uterus is connected to Ren, Chong, Du & Dai Mai
* Heart via the Bao Mai; Kidney via Bao Luo.

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IMPLANTATION

* For implantation to occur there needs to be balance between Yin and Yang in the body and correct flow of qi and blood
* Free of heat, damp and cold
* Timing of implantation is 5-10 day after ovulation
* Lining needs to be at least 6mm
* Hormones Estrogen & Progesterone – at the right levels

"When the vital Essence and the vital force of the male and female unite, water passes between them and assumes form"

ENDOMETRIAL RECEPTIVITY

* 3 phase of receptivity – Neutral – receptive (4-5days) – resistant
* Pinopodes – small finger like protrusions from the endometrium, appear during implantation. Enhanced by progesterone but INHIBITED by ESTROGEN – usually 2 days
* HOXa Gene upregulation – can change expression (turned on or off), code in the DNA that make proteins and can be turned up and down. These are only turned on during implantation window. They know that these need to be there otherwise no pregnancy. Cascade of gene upregulation.

Fibroids, Endometriosis, PCO, hydrosalpynx – are not expressing HOXa gene

Hormones

IMPLANTATION

* APPOSITION – a loose unstable connection with the uterine lining - **Yang and qi movement required to hatch (the force) and lining requires Yin (the acceptance)**
* ATTACHMENT – (short) as embryo attaches becomes more stable and initates the development of the maternal component of the placenta - **lots of qi movement and yin and yang interaction**
* INVASION – Trophoblasts invade the uterine lining & become covered by day 10 and blood supply from mother is complete, her immune system is now engaged – **union of yin and yang**

PHASES OF TREATMENT

MENSTRUATION - move blood and qi, move stagnation – stop pain

Kikko inspired – stop period pain instantly
Sp3, K7 & Ki10

Ren 3, 4, 6 or 7
Liv8 - invigorates blood, benefits uterus, nourishes blood & yin
Sp10 – Builds and moves blood
Co4/Liv3 - four gates
Chong/Ren Mai

PHASES OF TREATMENT

Day 4-11 - Follicular development: tonify kidney yin, move qi and nourish blood, stimulation of ovaries if PCO, amen, LPD

Invigorate Blood, boost Qi, warm uterus, supplement Yang, plus clear yin xu and eliminate dampness

DAY 11 to ovulation - Follicular maturity and promote ovulation: stimulation of ovaries if PCO, amen, LPD

Invigorate Blood, boost Qi, warm uterus, supplement Yang, Nourish yin, blood, move qi, invigorate blood plus clear heat, boost qi

POINTS DAY 4 TO OVULATION

– Chong Mai: Sp4/ P6 +Ren 7 +Ren 17
– Ren Ashi points from CV 2-15 (gummy, stuck)
– Liver: Lv3
– Local site: Ren 3, Ren 4, Abdominal Zi Gong Xue
– Move Blood in Yin channels – Sp6, K5
– Warm Yang (promotes ovulation, affects cervix): K13, K14
– Supplement Yang: K 7
– Blood circulation to Uterus: Ren 3, 4, 6
– Circulate Qi to prevent stagnation and heat: Lv3,
– E-stim low abdomen: Zi Gong Xue to Ren 3, Ren 4 or K14
– Activate Pituitary Gland: UB 1, Yintang
– Hypothalamus: Du20

PHASES OF TREATMENT

FROM OVULATION - Luteal phase: Development of corpus luteum; tonify kidney yang & spleen qi, consolidate the Chong and Ren Mai; lift qi if necessary

Warm Yang, smooth Liver, warm uterus, gently move & nourish Blood, boost Kidney Qi, support corpus luetum.

– Open Ren and Chong: Lu7/K6 + Sp4/P6
– Crossing points: Ren 7
- H7, Ren12, Yintang, Ren 17, Kid 9
– Pituitary: UB 1, Du20

PREGNANCY

Support implantation, blood flow and boost progesterone

My points that I love
Du20, Yintang, Ren12 +7, Ki9, Ki7, Ht7, Ren 17
Buddha's triangle (ht7+pc6+lu9)
Chong/Ren Mai

Bloods to check HCG & Progesterone

Ultrasound at 7 weeks (before that you may not see heartbeat = patient distress

COMMON MISTAKES

* Ferritin stores - often overlooked
* Blood tests not sighted
* Heat = Yin xu when it is blood xu
* High FSH = Yin xu when it is blood or yang xu
* TSH - often overlooked
* Hormones tested on the wrong day
* Having intercouse at the wrong time
* Assuming they ovulate

My fav acu points

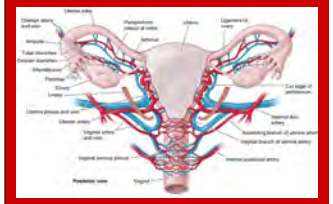
MY FAVOURITE POINTS

* Chong Mai - transform kidney essence into menstrual blood
* Ren Mai - Nourish Yin, promotes fertility, tonifies ovaries, nourish the foetus
* Zi Gong Xue - Palace of Child - stimulates ovaries (Ren 3, 3cun)
* Ren 3 regulate menstruation, moves stagnation
* St 29 - regulate menstruation, restores uterus ability to function, moves stagnation
* Ren 4 - Nourishes blood and yin, strengthens Yang, regulates the uterus, benefits original Qi, tonifies the Kidneys, calms the mind
* St 28 - cold in the uterus
* Ren 6 - sea of qi, warm cold, regulates menstruation
* Ren 7 - crossing point of the Ren and Chong Vessels, regulates menstruation

MY FAVOURITE POINTS

* Spleen 6 - crossing point of Spleen, Liver and Kidney
* Liver 8 - moves and invigorates the uterus and its Blood. Nourishes liver blood
* Kid 10 - Expels dampness from the Lower Burner, tonifies Kidney Yin.
* Buddhas Triangle HT7,P6 & LU9 - Reduce stress & anxiety, calms the mind
* Kid 14 - Crossing point of the KID Meridian and the Chong Vessel. regulates the Lower Jiao, moves Blood stagnation, regulates the Ren and Chong Vessels.
* Sp10 - Cools the blood, removes stasis of blood, regulates menstruation, tonifies blood.

FEMORAL MASSAGE



30 seconds on each side, 3 times, twice per day

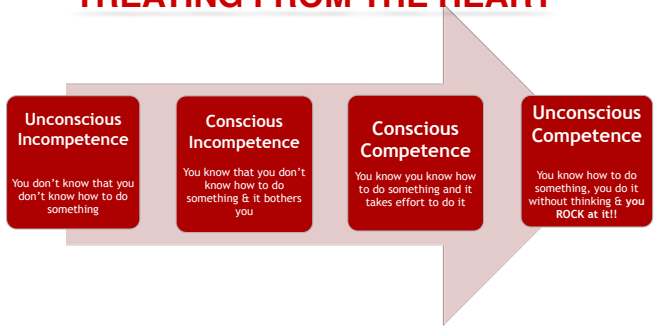
- Pressure at the junction between the iliac and femoral artery increases pressure gradient through the arterial supply to the uterine artery: Ovaries, uterus, fallopian tubes
- Before ovulation only
- *Contraindicated with high blood pressure, glaucoma, circulatory problems*

ACU STIM

CUPPING THE NAVEL

MOXA

TREATING FROM THE HEART



STATE MANAGEMENT

In NLP there is no such thing as an un-resourceful person, just an un-resourceful state. Being able to manage your state so that you are able to remain resourceful even in the most challenging of situations is clearly something that is of huge value when dealing with fertility patients!

All states are caused by the interaction between your thinking patterns, your physiology and your neurochemicals. Changing any of these can influence your state.

The ability to change your state and choose how you feel is one of the skills for emotional freedom and a happy life. Emotional freedom does not mean never feeling negative but does mean you are more aware of those feelings.

CONNECTING WITH YOUR PATIENT

* To build rapport you don't have to like or agree to the other person's model of the world, but you have to at least understand it.
* Take a genuine interest in getting to know what's important to the other person. Start to understand them rather than expecting them to understand you first.
* Pick up on the key words, favourite phrases and ways of speaking that someone uses and build these subtly into your own conversation.
* Notice how someone likes to handle information. Do they like lots of details or just the big picture?
* As you speak feed back information in this same portion size.
* Breathe in unison with them.
* Look out for the other person's intention —their underlying aim —rather than what they do or say. They may not always get it right, but expect their heart to lie in the right place.
* Adopt a similar stance to them in terms of your body language, gestures, voice tone and speed.

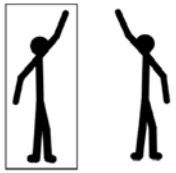
TRUSTING YOUR TREATMENT

Opening up communication between your unconscious and conscious mind

ACTIVE LISTENING

Rapport

7% = Words (Conscious)
38% = Tone of Voice (Unconscious)
55% = Physiology (Unconscious)



FERTILITY TESTING

A great tool

HAVE ALL THE BLOODS BEEN CHECKED??

* Have you sighted ALL of them?
* Have hormones been checked on the correct day of cycle?
* Order the bloods that have not been done
* Know your reference ranges
* Are they on the right medication in accordance to anything that comes up on the blood tests?

FURTHER INVESTIGATIONS - WHEN?

* Blood clotting bloods
* Auto immune bloods
* D&C can = Ashermans

FERTILITY BLOODS

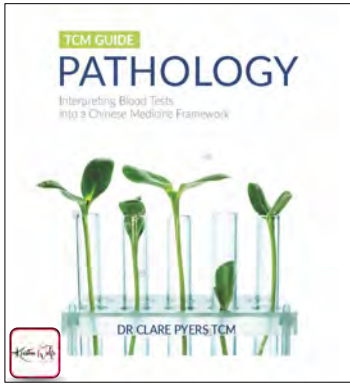
Bloods give us an insight into what we can't see or confirms our diagnosis

HORMONAL BLOODS DAY 3

- FSH
- LH
- Oestrogen
- Testosterone
- DHEA
- Progesterone (Day 21)

OTHER BLOODS

- VIT D
- VIT B
- ZINC
- THYROID PANEL
- FBE
- IRON STORES



Integrative TCM

Clare Pyers

https://clarepyers.com

FEMALE BLOODS TESTS

- **FBE (Full blood analysis)**
- **Ferritin stores (extremely important) - BLOOD – SP & LIV**
- **Vitamin D**
- **FSH (Follicle Stimulating Hormone) – Day 3 - KID**
- E2 (Estradiol) – Day 3 – BLOOD, JING
- LH (Luteinizing Hormone) – Day 3
- SHGB
- Prolactin
- **Progesterone Day 21 test (must take 7 days after ovulation) – YANG QI**
- Free Testosterone (TTF)
- DHEA-S
- Cortisol
- TSH (Thyroid Stimulating Hormone) plus T3 T4 and Reverse T3
- Thyroid antibodies
- TSI (THYROID STIMULATING IMMUNOGLOBULINS)

HORMONES FROM TCM LENS

- **Estrogen Low** = premature ovarian failure - **Tonify Yin and Blood**
- **Excess Estrogen** = **Blood and qi xu**
- **High FSH** = premature ovarian failure, ovulation is earlier than day 12 – **Yin xu fire – note it can also show up and Kid Yang Xu/blood xu**
- **LH high** = **Qi xu, Damp**
- **LH low** = **Blood xu. Yin xu**
- **Progesterone deficiency** = Luteal Phase Defect - **Qi xu, blood xu and Yang xu**
- **Excess Androgens** = PCOS – **Heat, damp or qi stagnation**
- **Testosterone low** = **Yin xu, blood xu**

HORMONES FROM TCM LENS

* **DHEA Low** = premature ovarian failure, adrenal fatigue - Tonify Yin/yang and Blood
* **DHEA high** = Blood and qi xu
* **Thyroid gland disorders**
  * TSH too high – low thyroid hormones - yang and qi xu
    TSH too low – higher than normal T3, T4 - heat, stagnation
* **Pituitary gland disorders** (Prolactin, LH, LH/FSH Ratio) = Regulate Heart/ Kid/Uterus
* **Prolactin High** = possible pituitary tumour, PCOS, breastfeeding

HORMONES FROM WESTERN MED LENS

- **FSH** (Follicle Stimulating Hormone) Follicular Phase: <10 IU/L expect good response to stims
  * 10-12 IU/L fair response
  * 12-15 IU/L reduced response
  * 15-20 IU/L poor egg quality
  * >20 IU/L expect no response
* **Low E2** – poor ovarian response, Oral contraceptives are associated with very low levels
* **High E2** – May mean functional cyst is present, or diminished liver clearing
* **LH** (Luteinizing hormone)
  * CD 2 or 3: 2.8 - 6 IU/L
    Midcycle 14–110 IU/L
* **High LH/FSH ratio** - Normally, the LH should be half of the level of the FSH, or at the very most the same.
* If this ratio is reversed, and the level of LH is double that of FSH on cycle day 3 – **potential PCOS**

