
fertile life
mastery

Kirsten Wolfe

FERTILE LIFE METHOD

Welcome
Take a seat, grab a cuppa and relax

9.30am START

11am 15 min break

1.00 lunch for 1 hour

3.30pm 20 min break

5-5.30pm FINISH

GENDER LANGUAGE

KIRSTEN WOLFE

- Proud mum of two teenage boys
- Chinese Medicine practitioner for 25 years
- Successfully operated Mornington Chinese Medicine for 20 years.
- 7 successful practitioners
- 1 million+ revenue for the past 7 years
- Author & teacher of Fertile Life Method
- Creator of The HOPE program for people TTC
- Speaker & Mentor
- Business Coach
- Co-Director of IICMC & Alchemy Herbs

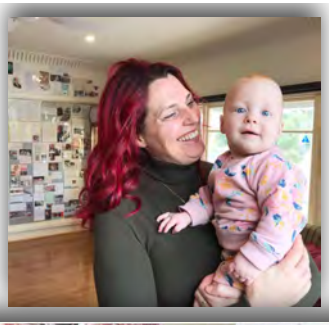
GRATITUDE

- To all my patients
- MCM practitioners who have taught me so much
- To all the expectational practitioners I have learnt from over the years
- To my incredibly supportive partner Paul McLeod & my kids

IN MY TOOL BELT

- 18 years of NLP, Communication & Hypnosis training
- Loads of learning from all my mistakes & life long learner
- Humbleness, Bravery and drive











Birth Attendant - Doula

GRATITUDE

- Randine Lewis
- My Patients & Practitioners
- My own clinical practice – 25 years
- Paul Mischel (Personal growth)
- Jane Lyttleton
- Dr Nick Lolatgis & Dr David Wilkinson
- Olivia Pojer
- Lee Rubin-Hullender
- Naava Carmen
- Henry McCann

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!

COMPLEX CASES
Are my wheel house

TEACHING FROM CLINICAL EXPERIENCE

- ✗ Books or classics
- ✗ Research
- ✓ 25 years of treating fertility patients, what works & doesn't work clinically

Hope

Kirsten Wolfe

fertile life mastery

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 Knowing fertility inside and out!

THE FERTILE LIFE MASTERY

* Recurrent Miscarriage - TCM & Western Medicine
* Male fertility role in recurrent miscarriages & Fertility
* Blood clotting & Autoimmune
* IVF - NK, DQ ALPHA, EMMA & ALICE TEST
* Microbiome basics
* Tricky BBTs
* Holding space
* All through the Fertile Life Detective System

A gentle note

We recognize that the topic of recurrent miscarriage may deeply resonate with many in this room. Whether through personal experience or through supporting patients, this subject can carry immense emotional weight.

Please know that this space is held with compassion and we honour everyones journey

If at any point during the seminar, you need a moment to step away or process, please do so.

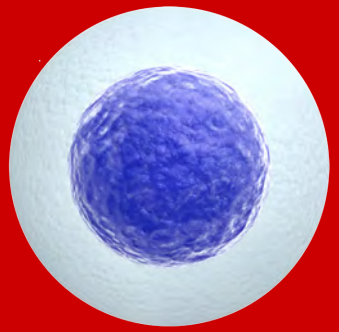
We are here not only to share knowledge and to support each other as practitioners & human beings

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

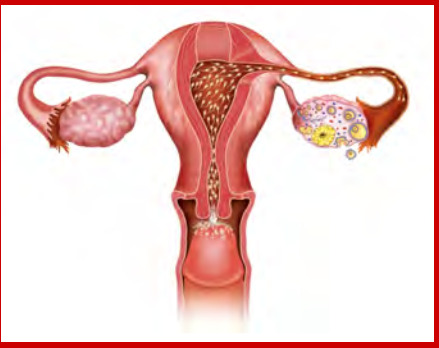
Healthy egg + healthy sperm+ healthy uterine lining = conception

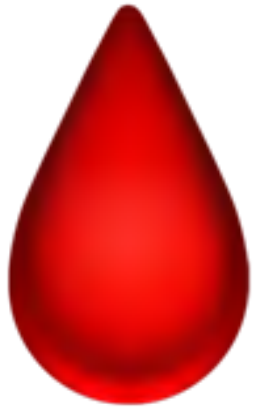
WHAT ARE YOU OUTCOMES FOR THIS SEMINAR?



THE BASICS

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





HAVE PATIENCE!

Conception takes time.