HORMONES FROM WESTERN MED LENS

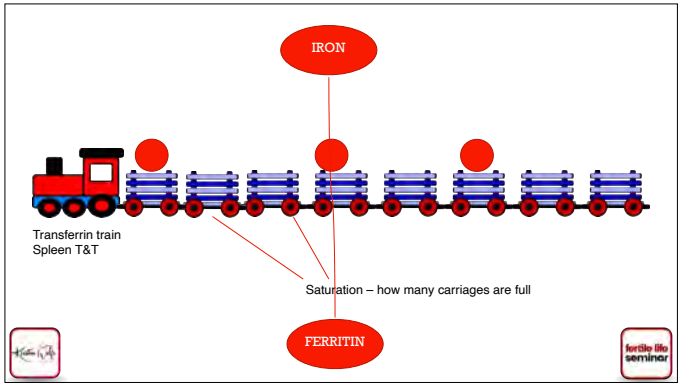
- Thyroid Stimulating Hormone (TSH): 0.5 to 2.5mU/L
- T3: 4.5 – 5.6 pmol/L
- T4: 15-19 pmol/L
- Reverse T3: <300 pg/L
- Total Testosterone: .2 to 1.5 pmol/L
- Free Testosterone: 0.7 to 3.6 pg/ml
- DHEA: 5-6 umol/L
- Progesterone - 7 days after ovulation
  - – Day of LH Surge: <1 mmol/L
  - – Mid Luteal Phase 30-80 mmol/L
- Prolactin: 100-300 nmol/L

WESTERN PERSPECTIVE

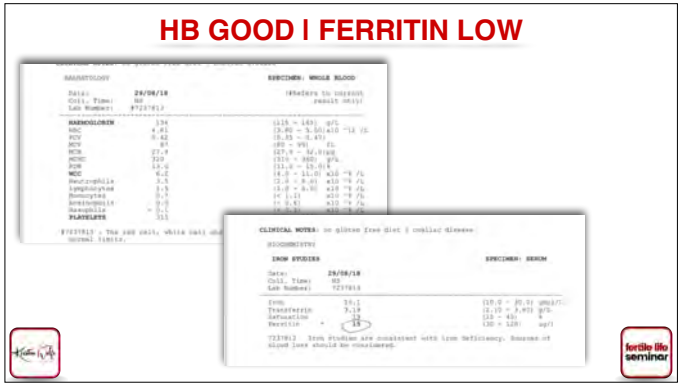
- red blood cells, white blood cells, platelets, nutrients, other proteins, electrolytes and water
- transporting the following: hormones; oxygen from the lungs to the cells; carbon dioxide back to the lungs for exhalation; nutrients into the cells, and metabolic waste for future elimination.

CHINESE MEDICINE PERSPECTIVE

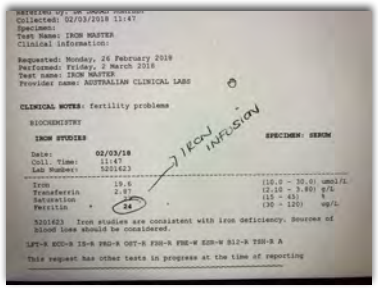
- ensures nourishment & moisture for the entire body
- keeps our tendons, skin and hair healthy, strong and flexible.
- lubricates joint
- nourishes the mind
- **Nourishes the ovaries and produces menstrual blood**



HB GOOD I FERRITIN LOW



FERRITIN LOW



Collected: 02/03/2018 11:47
Specimen:
Test Name: IRON MASTER
Clinical information:

Requested: Monday, 26 February 2018
Performed: Friday, 2 March 2018
Test name: IRON MASTER
Provider name: AUSTRALIAN CLINICAL LABS

CLINICAL NOTES: fertility problems

BIOCHEMISTRY

IRON STUDIES — SPECIMEN: SERUM

	Date: 02/03/18	
	Coll. Time: 11:47	
	Lab Number: 5201623	
Iron	19.6	(10.0 - 30.0) umol/L
Transferrin	2.87	(2.10 - 3.60) g/L
Saturation	*	(15 - 45) %
Ferritin	* 24	(30 - 120) ug/L

5201623 Iron studies are consistent with iron deficiency. Sources of blood loss should be considered.

LPT-R ECO-R IS-R PRG-R OST-R FSH-R FNE-W ESR-W B12-R TSH-R A

This request has other tests in progress at the time of reporting

IRON INFUSION

TCM/INTEGRATIVE TX

* Metagenics Advanced Hemagenics or BioHeme + Liver capsules
* Mediherb Fe Max
* Iron infusion
* Malflor
* Treat according to constitutional pattern
* Nourish, warm me up, blood, build

BLOOD TEST EXAMPLES

Sight the test always!

HORMONE PANEL

HORMONES

Test Name	Result	Units	Reference Interval
S FSH	12.3	IU/L	
LH	5.4	IU/L	
S Oestradiol	93	pmol/L	
Progesterone	1.7	nmol/L	

Comments

Reference intervals	FSH (IU/L)	LH (IU/L)	Oestradiol (pmol/L)	Progesterone (nmol/L)
Female:				
Follicular phase	2.8 - 9.3	2.8 - 7.6	46 - 607	0.6 - 4.7
Mid cycle	3.0 - 19.2	10.5 - 85	315 - 1828	2.4 - 9.4
Luteal phase (D21)	1.7 - 7.7	1.0 - 11.4	161 - 774	5.3 - 86
Postmenopausal	31 - 153	12.0 - 75	<200	0.3 - 2.5

FBE

Test Name	Result	Units	Reference Interval
HAEMOGLOBIN	126	g/L	115 - 160
Haematocrit	0.40		0.35 - 0.47
Red cell count	4.0	x10^12/L	3.7 - 5.2
M.C.V.	98	fL	80 - 100
M.C.H.	31	pg	27 - 34
M.C.H.C.	318	g/L	310 - 360
RDW	13.3		11 - 17
PLATELETS	254	x 10^9/L	150 - 450
WHITE CELL COUNT	5.7	x10^9/L	4.0 - 11.0
Neutrophils	3.4	x10^9/L	2.0 - 7.5
Lymphocytes	1.8	x10^9/L	1.0 - 4.0
Monocytes	0.4	x10^9/L	0 - 1.0
Eosinophils	0.1	x10^9/L	0 - 0.5
Basophils	0.0	x10^9/L	0 - 0.3

FBE

Test Name	Result	Units	Reference Interval
S Sodium:	140	mmol/L	135 - 145
S Potassium:	3.8	mmol/L	3.5 - 5.5
S Chloride:	104	mmol/L	95 - 110
S Bicarbonate:	24	mmol/L	20 - 32
S Urea:	5.6	mmol/L	2.5 - 7.0
S Creatinine:	65	umol/L	45 - 85
eGFR	>90		
S Bilirubin:	10	umol/L	3 - 15
S Alkaline Phosphatase:	56	U/L	20 - 105
S Gamma-GT:	15	U/L	5 - 35
S ALT:	13	U/L	5 - 30
S AST:	16	U/L	10 - 35
S Total Protein:	68	g/L	64 - 81
S Albumin:	40	g/L	33 - 46
S Globulin:	28	g/L	26 - 41
S Iron:	18	umol/L	5 - 30
S Transferrin:	2.6	g/L	2.0 - 3.6
Transferrin Saturation:	28	%	10 - 45
S Ferritin:	36	ng/mL	30 - 300

IRON STUDIES

MULTIPLE BIOCHEMICAL ANALYSIS

Test Name	Result	Units	Reference Interval
S Iron:	12	umol/L	5 - 30
S Transferrin:	2.1	g/L	2.0 - 3.6
Transferrin Saturation:	23	%	10 - 45
S Ferritin:	34	ng/mL	30 - 200

THYROID

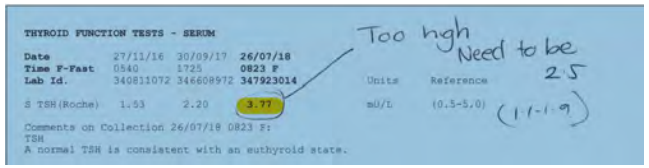
THYROID FUNCTION TESTS

Test Name	Result	Units	Reference Interval
TSH (Roche)	6.1 H	mU/L	0.5 - 5.0
FT4(Abbott)	10.0	pmol/L	9.0 - 19.0
FT3(Abbott)	3.8	pmol/L	2.6 - 6.0

Comments

Noted on thyroid hormone replacement. An elevated TSH raises the possibility of under-replacement or poor compliance. If the dosage is altered, a repeat test is usually not required until 6 weeks after.

THYROID



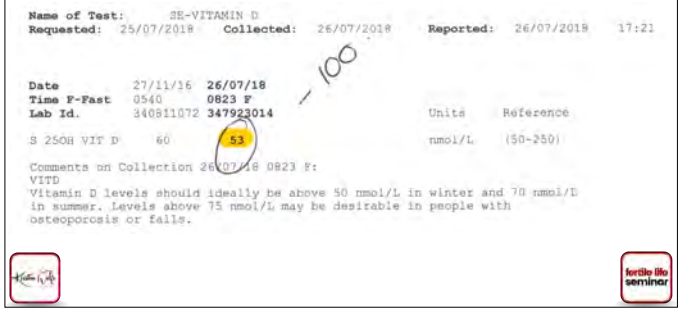
THYROID FUNCTION TESTS - SERUM

Too high Need to be 2.5

Date	27/11/16	30/09/17	**26/07/18**			
Time F-Fast	0540	1725	**0823 F**			
Lab Id.	340811072	346608972	**347923014**	Units	Reference	
S TSH(Roche)	1.53	2.20	3.77	mU/L	(0.5-5.0)	(1.1-1.9)

Comments on Collection 26/07/18 0823 F:
TSH
A normal TSH is consistent with an euthyroid state.

VIT D



Name of Test: 3E-VITAMIN D
Requested: 25/07/2018 **Collected:** 26/07/2018 **Reported:** 26/07/2019 17:21

- 100

Date	27/11/16	**26/07/18**			
Time F-Fast	0540	**0823 F**			
Lab Id.	340811072	**347923014**	Units	Reference	
S 25OH VIT D	60	53	nmol/L	(50-250)	

Comments on Collection 26/07/18 0823 F:
VITD
Vitamin D levels should ideally be above 50 nmol/L in winter and 70 nmol/L in summer. Levels above 75 nmol/L may be desirable in people with osteoporosis or falls.

ZINC

Zinc

Zinc

Zinc plasma	12.5	umol/L	9.0 - 19.0

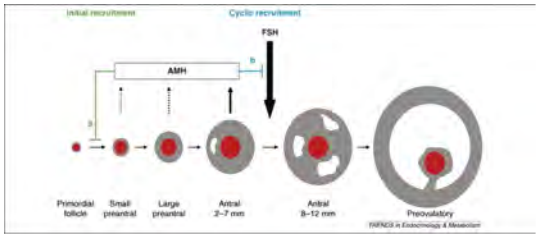
MELBOURNE PATHOLOGY NATA NO 2133

DHEA

HORMONES

Test Name	Result	Units	Reference Interval
S DHEA Sulphate:	3.7	umol/L	1.7 - 11.7

AMH



BLOOD CLOTTING & AUTOIMMUNE

Down the rabbit hole

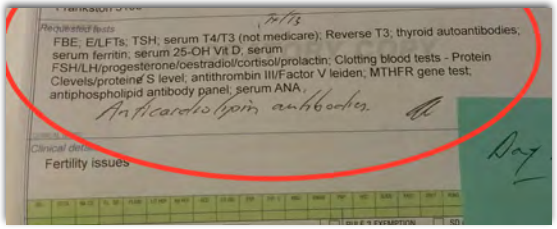
Implantation Failure / Recurrent Miscarriage

Implantation is the pivotal event in achieving pregnancy. Most pregnancy failures occur around the time of implantation. The diagnosis of implantation failure is usually considered if either no obvious cause for a couple's infertility can be detected or if repeated IVF attempts have failed despite the successful transfer of an adequate number of morphologically normal embryos.

Implantation failure can occur due to problems with embryos or with the endometrium which can be **hormonal or immunologic in nature**.

Implantation Failure bloods useful in the diagnosis of immunologic factors contributing to implantation failure.

MISCARRIAGE BLOODS



RECURRENT MISCARRIAGE BLOODS

Clotting blood tests
- Protein C levels
- Protein S levels
- Protein Z
- Factor evaluation (VII, VIII, IX, XI)
- Antithrombin III
- Prothrombin Gene Mutation
- Thrombomodulin gene variations
- MTHFR

Thyroid Panel
- TSH
- T3
- T4
- thyroid antibodies

Antiphospholipid Antibody Panel;
- Anticardiolipin -- IgG, IgM, IgA
- Antiphosphoglycerol -- IgG, IgM, IgA
- Antiphosphoserine -- IgG, IgM, IgA
- Antiphosphoethanolamine s -- IgG, IgM, IgA
- Antiphosphatidic acid -- IgG, IgM, IgA
- Antiphosphoinositol -- IgG, IgM, IgA
- Activated partial thromboplastin time (APTT)
- Lupus anticoagulant (LA)

Antinuclear Antibody Panel;
- ANA Titer
- Double stranded DNA
- SSA
- SSB
- RNP
- SM

IMPLANTATION FAILURE - NICK LOLAGITIS

Cystic Fibrosis
Y Deletion (Daz gene) Prothrombin gene mutation Factor V Leiden mutation MTHFR mutation
AMH
Urine Iodine

Karyotye
FBE
Hb Electrophoresis
Lupus Anticoagulant Protein C
Protein S
Antithrombin
APCR
Anticardiolipin Abs

MTFHR & Homocysteine

Beta 2 Glycoprotein
Coag Screen
ANA
ENA
Anti DNA Abs
Enomysial Abs
HbA1c
Antithyroid Peroxidase Abs Fragile X

T3, T4, TSH HTLV 1& 2 Hep B
Hep C

HIV 1 & 2 Prolactin Vit D
Iron Studies Rubella Toxoplasma CMV

Parvo Abs
MSU
Varicella
Syphilis
Blood Group and Abs Screen Antithyroglobulin Abs

GTT (2 hr fasting)

DQ Alpha

NK - Biopsy

CLOTTING FACTORS

Thrombophilia is increased tendency to clot. Throughout an entire normal pregnancy, the mother's ability to produce blood clots in the uterus and the placenta is suppressed. However, in some mothers, this clotting tendency is not suppressed sufficiently.

- Protein C
- Protein S
- Protein Z
- Antithrombin III
- Factor V Leiden
- Prothrombin Gene Mutation
- Thrombomodulin gene variations
- MTHFR C677T & Homocysteine
- Factor evaluation (VII, VIII, IX, XI)

TX: ASPRIN is an anti-inflammatory and antiplatelet agent. Known as baby asprin at 100 mg per day. CLEXANE injections to thin the blood

AUTOIMMUNE BLOODS

Antiphospholipid antibodies (APA)	autoimmune
Antinuclear antibodies (ANA)	autoimmune
Natural killer cells	autoimmune
HLA DQ ALPHA -Blocking (protective) antibodies	alloimmune
Thyroid Antibodies	Autoimmune

*When the immune system is the cause of miscarriage, the chances of mother having a successful pregnancy without treatment after **three miscarriages is 30%,** after **four miscarriages 25%,** and after **5 miscarriages 5%.***

NK CELLS

Your biopsy has come back showing you have tested positive for Natural Killer Cells.

Natural killer cells are part of your immune system and they can attack the growing embryo. When an embryo implants it is a very invasive process and the growing cells invade and replace cells of the endometrium in order to establish a proper connection with the maternal tissue. The natural killer cells interpret the invading trophoblast, or pregnancy, as an early aggressive cancer and subsequently destroys the placenta leading to a miscarriage or stops the embryo from implanting. Natural killer cells can destroy the embryo.

The body has a natural defence against natural killer cells that would destroy the embryo or foetus. Special antibodies called blocking antibodies and T regulatory cells accomplish the task by literally turning off enough killer cells so they do not perceive that the growing embryo is a an early cancer.

If the mother's defence system however doesn't do the job of neutralising killer cells, miscarriage or failure of implantation results.

Because you have a large number of natural killer cells I will suppress these with Dexamethasone, Intralipid and Clexane and hopefully we will achieve a pregnancy.

I will discuss this with you further at your next appointment.

Yours sincerely,

DR NICK LOLATGIS

fertile life seminar

NK REPORT

Observation	Values	Units
HISTOPATHOLOGY OF BIOPSY MATERIAL	PATHOLOGY PERFORMED BY ANATPATH Report data as at: 17:41:34 04 Jun 2021 For REQUEST on 03 Jun 2021 HISTOPATHOLOGY OF BIOPSY MATERIAL CLINICAL NOTES: Surrogate. Endometrial biopsy for histology and NK cells. MACROSCOPIC DESCRIPTION: Labelled with patients details only - a small amount of pale tan tissue 10mm x 10mm x 3mm. A1. (FS/jo/nb) MICROSCOPIC DESCRIPTION: The biopsy includes endometrium in which there are early secretory pattern glands, some of which feature luminal secretion, separated by focally oedematous stroma. There is no evidence of chronic endometritis, endometrial hyperplasia or malignancy. Immunoperoxidase staining for CD56, a marker of natural killer cells, shows large numbers of stromal cells with positive staining at a rate of the order of 20 cells per high power field. DIAGNOSIS: ENDOMETRIAL BIOPSY - EARLY SECRETORY PHASE ENDOMETRIUM, POST OVULATORY DAY 4-5. NATURAL KILLER CELLS ARE DEMONSTRATED AT A RATE OF THE ORDER OF 20 CELLS PER HIGH POWER FIELD. Dr Maxine Scelwyn Validated by Dr. Maxine Scelwyn 15:44 04 Jun 2021	

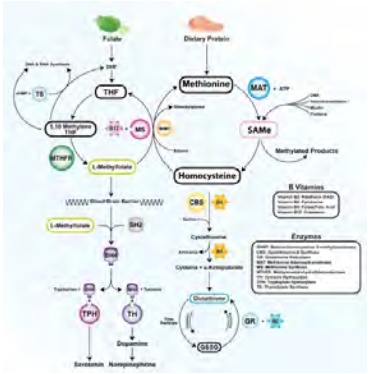
fertile life seminar

MTHFR

* **MTHFR** – is a recessive gene that leads to an accumulation of high levels of homocysteine that subsequently promotes thrombophilia
* MTHFR gene resides in each and every cell in the body. It is responsible for utilizing folic acid and producing the active form of folate called methylfolate (5MTHR) in the Methylation cycle. MTHFR gene polymorphism may contribute to elevated homocysteine levels,
* **MTHFR C677T** Heterozygous = 40% decreased ability to produce methylfolate
  MTHFR C677T Homozygous = 70% decreased ability to produce methylfolate
  MTHFR A1298C Heterozygous = 20% decreased ability to produce methylfolate
  MTHFR A1298C Homozygous = between 50-70%
  MTHFR C677T & MTHFR A1298C heterozygous = compound heterozygous = 50% decreased ability to produce methylfolate
* **Acupuncture & herbs will balance the body therefore homocysteine levels.**

HOMOCYSTEINE

* **Homocysteine** – is an amino acid that, when elevated, can adversely affect many factors involved in the clotting pathway. It can either enhance blood clotting (procoagulation) activity or reduce the ability to stop blood clotting (anticoagulation).
* Elevated homocysteine levels can be acquired by vitamin deficiencies (folic acid, vitamins B6 and B12 recycles it). **B6 breaks down by Homocysteine**
* Or elevated homocysteine levels can be inherited as a genetic defect in the enzyme MTHFR, an enzyme involved in the conversion of homocyeteine.
* High homocysteine levels make it harder to conceive, increase the risk of early miscarriages and increase the chance of pregnancy complications eg down syndrome.
* **Acupuncture alone will balance the body therefore homocysteine levels. Eat less, move more & reduce stress! Blood range ideally at 6-7**



Vector Art

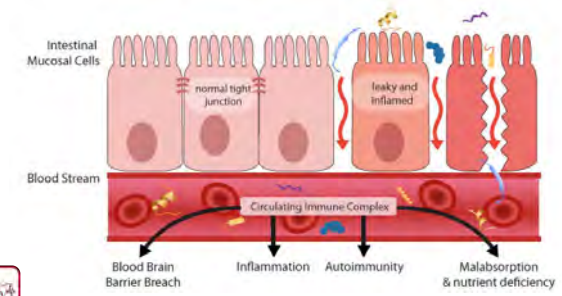
MTHRF

* With adequate folate there is no increased risk! You can supplement to fix and it does it matter which Folate?????? Yes.
* **REMEMBER: If you are getting clinical success then you are already treating methylation**
* ***The most common therapy requires taking a combination of Folic Acid (synethic form of folate) B9; B6 and B12. Why? These three main vitamins can be used by the body to convert homocysteine amino acids into other products in the blood, to keep it from clotting unnecessarily.***
* ***L-5MTHF or Folinic acid instead of Folic acid***

TX FROM A TCM PERSPECTIVE

Regardless of the appearance of these immunologic factors, whether they are diagnosed as antinuclear antibodies, anticardiolipin antibodies, antiphospolipid antibodies, anti-lupus anticoagulant, natural killer cells, increased clotting factors, or the expression of the MTHFR gene; **the immune system must be retrained so it knows which aspects of self/non-self are safe and which are harmful. = ACUPUNCTURE :)**

GLUTEN




ANTI-INFLAMMATORY DIET
Foods to Avoid:
Grains
amaranth
barley
buckwheat
bulgur
corn
farro
kamut
millet
oats
quinoa
rice
rye
sorghum
spelt
teff
wheat
Beans + Legumes
adzuki beans
black beans
black-eyed peas
chickpeas
fava beans
lentils
lima beans
peanuts
kidney beans
soybeans
Eggs
chicken
duck
goose
Nightshades
cayenne
chili pepper
eggplant
goji berry
ground cherry
habañero
jalapeno
paprika
poblano
potato
sweet pepper
tobacco
tomato
tomatillo
wolf berries
Seeds
anise
cannile
caraway
chia
coriander
cumin
fennel seed
fenmugreek
mustard
nutmeg
poppy
pumpkin
sesame
sunflower
hemp
Nuts
almond
brazil
coffee
cocoa
hazelnut
pecan
macadamia
walnut
Dairy
butter
cheese
cream
cream cheese
ghee
milk
yogurt
Alcohol
NSAIDs
aspirin
ibuprofen
naproxen
Optional Restrictions:
fruit
starchy vegetables
gluten cross-reactive foods
FODMAPs
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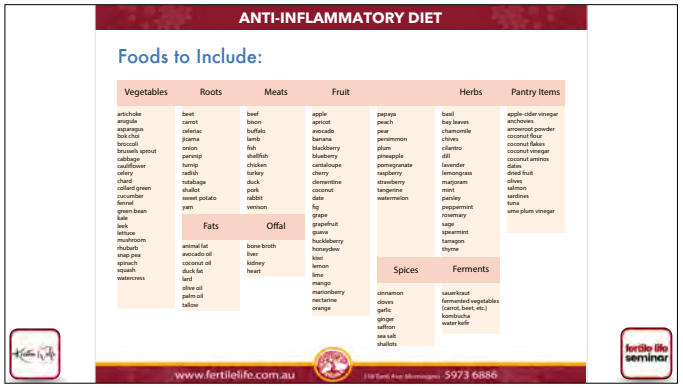
ANTI-INFLAMMATORY DIET
Foods to Include:
Vegetables
artichoke
arugula
asparagus
bok choi
broccoli
brussels sprout
cabbage
cauliflower
celery
chard
collard green
cucumber
fennel
green bean
kale
leek
lettuce
mushroom
rhubarb
snap pea
spinach
squash
watercress
Roots
beet
carrot
celeriac
jicama
onion
parsnip
turnip
radish
rutabaga
shallot
sweet potato
yam
Meats
beef
bison
buffalo
lamb
fish
shellfish
chicken
turkey
duck
pork
rabbit
venison
Fats
animal fat
avocado oil
coconut oil
duck fat
lard
olive oil
palm oil
tallow
Offal
bone broth
liver
kidney
heart
Fruit
apple
apricot
avocado
banana
blackberry
blueberry
cantaloupe
cherry
clementine
coconut
date
fig
grape
grapefruit
guava
huckleberry
honeydew
kiwi
lemon
lime
mango
marionberry
nectarine
orange
papaya
peach
pear
persimmon
plum
pineapple
pomegranate
raspberry
strawberry
tangerine
watermelon
Herbs
basil
bay leaves
chamomile
chives
cilantro
dill
lavender
lemongrass
marjoram
mint
parsley
peppermint
rosemary
sage
spearmint
tarragon
thyme
Spices
cinnamon
cloves
garlic
ginger
saffron
sea salt
shallots
Ferments
sauerkraut
fermented vegetables (carrot, beet, etc.)
kombucha
water kefir
Pantry Items
apple-cider vinegar
anchovies
arrowroot powder
coconut flour
coconut flakes
coconut vinegar
coconut aminos
dates
dried fruit
olives
salmon
sardines
tuna
ume plum vinegar
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ANTINUCLEAR ANTIBODIES (ANA)

* **Antinuclear Antibodies (ANA)**
  These are antibodies that attack the nuclei (centers) of normal cells. These antibodies can destroy cells leading to problems similar to lupus, rheumatoid arthritis or other immunological diseases associated with recurrent pregnancy loss (RPL) or infertility. The ANA antibodies cause inflammation in the body or in the uterus during implantation. Many women with high levels of these antibodies are unable to become pregnant or carry a pregnancy to term as a result.

* *Detection of antinuclear antibodies is helpful in identifying individuals at risk for systemic lupus erythematosus, collagen vascular disease and reproductive autoimmune failure syndrome.*

* **Prednisone** – This is an anti-inflammatory corticosteroid that can suppress harmful immune response to an embryo and allow a pregnancy to proceed.

  Prednisone does not pass through the placenta easily and is also broken down by enzymes in the placenta so that the foetus is exposed to only trace amounts.

If only ANA present and no other autoimmine - you must consider body is still having an autoimmune reaction.

ANTINUCLEAR ANTIBODIES (ANA)

You have tested positive to Antinuclear Antibodies (ANA).

The nucleus is the brain of the cell. It contains the information and regulates the function of the cell. Some people have antibodies to different nuclear components. What causes these antibodies is currently not clear but there may be a genetic susceptibility.

The diseases that we typically associate with antinuclear antibodies is systemic lupus erythematosus. The miscarriage rate in SLE patients is much higher than that in the general population. Although most women who suffer recurrent miscarriage do not have clinical signs or symptoms of systemic lupus erythematosus, many exude the autoimmune phenomena which is similar to that seen in SLE patients. The placenta in these women are inflamed and weakened.

This may play a role in infertility.

The treatment for this problem is Prednisolone/Dexamethasone, corticosteroids which suppress the inflammatory process and stabilise the cell. These corticosteroids do not pass the placenta easily and are broken down by enzymes in the placenta so that the foetus is exposed to only trace amounts.

The corticosteroids should be started prior to conception.

As the body is dynamic, antibody levels may change over time. I will discuss this further at your next appointment.

THYROID ANTIBODIES

* **Antithyroid Antibodies: Thyroglobulin (ATA) and Microsomal (AMA)**
  Thyroid autoantibodies have been shown to be independent markers for pregnancies at risk for loss. Women who have antithyroid antibodies miscarry at approximately twice the rate of women who have no antithyroid antibodies. Individual levels of thyroglobulin and thyroid microsomal antibodies are similarly related to the increased miscarriage rate with no evidence of autoantibody specificity.

  Approximately 30% of women experiencing recurrent pregnancy loss have one or both antithyroid antibodies. Antithyroid antibodies have also been associated with implantation failure after in vitro fertilization and embryo transfer.
* TX – **Clexane**
  IVIG– This is a blood product administered intravenously that binds to the surface of an embryo and acts as a shield against harmful immune response.

THYROID ANTIBODIES TCM TX

* No Gluten or corn - autoimmune paleo diet
* Fix the GUT - Gu herbs
* Treat Shen, Spleen & Kidney
* Supplements include: Thyrobalance, Iodine, Selenium

* Clare Pyers Thyroid webinar
  https://www.clarepyers.com/practitioner-training/treating-thyroid-conditions-with-integrative-tcm

NATURAL KILLER CELL BIOPSY (NK)

* Natural Killer (NK) cells are a lymphocyte subset that express CD56+ on their cell surface and is part of the immune system. 80% of white blood cells in the placenta are NK cells.
* These cells are necessary to assist with implantation of the embryo. However, when activated, these cells also have the ability to kill trophoblast (the outermost layer of cells of the blastocyst that attaches the fertilized egg to the uterine wall) cells of a developing embryo.
* An excess of NK cells in the blood and uterus is correlated with pregnancy loss and reduced IVF success. They do this by interfering with implantation and embryo survival during pregnancy..

  The NK cell activation assay tests the killing function of circulating NK cells as well as the ability of intravenous immunoglobulin (IVIg) and intralipid to suppress that activity. NK activity can be measured as a bioassay that determines the ability of activated NK cells to kill their target (K562 cell line).
* *Increased endometrial NK killing activity has been demonstrated among patients who experienced spontaneous pregnancy loss or IVF failure.*

NK CELLS – WESTERN TX

IVIG – This is a blood product administered intravenously that binds to the surface of an embryo and acts as a shield against harmful immune response.

Intralipid therapy – Intralipids are a mix of fatty acids ("good fats" that are produced when fats break down) that can serve to suppress immune system function when administered intravenously in the proper dosage.

Vitamin D3 –Vitamin D possesses anti-inflammatory benefits and has been shown to lower TH1 cytokine levels, which can blunt or suppress immune response. TH1 cytokine are proteins that aid in immune system function.

DQ ALPHA

Human Lymphocyte Antigen DQ (HLA DQ) is a test that indicates a ***predisposition*** to alloimmune response between the partners. If so, there may be an increased rate of implantation failure and/or miscarriage. Both partners need to be tested.

The connection between the paternal DNA contribution (sperm) and the maternal body (uterus) is altered by a match.

Normally, a signal from a specific part of the sperm's DNA informs the uterus that the embryo, a foreign entity, is acceptable and can implant.

However, if the male DNA contribution of the embryo possesses the same DQa gene as the mother, this signal is disrupted.

Consequently, the uterus fails to perceive the embryo as a distinct entity and instead perceives it as part of its own "self." This triggers the immune system, specifically NK cells, to perceive the embryo as a threat and attempt to eliminate it.

TCM - A gene is ONLY expressed when the body is out of balance.

Adjuvant Therapies - IMMUNE SUPRESSION

* Prednisolone/Clexane (The Bondi protocol)
* Aspirin/prednisolone/antibiotics (The Colorado protocol)
* **Dexamethasone/Aspirin/Clexane/Intralipid (The LOLA) protocol)**
* IVIG 400mg/kg
* LMIT (Lymphocyte Membrane Immunotherapy) LIT
* Plaquenil/Naltrexone/Tacrolimus
* Surrogacy

TUBAL & UTERINE ASSESMENT

TUBAL & UTERINE ASSESEMENT

* Sonohysterography – Saline infusion – VIA ULTRASOUND
* Saline solution injected into uterus and fallopian tubes and ultrasound to observe is the fluid free flows & visualise uterine cavity
* Advantage - not using harmful contrast agents or ionizing radiation

Vector Art

TUBAL & UTERINE ASSESEMENT

Indication:
Tubal patency assessment prior to planned IUI overseas. Jessica had a tubal patency assessment nine years ago that was normal. History of regular cycles; currently Day 7. No previous pelvic surgery or history of PID.

Uterus:
The uterus is anteverted and normal in size measuring 82mm length x 39mm AP x 47mm width (volume 47cc). The myometrium is normal in appearance. The uterus is mobile and non-tender.

Endometrium:
The endometrium is proliferative in nature with a combined thickness of 5.6mm. There is no evidence of endometrial or endocervical pathology.

Ovaries:
Both ovaries are identified. The right measures 24mm x 11mm x 16mm and contains 4 follicles. The left ovary measures 29mm x 17mm x 24mm and contains 6 follicles and a 15mm lead follicle. Both ovaries are mobile, non-tender and accessible for transvaginal oocyte pick up.

There is no evidence of pouch of Douglas adhesions/obliteration.

There is no free fluid.

Tubal Patency:
Tubal patency was assessed with ExEm Foam. Good flow along each fallopian tube and spill around each ovary was identified.

TUBAL & UTERINE ASSESEMENT

* **Ultrasound (sonogram)**
* A sonogram is generally recommended if polycystic ovarian syndrome (PCOS) or uterine fibroids are suspected. Can also show heart shape uterus or any other abnormalities. Best performed at the beginning of a menstrual cycle to at mid-cycle to evaluate the thickness of the endometrial lining.

* **Antral follicle count (AFC)**
* A follicle is a cavity in the ovary containing a maturing egg surrounded by its encasing cells. An antral follicle count is performed via ultrasound at the beginning of the menstrual cycle to count the number of premature follicles on the surface of each ovary. The AFC helps determine ovarian reserve, which is an indicator of egg quantity NOT quality.

ULTRASOUND REPORT

Indication:
Past history of caesarean section. It took Louise two years to conceive that baby. She has had a past history of a laparoscopy years ago for a cystectomy. She has had one caesarean section in the past. She has dysmenorrhoea and dyspareunia and has been trying for over a year to fall pregnant.

Uterus:
The uterus is retroverted and normal in size measuring 77mm length x 44mm AP x 50mm width (volume 89cc). The myometrium contains a caesarean section scar but is fairly normal in appearance.

Endometrium:
The endometrium is menstrual in nature with a combined thickness of 3.5mm. There is no evidence of endometrial or endocervical pathology.

Ovaries:
Both ovaries are identified. The right measures 39mm x 31mm x 41mm and contains 30 follicles and a unilocular fluid filled cyst that measures 57mm x 22mm x 24mm. This likely represents a functional cyst. There are no suspicious features. The left ovary measures 18mm x 20mm x 22mm and contains 19 follicles and a resolving corpus luteum. Both ovaries are mobile, non-tender and accessible.

Bladder:
The bladder appears normal.

Vaginal vault:
The vaginal vault is thin and regular. There is no evidence of vaginal nodules.

Pouch of Douglas:
There is no evidence of pouch of Douglas obliteration and no nodules are seen on the uterosacral ligaments.

There is some blood seen within the pelvis consistent with retrograde menstruation.

Bowel:
There is no evidence of bowel nodules.

fertile life seminar

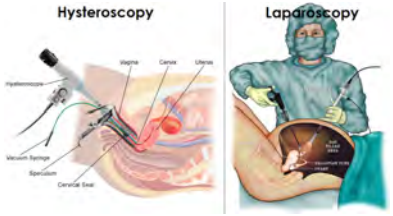
ULTRASOUND REPORT

Conclusion:
Findings are consistent with the menstrual phase of the cycle with some menstrual blood seen in the pelvis due to retrograde menstruation. There is a simple cyst on the right ovary which is likely functional and there is a resolving corpus luteum on the left. As an incidental finding the right ovary has a polycystic ovarian morphology but this may not be of clinical relevance if Louise has regular cycles. There is no evidence of deep infiltrating endometriosis but superficial deposits cannot be excluded, particularly because it took so long to conceive the first baby and Louise has dysmenorrhoea and dyspareunia.

fertile life seminar

TUBAL & UTERINE ASSESEMENT

* **LAPROSCOPY/HYST**
* Day surgery, comprehensive investigation of the reproductive system. Checks for endometriosis, fibroids, adhesions, blocked tubes and any other physical problems.



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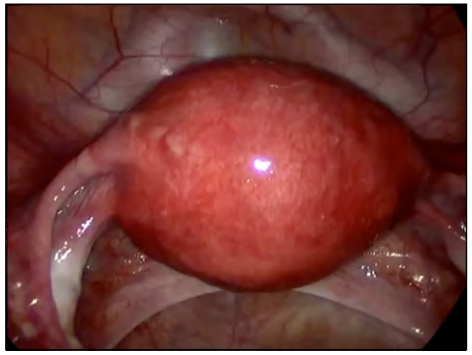
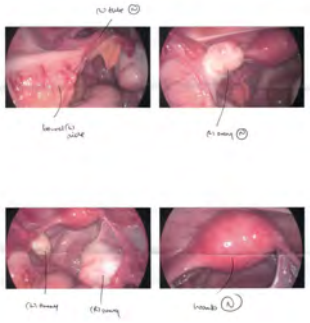


TUBAL & UTERINE ASSESEMENT



CASE STUDIES

CASE STUDY JB

- 32 Years old, beauty therapist, slightly overweight, very highly strung
- High NK cells
- Thinks ovulation around day 20
  IVF 7 embryos - 2 miss - NK protocol - 3 transferred, 2 x frozen blastocysts
- Lining 6mm
- Zoloft - 1 year
- 3 jobs, 3 step children - teenagers
- Iquit sugar diet - can emotionally eat
- hair falling out
- no ivf for 5 months
- MTFHR Hetro Ct gene
- DQ alpha gene - both - had the blood injections - didn't work
  Sperm test as 2013 (19% normal)
- 2x miscarriages - normal chromosomal

CASE STUDY JB

- **SPLEEN QI**
- Fatigued, crave sweets, and sick or allergies
- **Liver Qi**
- PMS and dark, thick purple blood
- **Heart xu**
- heart palps when anxious
- **excess heat**
- dry mouth throat and thirsty for cold drinks
- **Blood Stasis**
- menstrual blood contain clots
- **Liver Qi Stagnation**
- prone to emotional depression
- prone to anger or rage
- Do you suffer from PMS
  breasts sore or sensitive at ovulation
- premenstrual breast distension
- bloated premenstrual
- menstrual blood thick and dark

CASE STUDY JB

- **PERIOD**
- Purple to dark, very very light – could go whole day without changing
- Spotting brown before period
- Regular 29 day
- Teary with period

SUCSESS

I can't thank you enough for our précious miracle "Laila Rose."
She is just perfect and I can't believe I'm holding her in my arms I just feel so blessed.
I'm the luckiest mummy in the world.
Your amazing thank you for our dream come true Ive never been this happy.

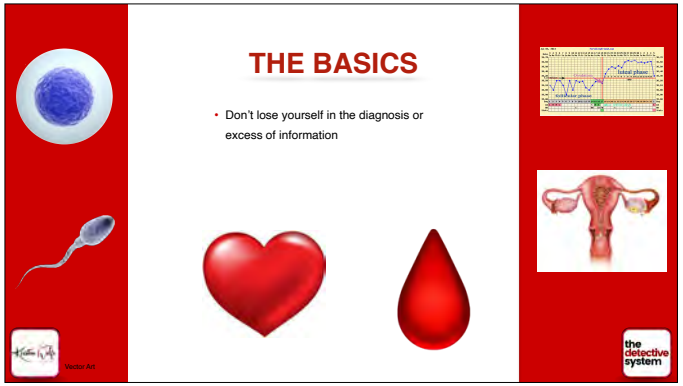
DAY THREE

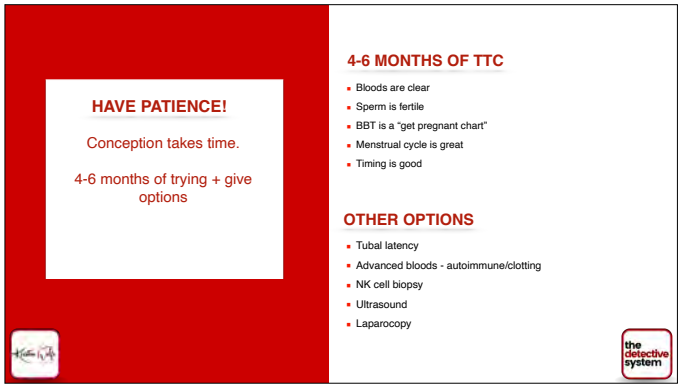
- IVF
- TCM & IVF
- Advancements in IVF
- NK Cells and DQ alpha Gene
- Question hour

DAY 3

- IVF
- TCM & IVF
- Advancements in IVF
- Question hour or 2!

IVF


THE BASICS
• Don't lose yourself in the diagnosis or excess of information
Vector Art
the detective system


HAVE PATIENCE!
Conception takes time.
4-6 months of trying + give options
4-6 MONTHS OF TTC
Bloods are clear
Sperm is fertile
BBT is a "get pregnant chart"
Menstrual cycle is great
Timing is good
OTHER OPTIONS
Tubal latency
Advanced bloods - autoimmune/clotting
NK cell biopsy
Ultrasound
Laparocopy
the detective system

CLOMID

Clomiphene (also known as Clomid ™ or Serophene ™) is a drug which acts like an anti-oestrogen. It is used to help egg production and therefore increases a woman's chance of achieving a pregnancy.

When taking Clomid the pituitary gland senses low levels of oestrogen in the blood and therefore sends stronger signals to the ovaries to stimulate egg production. In women who are not ovulating, clomiphene stimulates the production of eggs

Taken orally between days 3-7 or 5-9 and makes about 1-3 eggs and has a multiple rate of 8% depending on age. 25 – 150mg

Side effect: hot flushes, night sweats, dizziness and mood swings, reduced cervical mucous – **affects YIN**
Light menstrual periods often occur after clomiphene treatment. This is because clomiphene acts as an anti-oestrogen on the lining of the womb.

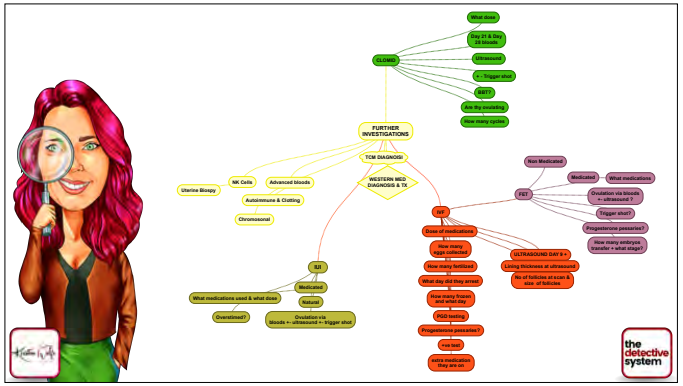
LETROZOLE/FEMARA

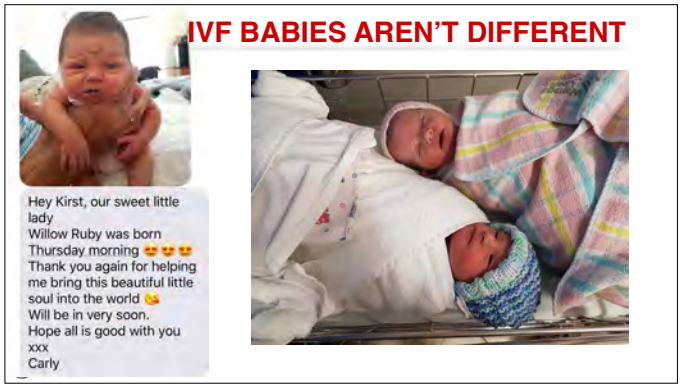
Letrozole is a medication that has been widely used in women with breast cancer. It is sold under the trade name Femara.

Letrozole belongs to a class of medications known as aromatase inhibitors. Aromatase is an enzyme that is responsible for the production of estrogen in the body.

Letrozole *works by inhibiting aromatase thereby suppressing estrogen production.* ***Clomid****, on the other hand, blocks estrogen receptors.*

In both cases, the result is that the pituitary gland produces more of the hormones needed to stimulate the ovaries FSH/LH.


What does
Day 21 & Day 7/8 bloods
Ultrasound
+/- Trigger shot
IUI??
Are they ovulating
How many cycles
CLOMID
FURTHER INVESTIGATIONS
TCM DIAGNOSIS
WESTERN MED DIAGNOSIS & TX
Uterine Biospy
NK Cells
Advanced bloods
Autoimmune & Clotting
Chromosonal
IUI
What medications used & what dose
Medicated
Natural
Ovarstimed?
Ovulation via bloods + ultrasound + trigger shot
IVF
Dose of medications
How many eggs collected
How many fertilised
What day did they arrest
How many Frozen and what day
PGD testing
Progesterone pessaries ?
Fail test
Extra medication they are on
ULTRASOUND DAY 8 +
Endo thickness at ultrasound
No of follicles at scan & size of follicles
FET
Non Medicated
Medicated
What medications
Ovulation via bloods + ultrasound ?
Trigger shot?
Progesterone pessaries?
How many embryos transfer + what stage?
the detective system


IVF BABIES AREN'T DIFFERENT
Hey Kirst, our sweet little lady
Willow Ruby was born Thursday morning 😍😍😍
Thank you again for helping me bring this beautiful little soul into the world 🥰
Will be in very soon.
Hope all is good with you
xxx
Carly

LGBTQIA+ & SINGLES

1940
IUI developed

1967
Clomid licensed

1969
Egg Fertilized in lab

1978
First IVF baby born!!

1983
1st birth from frozen embryo

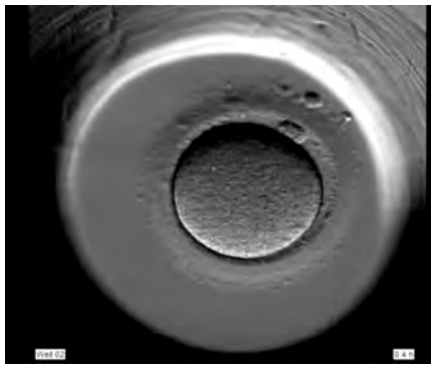
1983
1st birth from egg donation

1980's
Sperm frozen

1984
GIFT developed

1991
ICSI developed

2004
Birth from frozen ovarian tissue

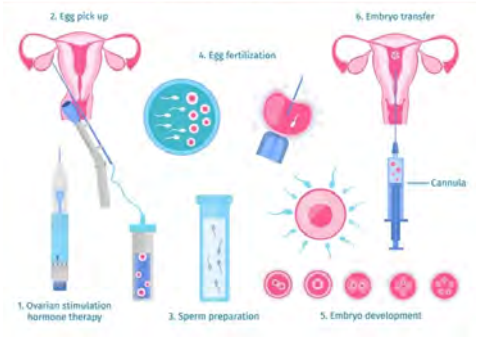


INDICATIONS FOR IUI

- Damage to the cervix from any cause that interferes with cervical mucus production
- The absence of cervical mucus
- Poor sperm-mucus interaction even with good mucus and a normal Semen Analysis
- Decreased sperm parameters - i.e. numbers, motility, morphology or semen volume
- Unexplained infertility
- Total Motile Normal Sperm (TMNS) count of at least 5 million or greater
- More aggressive treatment than timed intercourse
- Using donor sperm
- Difficulty with "sex on demand" and/or getting an erection or ejaculation with intercourse

IUI DETECTIVE

Has sperm test been done?
How many IUI?
Via – Sex? Frozen or fresh sperm
Ultrasound?
Trigger shot?
Dosage of drugs?



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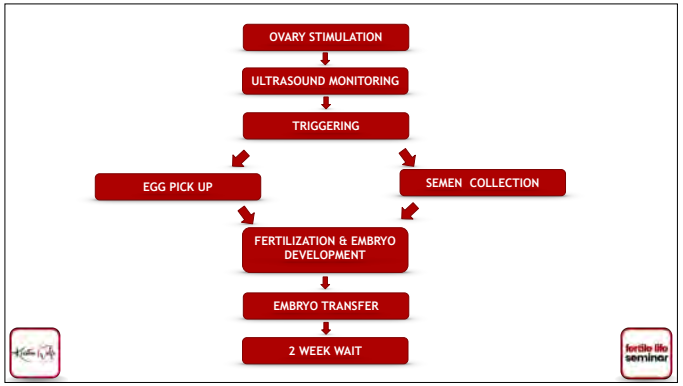
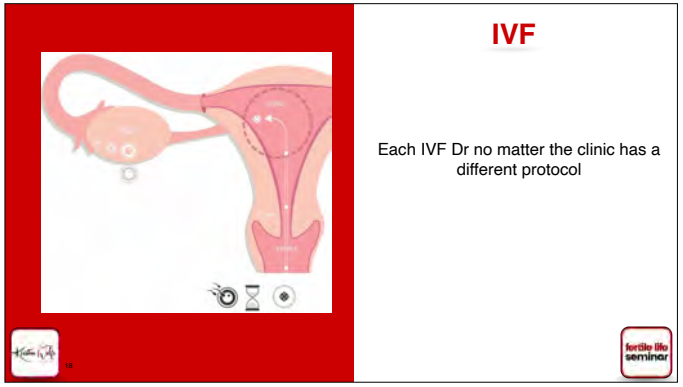
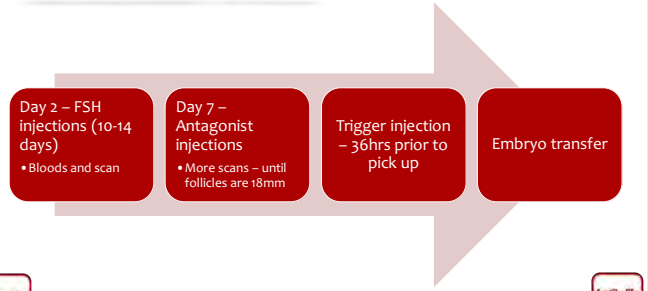

OVARY STIMULATION
ULTRASOUND MONITORING
TRIGGERING
EGG PICK UP
SEMEN COLLECTION
FERTILIZATION & EMBRYO DEVELOPMENT
EMBRYO TRANSFER
2 WEEK WAIT


IVF
Each IVF Dr no matter the clinic has a different protocol

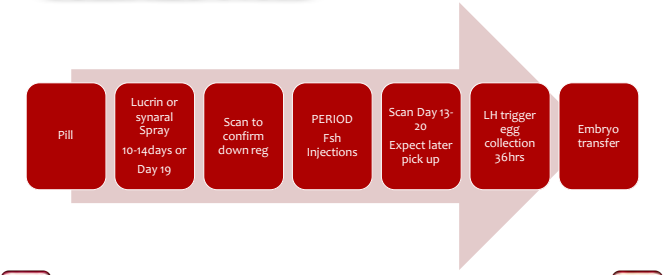
COMMONLY USED IVF PROTOCOLS

* Antagonist protocol (short)
* Long down regulation protocol

ANTAGONIST CYCLE



DOWN REG CYCLE



COMMONLY USED IVF MEDICATIONS

* Estrogen - pill – progynova (oestradiol), patches or injections – increase uterine lining
* Prednisolone or dexamethasone
* Antibiotics
* Filgrastim - is a drug that causes the body to generate neutrophils, a type of white blood cell which plays an important role in the immune system. The drug is also useful in many cases for the purpose of improving egg quality or improving the tissues of the uterine lining
* Intralipid or IVIG – NK cells
* Melatonin – improve egg quality plus helps sleep from steroids
* CoQ10 – 600mg

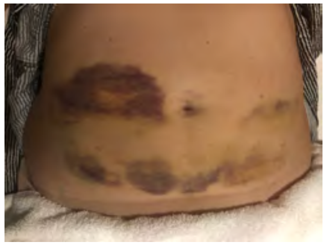
IVF PROTOCOL EXAMPLE

Medications:

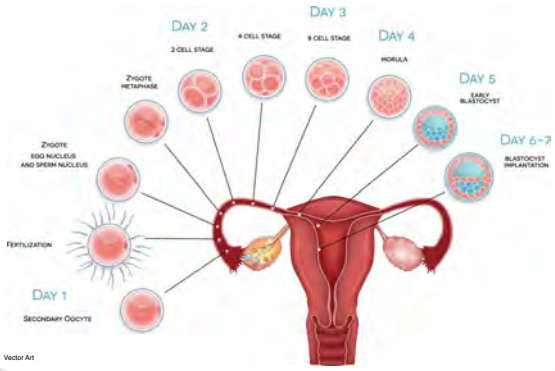
FSH	[illegible]	Trigger	[illegible]
FSH/LH	[illegible]	LPS	[illegible]
Predinisolone	[illegible]	Clexane	[illegible]
Antagonist	[illegible]	Astrix	[illegible]
Antibiotic	[illegible]	Intralipid	[illegible]

Emergency pager no. 9387 1000	DO NOT STOP TAKING ANY MEDICATIONS UNTIL ADVISED Please ensure you check the portal during your cycle as updates to your plan will be reflected here.	Day 1	2	3	4	5
6	7	8	9		PLEASE NOTE, THIS CALENDAR CEASES TO BE CURRENT AT YOUR 1ST SCAN AND BLOODS. PLEASE REFER TO YOUR PORTAL	

CLEXANE INJECTIONS



ULTRASOUND OF FOLLICLES



OVULATION STIMULATION - FSH

Menopur
Gonal F
Puregon
Follistim
Bravelle
Elonva - slow release every 7 days

Common side effects of these drugs include:

- Slight abdominal distension
- Mild abdominal discomfort
- Breast tenderness
- Bruising and irritation at the injection site
- Tiredness, especially on higher doses
- Multiple pregnancy
- The most severe side effect is: Ovarian hyperstimulation syndrome (OHSS).

Elonva - slow release every 7 days
100 or 150 micrograms

WARMS YANG, MOVING

ANTAGONIST - PREVENT OVULATION

Orgalutran
Cetrotide

Used in combination with follicle stimulating hormone (FSH). They work by reducing the body's release of LH (luteinising hormone) which triggers ovulation

Common side effects include:

- Headaches
- Nausea
- Swelling or itching
- Redness at the site of injection Orgalutran may cause abdominal discomfort.

DEPLETES YIN AND BLOOD

TRIGGER SHOT - HcG

Ovidrel - synthetic
Pregnyl - human-derived

Common side effects include:
- Injection site soreness/redness
- Headaches
- Tiredness
- Nausea/vomiting
- Abdominal pain

Syneral is sometimes used

MOVING, YANG

GnRH AGONIST - SYNAREL

Synarel assists in decreasing the amount of oestrogen produced by the ovaries. This provides a more controlled situation for subsequent stimulation of the ovaries to produce eggs.

Synarel belongs to a class of drugs known as synthetic gonadotrophin-releasing hormones and used on down regulation cycles.

It is also described to control Endometriosis.

Common side effects of these drugs include:

- Headaches
- Hot flushes
- Dry vagina
- Increased sweating
- Reduced interest in sex
- nosebleeds
- Acne
- feeling nervous or emotional
- disturbed sleep

GnRH AGONIST - LUCRIN & DECAPEPTYL

GnRH (Gonadotrophin Releasing Hormone) agonists are drugs that can help to stop premature ovulation and increase the chances of pregnancy during IVF and IUI treatments.

Common side effects include:

- Hot flushes
- Mood swings
- Forgetfulness
- Insomnia
- Headaches
- Decreased libido

DEPLETES YIN AND BLOOD

PROGESTERONE - YANG

PROGESTERONE
CRINONE
ENDOMETRIN

Progesterone is prescribed to support the lining of the uterus and provide progesterone as the corpus luteum is not present following IVF Stim cycle.

Common side effects include:

- uterine cramping
- abdominal discomfort
- bloating
- breast tenderness
- headache
- anxiety
- skin irritation.

PROGYNOVA - ESTROGEN

Progynova is a synthetic oestrogen replacement. It is used to build up the lining of the uterus to prepare for embryo transfer during a frozen embryo transfer cycle.

Estrofem is another drug

Common side effects include:

- Breast tenderness
- gastric upset
- nausea
- headaches
- increase in weight

LUVERIS

Used in conjunction with gonadotropins, to assist with follicular development with women with LH or FSH deficiency.

Common side effects include:

- Headache
- Nausea.
- Foetal abnormality if administered during pregnancy

FERTILISATION

EGG RETRIEVAL - The egg retrieval is performed 35-38 hours after 'the trigger' under ultrasound guidance, and takes place while you are sedated.

SPERM SELECTION

ICSI - The Motile sperm as selected by technician

PICSI - Sperm Slow ® is used. This medium contains hyaluronan (HA), a type of sugar and key component to the cells that surrounded the egg, it binds sperm that are more likely to have normal DNA and thus allows selection of these bound sperm for injection. By selecting the sperm that are bound to HA and using them for ICSI, the embryologists are preferentially using the better quality, more mature sperm.

Donor Sperm

Sperm sample is obtained from either:

- Recipient-Recruited Donor (known donor)
- Clinic-Recruited Donor (unknown donor) Donated semen is required for couples who are unable to achieve a pregnancy due to male infertility. This is also an option for same-sex couples and single women

FERTILISATION

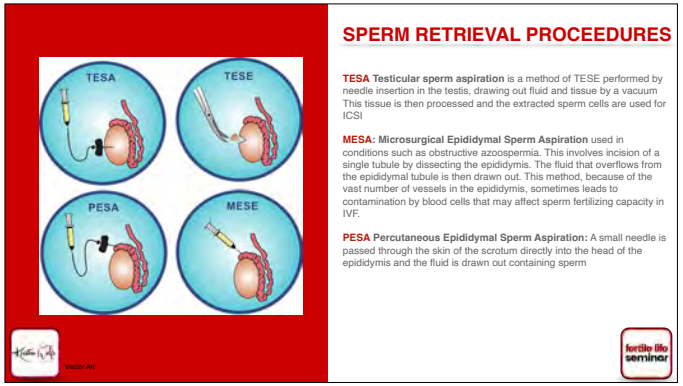
Egg Assessment - The cumulus cells surrounding the egg are removed by a gentle enzyme so maturity of the eggs can be clearly observed. Only genetically mature eggs (MII) can be injected with ICSI.

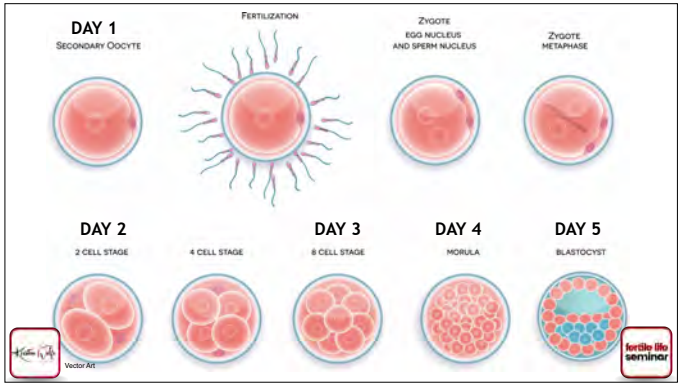
Insemination - Involves the injection of a single sperm directly into a mature egg.

Fertilisation - The dishes are placed in an incubator and checked for fertilisation 16-18 hours after insemination.

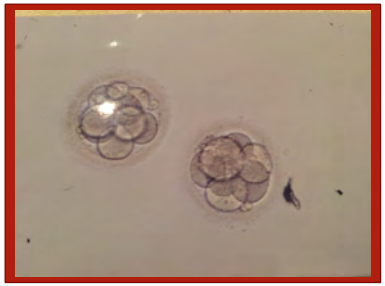
Culture – Grow in lab for 2-5 days.

Embryo Storage - The remaining 'normal' embryos (already frozen) will remain in storage for future use.


SPERM RETRIEVAL PROCEEDURES
TESA
TESE
PESA
MESE
TESA Testicular sperm aspiration is a method of TESE performed by needle insertion in the testis, drawing out fluid and tissue by a vacuum This tissue is then processed and the extracted sperm cells are used for ICSI
MESA: Microsurgical Epididymal Sperm Aspiration used in conditions such as obstructive azoospermia. This involves incision of a single tubule by dissecting the epididymis. The fluid that overflows from the epididymal tubule is then drawn out. This method, because of the vast number of vessels in the epididymis, sometimes leads to contamination by blood cells that may affect sperm fertilizing capacity in IVF.
PESA Percutaneous Epididymal Sperm Aspiration: A small needle is passed through the skin of the scrotum directly into the head of the epididymis and the fluid is drawn out containing sperm
Vector Art
fertile life seminar


DAY 1
SECONDARY OOCYTE
FERTILIZATION
ZYGOTE
EGG NUCLEUS AND SPERM NUCLEUS
ZYGOTE
METAPHASE
DAY 2
2 CELL STAGE
4 CELL STAGE
DAY 3
8 CELL STAGE
DAY 4
MORULA
DAY 5
BLASTOCYST
Vector Art
fertile life seminar

DAY 3 EMBRYOS

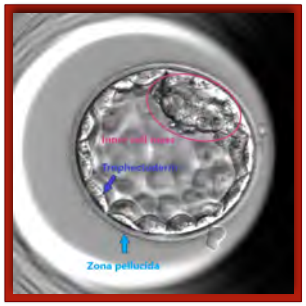


BLASTOCYST

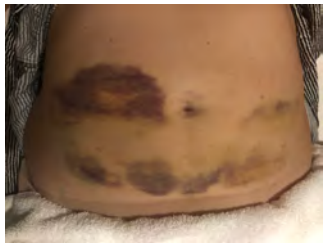
At the blastocyst stage of development (5 days after fertilisation) that an embryo would normally move out of the fallopian tube and into the Uterus.

The disadvantage is that fewer embryos will “survive” or grow to this phase (probably about 30-50% of the embryos). There is a possibility (up to 10%) that none will reach the blastocyst transfer stage and therefore no embryos will be available for transfer. The availability of “extra” embryos for freezing is also significantly reduced.

BLASTOCYST



CLEXANE INJECTIONS



TCM & IVF

We can do do much

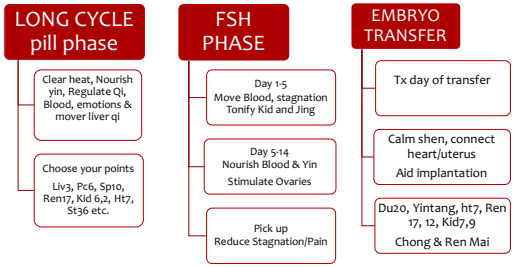
TCM & IVF

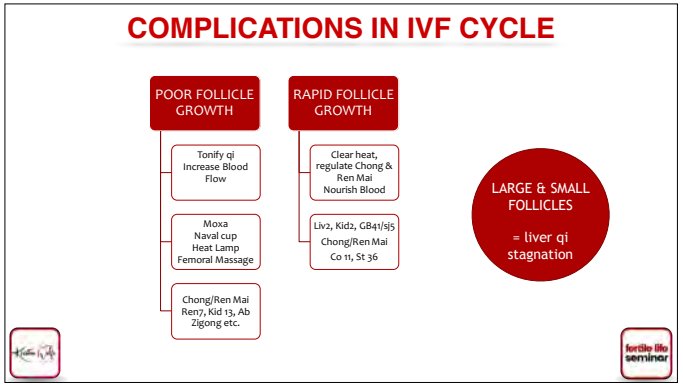
- Decrease stress and anxiety
- Improve blood supply to ovaries & uterus
- Increase uterine lining
- Optimise Follicular development
- Alleviate side effects of medications
- Reduce uterine cramping from egg pick up and transfer
- Reduces ectopic pregnancy
- Embryo implantation by improving lining receptivity - triple-line pattern endometrial lining. It has been shown in studies that triple-line pattern is associated with good IVF outcome.
- Improving HOXA10 expression. Higher HOXA10 is associated with greater endometrial receptivity and good pregnancy outcomes. HOXA10 expression is lower in the uterus of women with hydro-salpinx, PCOS, and endometriosis.

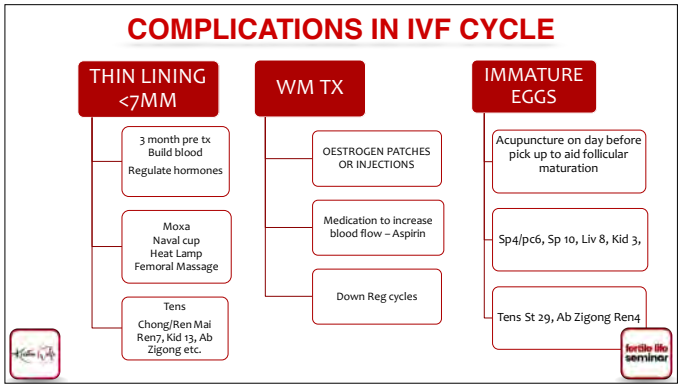
IVF SLANG

- **DOWN REG** = the phase of taking sineral spray that put the body into menopause – no hormones before stim
- **STIM OR STIM UP**= the phase of injecting FSH into belly, can be called lots of different names.
- **ANTAGONIST** - this is a short IVF cycle with no pill or syneral. They just start injections on day 2 with an extra injection alongside to prevent ovulation.
- **FET CYCLE** = natural cycle when they are blood test to see when ovulation is then a frozen embryo is defrosted and put back in 6 days after ovulation – no progesterone pessaries needed
- **PICKUP** – this is when the eggs are retrieved. – they don't need before or after acu for this.
- **TRANSFER** – the embryo is put back in. – they do need before and after acu for this
- Uterine lining needs to be 6.5mm at a minimum before transfer.
- **BLASTO** When you push embryos out to day 5 (called blastocyst) you lose half of them. Eg 10 collected and fertilized but only 5 make it to day 5

TCM TREAMENT IVF




COMPLICATIONS IN IVF CYCLE
POOR FOLLICLE GROWTH
Tonify qi
Increase Blood Flow
Moxa
Naval cup
Heat Lamp
Femoral Massage
Chong/Ren Mai
Ren7, Kid 13, Ab
Zigong etc.
RAPID FOLLICLE GROWTH
Clear heat, regulate Chong & Ren Mai
Nourish Blood
Liv2, Kid2, GB41/sj5
Chong/Ren Mai
Co 11, St 36
LARGE & SMALL FOLLICLES
= liver qi stagnation
fertile life seminar


COMPLICATIONS IN IVF CYCLE
THIN LINING <7MM
3 month pre tx
Build blood
Regulate hormones
Moxa
Naval cup
Heat Lamp
Femoral Massage
Tens
Chong/Ren Mai
Ren7, Kid 13, Ab
Zigong etc.
WM TX
OESTROGEN PATCHES OR INJECTIONS
Medication to increase blood flow – Aspirin
Down Reg cycles
IMMATURE EGGS
Acupuncture on day before pick up to aid follicular maturation
Sp4/pc6, Sp 10, Liv 8, Kid 3,
Tens St 29, Ab Zigong Ren4
fertile life seminar

IMPLANTATION DAY 6-9

* APPOSITION – a loose unstable connection with the uterine lining - **Yang and qi movement required to hatch (the force) and lining requires Yin (the acceptance) if there is any fluid (damp) will not connect**
* ATTACHMENT – (short) as embryo attaches becomes more stable and initates the development of the maternal component of the placenta - **lots of qi movement and yin and yang interaction**
* INVASION – Trophoblasts invade the uterine lining & become covered by day 10 and blood supply from mother is complete, her immune system is now engaged – **union of yin and yang Embryo excretes at least 10 immune suppressant agents, one being HSG, to prevent rejection from the mother. This is where autoimmune comes into play**
*

WHAT HAPPENS AFTER A DAY 5 TRANSFER

* **Day 1** – After the embryos are transferred, the cells keep dividing. The blastocyst begins to emerge from its shell and this process is called hatching.
* **Day 2** – The second day is crucial because this is the time when the embryo begins to attach itself to the uterine lining. The blastocyst continues to grow.
* **Day 3** – On this day, the blastocyst invades into the uterine lining and implantation begins. The woman may have light bleeding and spotting on this day
* **Day 4** – On the fourth day, the blastocyst continues dig deeper into the uterus Light bleeding and spotting may continue on this day as the embryo invades the endometrial blood vessels to nourish itself through the maternal blood supply. However, the absence of any bleeding, cramping and spotting does not mean that implantation has not occurred
* **Day 5** – On the fifth day, implantation is considered complete. The embryo is developing vigorously.

WHAT HAPPENS AFTER A DAY 5 TRANSFER

- **Day 6** – The growing embryo triggers the release of human chorionic gonadotropin (hCG) into the blood stream. This is a hormone that is produced by the syncytiotrophoblast, the specialised cells which will form the placenta later on
- **Day 7** – The fetal development is in full swing and the embryo continues to develop quickly. As the placenta begins to take shape, it continues to release more hCG into the blood stream
- **Day 8** – More hCG is released into the blood, as fetal development continues and the placenta begins to function.
- **Day 9** – By this time, the levels of the hormone hCG, are high enough in the blood stream to be detected.. The blood test for beta HCG is usually done about 10 -12 days after blastocyst transfer.

CASE STUDIES

CASE STUDY SL

- **Main Problem(s) you would like us to help you with:** fertility – egg stimulation and enhancement / development. Wanting to complete another cycle of IVF with success! I responded well to the pre-IVF and IVF treatments however; due to family genetics my eggs are aged and lazy. I produced 6 mature eggs in a recent IVF cycle and despite using the ICSI process, none of the eggs fertilized. I am told this is very rare and only happens with 1% IVF patients.
- **How long ago did this problem begin?** Have been trying for a baby over the past 3 years. I fell pregnant in November 2013 using clomid and miscarried at 13 weeks in February 2014.
- **Have you been given a diagnosis for this problem. If so, what & by whom?** YES – Low AMH Levels – early menopause in family history. Fertility specialist – Dr Lynn Burmeister. Mum went into menopause at 35
- **What kinds of treatments have you tried?** Clomid, FSH Gonal F, IVF, Various vitamins, Acupuncture, herbs

CASE STUDY SL

- **Kidney Yin Deficiency**
- Do you have lower back weakness, soreness or pain or knee problems? Y
- Do you experience fear in your life? Y
- **Kidney Yang Deficiency**
- Do you have lower back pain premenstrually? Y
- Is your lower back sore or weak? Y
- Is your libido low? Sometimes
- **Spleen Qi Deficiency**
- Are you often fatigued? Y
- Is your energy lower after a meal? Y
- Do you feel bloated after eating? Y
- Do you have abdominal pain or digestive problems? Y
- Do you bruise easily? Y
- Are you prone to worry? Y
- Are you more tired around ovulation or menstruation? Y
- Do you ever spot a few days or more before your period comes? Y

CASE STUDY SL

- **Blood Deficiency**
- Are your fingernails or toenails brittle? y
- Do you get shortness of breath? Y
- **Blood Stasis**
- Is your menstrual flow ever brown in colour? Towards the end
- Do you feel midcycle pain around your ovaries? Y
- Do you have varicose veins or spider veins? Y
- Does your menstrual blood contain clots? Y
- Is your lower abdomen tender to palpation (touch)? Sometimes
- Do you experience piercing or stabbing menstrual cramps? Y
- **Liver Qi Stagnation**
- Are you prone to emotional depression? Y
- Do you suffer from PMS Y
  Are your breasts sore or sensitive at ovulation? Y
- Do you experience premenstrual breast distension or pain? Y
- Do you become bloated premenstrually? Y
- Do you have difficulty falling asleep at night? Sometimes
- Are your menses painful? Sometimes

CASE STUDY SL

- **Heart Deficiency**
- Do you wake up early in the morning and have trouble getting back to sleep? Sometimes
- Do you have nightmares? Sometimes
- Do you seem low in spirit or lacking in vitality? Y
- Are you prone to agitation or extreme restlessness? Y

- Are you overweight? Slightly
- **PERIOD**
- Are your periods regular? Yes – between 23 – 31 days, Days of bleeding? 4-7
- Age at first period? 12 ____
- Amount of bleeding: Light __Yes___ Medium __Yes___ Heavy ___Yes__ Clots Sometimes____
- Pain with menstruation? yes
  Degree of pain: Moderate __YES___

CASE STUDY SL

Procedure	Date	Indication	Outcome
Wisdom teeth	1998		All good
Laparoscopy & Hysteroscopy	2013	Couldn't conceive	Mild endometriosis and tubes were slightly blocked. Everything flushed away and all returned to normal
D&C	2014	Miscarriage	
Egg Collection	2014	IVF	

IVF - MONASH
Cycle 1 No of eggs collected - 6. No. fertilized - 0 No transferred - 0 No. frozen 0

CASE STUDY SL

CLOMID or LETROZOLE

* What dose are they on? And what days?
* Have they confirmed that they don't actually ovulate?
* Bloods to check ovulation?
* Can to check growing follicle?
* Trigger shot?
* Do they need medication to get period?
* Do they actually need it or is it a sperm issue

IVF

* Were all investigations were done before IVF – e.g. sperm, bloods, lap? - **STOP IF NOT DONE AND INVESTIGATE**
* What drugs were they described, what dose and timing - this tells you their TCM diagnosis
* Any side effects from medications
* Did they have acupuncture alongside?
* Long or short cycle
* Donor egg, sperm or embryo
* Dr and IVF centre

IVF STIM

* Number of follicles at the scan? Growth rate equal
* Thickness of uterine lining?
* Any cysts or possibility of hyper stim?
* IF DOWNREGULATION – what is oestrogen level?
  If high needs to stay down reg until it's at baseline.

IVF EGG RETRIEVAL

* How many eggs?
* What size where they <18mm
* How many were suitable for fertilization
* How many fertilized? – **if low number fertilized this indicated sperm issue**
* How many eggs fertilized abnormally
* Did they use ICIS, PICIS? – **this indicates sperm issue**
* How many transferred and how many frozen
* What day were the embryos taken to – day 2, 3 or 5?
* Assisted hatching?
* **Was PGD done and what were the results?**
* Fresh transfer or frozen?

IVF EMBRYO TRANSFER

* Was there bleeding after the transfer?
* Were there any issues with transfer – e.g. pain?
* Was progesterone prescribe, how much and frequency?
* If 2 cycles with PGD embryo failed further investigation is required
* Any other medications

IVF 2 WEEK WAIT

* Was acupuncture administered? By who and what points?
* Was there any bleeding days after transfer, cramping
* **Progesterone pessaries cause pregnancy symptoms and increase anxiety**
* Did bleeding start before blood test or after?
* Did they have to stop progesterone to induce a bleed?

DONOR SPERM

* How many live births from donation IVF?
* Help them choose best sample
* If friend or know donor treat them & sperm test
* Can do via IVF or on own
* Natural = BBT charting for correcting timing with ovulatio

SAME SEX COUPLE IVF

* Who is going through IVF simulation?
* Who is carrying the embryo?
* Treat accordingly

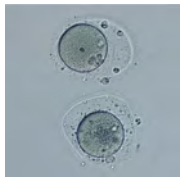
IVF - ITS YOR EGG QUALITY!!????

Look for proof!!!

EGG QUALITY EXAMPLES

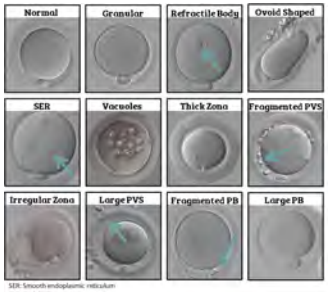
Good quality

Fair quality



Poor quality

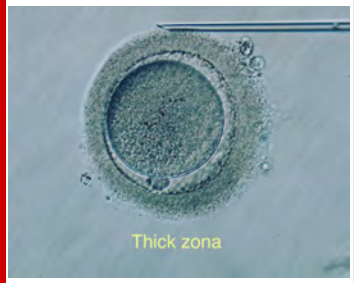
EGG QUALITY EXAMPLES



SER: Smooth endoplasmic reticulum
PVS: Perivitelline space
PB: Polar body

THICK ZONA

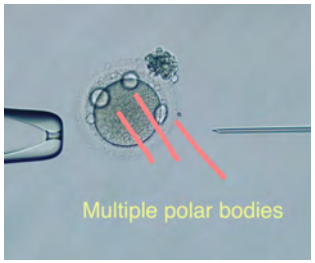
Common in older patients, with higher FSH (10-12)



MULTIPLE POLAR BODIES

Can correlate with genetic issues & abnormalities due to egg not performing maturation correctly

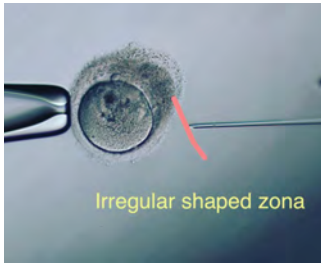
We expect to see 2 polar bodies after fertilisation not before



IRREGULAR SHAPED ZONA

Not seen often

Unknown cause and see in older eggs



FRAGMENTS IN PV SPACE

Fragments inside the PeriVitelline space - the PV space is the gap between the shell (zona) and the contents (cytoplasm). Here we can see frags inside, an indication of the polar body breaking down. These eggs are sticky to inject and the large PV space can indicate over-stimulation. As the egg is over maturing we see the cytoplasm shrinking, and its a first sign that the stim might have been too much

EGG QUALITY SUPPS

- NAD - Tru Niagen as directed
- Pterostibene + resveratrol antioxidants
- L Arginine – 500mg
- Melatonin – 4mg
- Myoinositol – 2000mg
- Vitamin E – 1000iu
- Lipoec Alpha lipoc acid - 400mg
- Ubiquinol 600mg
- Vit D 2000iu
- Tresos natal – (folinic acid/folate prenatal)
- NAC
- Fish Oil – 4 caps
- Vitamin C and Zinc

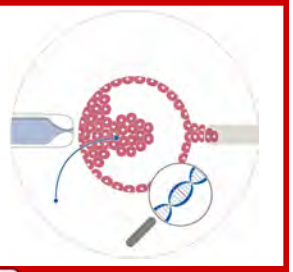
IVF
ADD ONS

PGS – Preimplantation Genetic Screening

PGD is generally used to detect anomalies in the number or structure of the chromosomes of embryos.

Aneuploidy - Normal human cells (embryonic cells) contain 46 chromosomes in 23 pairs. We receive 23 chromosomes from each parent. If an error occurs, and the egg or sperm has an extra or missing chromosome, the embryo created will also have an extra or a missing chromosome resulting in a condition called aneuploidy.
The most common aneuploidy is Down syndrome or Trisomy 21 (three 21 chromosomes). Other common aneuploidies are Klinefelter syndrome, Trisomy 13 and Trisomy 18.

Vector Art



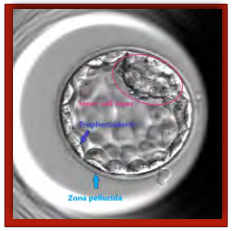
Genetic Screening - The embryo created through IVF is tested on day 5 of development. The genetic makeup of the embryo is analysed to detect possible genetic defects.

Embryo Biopsy

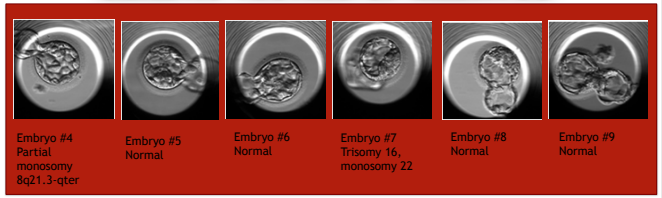
To test an embryo, some embryonic cell are removed via a microscopic opening made in the outer shell of the embryo.

The embryo is then frozen and kept in storage while the cells are analysed.

TROPHECTODERM BIOPSY



GENETIC TESTING OF EMBRYOS



Embryo #4
Partial monosomy 8q21.3-qter

Embryo #5
Normal

Embryo #6
Normal

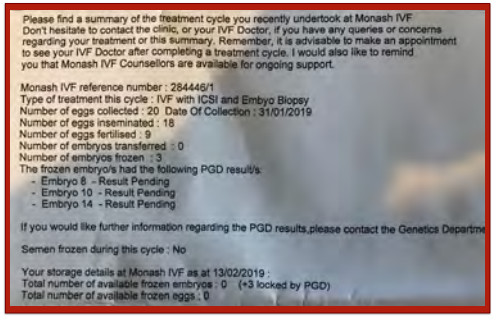
Embryo #7
Trisomy 16, monosomy 22

Embryo #8
Normal

Embryo #9
Normal

Aneuploidy is the term used to describe any embryo with either too many or too few chromosomes. Most people are not aware that aneuploidy is the cause of greater than 60% of miscarriages, as well as the most likely reason that patients do not get pregnant from an in-vitro fertilization (IVF) cycle.

GENETIC TESTING OF EMBRYOS



Please find a summary of the treatment cycle you recently undertook at Monash IVF
Don't hesitate to contact the clinic, or your IVF Doctor, if you have any queries or concerns regarding your treatment or this summary. Remember, it is advisable to make an appointment to see your IVF Doctor after completing a treatment cycle. I would also like to remind you that Monash IVF Counsellors are available for ongoing support.

Monash IVF reference number : 284446/1
Type of treatment this cycle : IVF with ICSI and Embyo Biopsy
Number of eggs collected : 20 Date Of Collection : 31/01/2019
Number of eggs inseminated : 18
Number of eggs fertilised : 9
Number of embryos transferred : 0
Number of embryos frozen : 3
The frozen embryo/s had the following PGD result/s:
- Embryo 8 - Result Pending
- Embryo 10 - Result Pending
- Embryo 14 - Result Pending

If you would like further information regarding the PGD results,please contact the Genetics Departme

Semen frozen during this cycle : No

Your storage details at Monash IVF as at 13/02/2019 :
Total number of available frozen embryos : 0 (+3 locked by PGD)
Total number of available frozen eggs : 0

ERA TRIO TEST IGENOMIX

* ERA Endometrial Receptivity Array
* EMMA Endometrial Microbiome Metagenomic Analysis
* ALICE Analysis of Infectious Chronic Endometritis

* All three performed in a medicated (HRT) cycle with biopsy on morning of day 6 of progesterone therapy
* EMMA & ALICE can also be done in a natural cycle between Day15-25 of cycle

Adjuvant Therapies - IMMUNE SUPRESSION

* Prednisolone/Clexane (The Bondi protocol)
* Aspirin/prednisolone/antibiotics (The Colorado protocol)
* **Dexamethasone/Aspirin/Clexane/Intralipid (The LOLA) protocol)**
* IVIG 400mg/kg
* LMIT (Lymphocyte Membrane Immunotherapy) LIT
* Plaquenil/Naltrexone/Tacrolimus
* Surrogacy

Adjuvant Therapies - IMPROVE LINING

* Viagra
* Trentil
* Nitrodur
* IMI oestradiol/patches
* Endometrial scratch
* IUI Filgrastim
* Filgrastim sc
* SCUPE:- Stem Cell Uterine Proliferation of Endometrium
* PRP Platelet Rich Plasma

STEM CELLS

* Improving egg quality and lining thickness
* Stem cells: Solutions are starting to surface

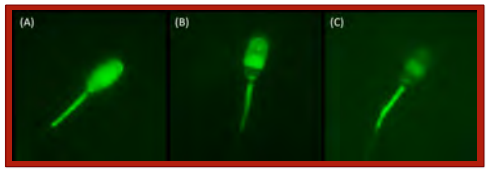
SCUPE Stem Cell Uterine Proliferation of Endometrium
SCORE Stem Cell Oocyte Rejuvenation

CAP SCORE - SPERM FUNCTION TEST

* Ejaculated sperm are not ready to fertilize an egg. In response to the dilution of semen in the vagina, the levels of a protein called FPP (fertilization promoting peptide) start dropping. This results in the sperm starting to undergo several changes, which are collectively known as capacitation.
* During capacitation, the head of the sperm sheds some proteins and other molecules from its surface, this allows the mineral calcium enters the sperm more rapidly which results in increased energy production and then the sperm tail starts to beat more vigorously (hyperactivation).
* Finally, there is a small sac of enzymes at the top of the sperm head called the acrosome. During capacitation, the acrosome starts to become more unstable. These enzymes will be needed to dissolve the hard shell that surrounds the egg.
* Unless a sperm undergoes capacitation, it will not be able to fertilize an egg.

CAP SCORE - SPERM FUNCTION TEST

As you might have guessed, some men may make sperm that are unable to undergo capacitation or have only a small percentage of the sperm that do so. The Cap-Score™ is a test that was developed to determine the percentage of sperm that undergoes capacitation in a certain amount of time.



By looking at men with normal fertility, scientists were able to determine that the average fertile man has about 35% of his sperm that will undergo capacitation (Cap-Score™ of 35%). Men with a low Cap-Score™ – 27% or less – are likely to have fertility problems, even if there are lots of fast moving sperm. Data now shows that the the higher the percentage of sperm that undergo capacitation, the higher the probability for pregnancy.

Vector Art

DETECTIVE SYSTEM

ARE THEY TIMING RIGHT?

* How does she know that she is ovulating? OPK? Period tracker? BBT? Bloods?
* How often are they having sex/insemination
* Are they timing correctly through the fertile window?
* Is the male saving the sperm thereby killing it

LOOK AT THE MALE FIRST

* Have you sighted the sperm test?
* How recent is it?
* DNA Fragmentation
* Testosterone
* Sperm antibodies
* H2O
* ICSI

REFER TO ANDROLOGIST

* Sperm is below reference range or very close to them
* There is impaired sexual function (erectile dysfunction, low libido) or does not wake with erection
* Physical Exam
* Ultrasound
* Sperm biopsy

SPERM TEST

* Does sperm test indicate “Fertile Sperm” and is it within 6 months?
* Was it analysed within 30-1hr?
* Days of abstinence? 3-4 days
* Semen volume: >2.6 ml
* Sperm concentration: >64 million per ml
* Total sperm number: >100 million per ejaculate
* Total motility: >62%
* Progressive motility: >50%
* Normal morphology: 14-20%

MALE FERTILITY DETECTIVE SYSTEM

* Is he “cleaning the pipes” regularly?
* Quality of erection / duration / hardness - Morning erection – this is an indication of whether or not mental issues are causing sexual problems with partner
* Quality of semen – colour, thickness amount
* Smoking/drinking?
* Over exercising?
* Shift work?
* Bike riding, electric blankets, laptops, phones?

MALE FERTILITY DETECTIVE SYSTEM

* Is he drinking enough H2O?
* Prostate issues (even younger patients)
* Medications
* Pain/itching in genital region / lumps in testicles
* Genetic history
* Taking the wrong supplements? (bodybuilding / weight lifting)
* Shift work?
* Hours of sleep/wake

DOES SHE HAVE ENOUGH BLOOD?

* Is nourish ovaries & uterine blood to create life?
* What is her menstruation like? is it heavy, light, clots etc.
* Any history of anaemia, amenorrhea, overexercise, anorexia?
* History of blood loss?
* Has she conceived before and now has a new partner?

OTHER QUESTIONS TO CONSIDER

* Does she take drugs, alcohol, medication or smoke
* What supplements are being taken?
* Has woman easily conceived with different partner? – indicates sperm?
* Are they using lubricant?
* What does your gut/heart say?

HAVE ALL THE BLOODS BEEN CHECKED??

* Have you sighted ALL of them?
* Have hormones been checked on the correct day of cycle?
* Order the bloods that have not been done
* Know your reference ranges
* Are they on the right medication in accordance to anything that comes up on the blood tests?

ULTRASOUND

* Fibroids - where, how extensive, is surgery recommended?
* Endo - where, how extensive, is surgery recommeded?
* Heart shape uterus - what extent?
* PCO - how many? Have bloods been done?
* Are the tubes clear, where tubes clear? Blocked how?
* Have you sighted the scan results?

LAPROSCOPY I HYSTOCOPY

* Fibroids - where, how extensive, was it removed?
* Endo - where, how extensive, was it removed?
* PCO - how many?
* Are the tubes clear, where tubes clear? Blocked how? Hydrosalpinx?
* Have you sighted the written report?

FURTHER INVESTIGATIONS - WHEN?

* Blood clotting bloods
* Auto immune bloods
* D&C can = Ashermans

CONTRACEPTION

* Pill = PCO, amenorrhea
* How long where they on it?
* Did they skip periods?
* How long for menstrual cycle to come back & then regulate?

* IUD = Did they bleed on it? Clots? How long bleeding?
* Did they remove it themselves

BBT CHARTING

* Is the thermometer working?
* Are they taking it BEFORE they get up?
* Have they had a restless night or fight with partner?
* Alcohol
* What thermometer are they using?
* Shift work
* Electric blankets
* Rule of thumb

MISCARRIAGE

* What stage did the embryo stop developing?
* Was it discovered via ultrasound or spontaneous bleeding?
* Was a D&C performed and investigations done?
* Are there any circumstances that could explain miscarriage e.g. trauma?

ULTRASOUND

* Fibroids
* Endo
* Heart shape uterus
* PCO,
* Are the tubes clear, where tubes clear? Blocked how?
* Have you sighted the scan results?

CLOMID or LETROZOLE

* What dose are they on? And what days?
* Have they confirmed that they don't actually ovulate?
* Bloods to check ovulation?
* Can to check growing follicle?
* Trigger shot?
* Do they need medication to get period?
* Do they actually need it or is it a sperm issue

IVF

* Were all investigations were done before IVF – e.g. sperm, bloods, lap? - **STOP IF NOT DONE AND INVESTIGATE**
* What drugs were they described, what dose and timing - this tells you their TCM diagnosis
* Any side effects from medications
* Did they have acupuncture alongside?
* Long or short cycle
* Donor egg, sperm or embryo
* Dr and IVF centre

IVF STIM

* Number of follicles at the scan? Growth rate equal
* Thickness of uterine lining?
* Any cysts or possibility of hyper stim?
* IF DOWNREGULATION – what is oestrogen level? If high needs to stay down reg until it's at baseline.

IVF EGG RETRIEVAL

* How many eggs?
* What size where they <18mm
* How many were suitable for fertilization
* How many fertilized? – **if low number fertilized this indicated sperm issue**
* How many eggs fertilized abnormally
* Did they use ICIS, PICIS? – **this indicates sperm issue**
* How many transferred and how many frozen
* What day were the embryos taken to – day 2, 3 or 5?
* Assisted hatching?
* **Was PGD done and what were the results?**
* Fresh transfer or frozen?

IVF EMBRYO TRANSFER

* Was there bleeding after the transfer?
* Were there any issues with transfer – e.g. pain?
* Was progesterone prescribe, how much and frequency?
* If 2 cycles with PGD embryo failed further investigation is required
* Any other medications

IVF 2 WEEK WAIT

* Was acupuncture administered? By who and what points?
* Was there any bleeding days after transfer, cramping
* **Progesterone pessaries cause pregnancy symptoms and increase anxiety**
* Did bleeding start before blood test or after?
* Did they have to stop progesterone to induce a bleed?

DONOR SPERM

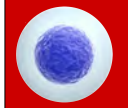
* How many live births from donation IVF?
* Help them choose best sample
* If friend or know donor treat them & sperm test
* Can do via IVF or on own
* Natural = BBT charting for correcting timing with ovulatio

SAME SEX COUPLE IVF

* Who is going through IVF simulation?
* Who is carrying the embryo?
* Treat accordingly

THE BASICS

- Don't lose yourself in the diagnosis or excess information



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- Important fertility tests that you must have
- Recurrent Miscarriage
- Fertility supplements
- Knowing IVF inside out and what questions to ask
- Fertility testing, tubes, ultrasound, and surgery
- Gynaecological conditions, endometriosis, PCO(s), Fibroids
- How Chinese Medicine works alongside IVF
- NK Cells and DQ alpha Gene & other add ons

HAVE PATIENCE!

Conception takes time.

4-6 months of trying + give options

4-6 MONTHS OF TTC

- Bloods are clear
- Sperm is fertile
- BBT is a "get pregnant chart"
- Menstrual cycle is great
- Timing is good

OTHER OPTIONS

- Tubal latency
- Advanced bloods - autoimmune/clotting
- NK cell biopsy
- Ultrasound
- Laparocopy

the detective system

GET EVEN MORE VALUE ON MY PLATFORM

* Live Monthly Q&A with myself
* Bonus Videos + Recording of seminar
* Community support through a forum
* And more to be announced

https://fertilelifeseminars.thrivecart.com/fertile-life-digital-access/

THANK YOU

https://academy.kirstenwolfe.com.au/

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