4-6 months of trying + give options

DETECTIVE SYSTEM CLEAR

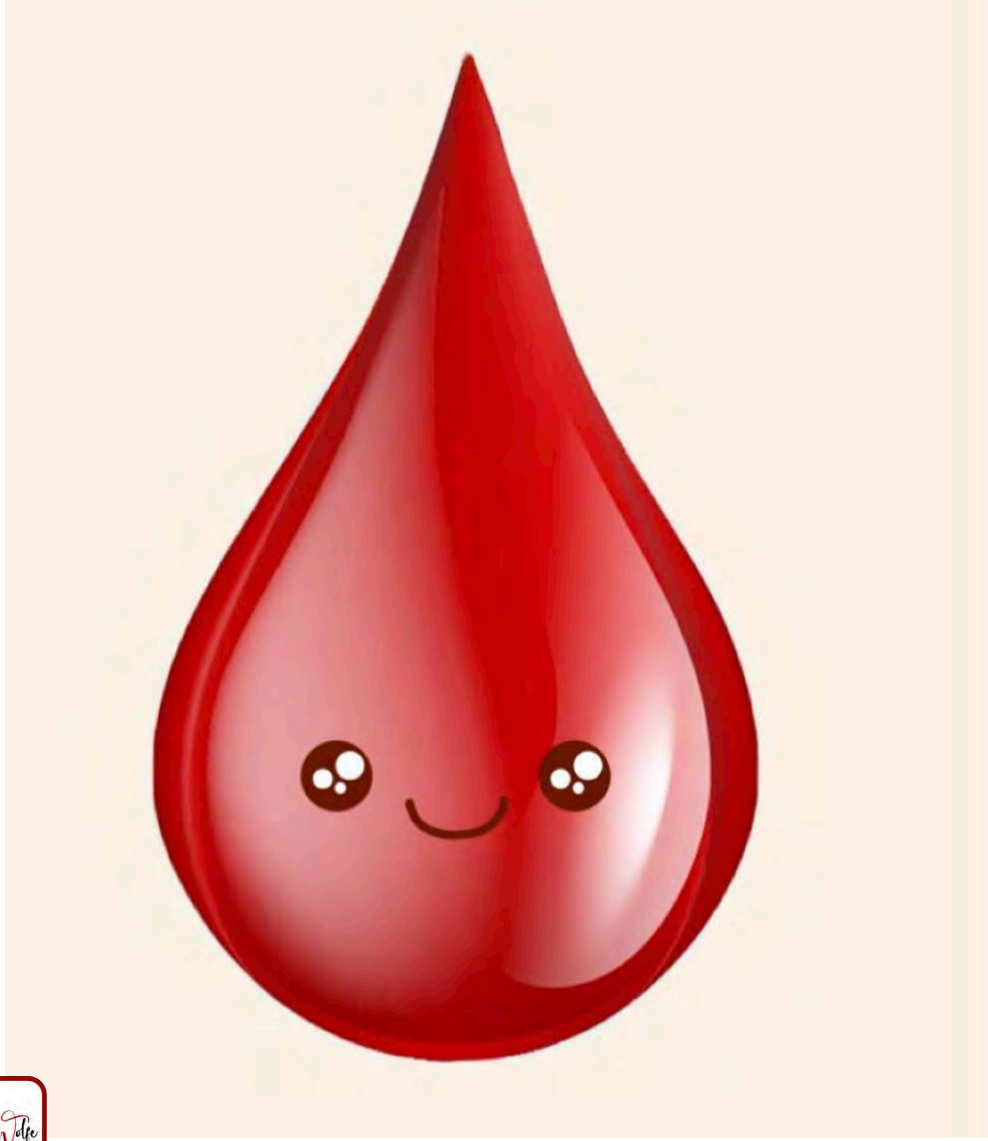
- Bloods are clear
- Sperm is fertile
- BBT is a “get pregnant chart”
- Menstrual cycle is great
- Timing is good
- Tubal patency
- Ultrasound
- Laparoscopy

THEN WHAT??

- **Advanced bloods - autoimmune/clotting**
- **PGT-A Testing**
- **Sperm DNA fragmentation**
- **NK cell biopsy**
- **EMMA & ALICE TEST**
- **DQ ALPHA**
- **VAGINAL MICROBIOME**

FERTILITY DETECTIVE SYSTEM - RIF& RM

- **BLOODWORK**
  - Iron Panel
  - Autoimmune markers
  - Blood clotting factors
  - Thyroid Panel
  - Thyroid Antibodies
  - Low Progesterone
- **UTERINE LINING**
  - THICKNESS
  - EMMA
  - ALICE
  - NK
  - DQ Alpha
  - Adenomyosis/Endometriosis
  - Fibroids
- **ANATOMICAL**
  - Heart Shape Utersus
  - Hydrosalphinx
- **EMBRYO**
  - Genetically Viable
  - Poor Quality?
- **SPERM**
  - Morphology
  - DNA fragmentation



BLOOD IS EVERYTHING

(Qi, blood & body fluids)

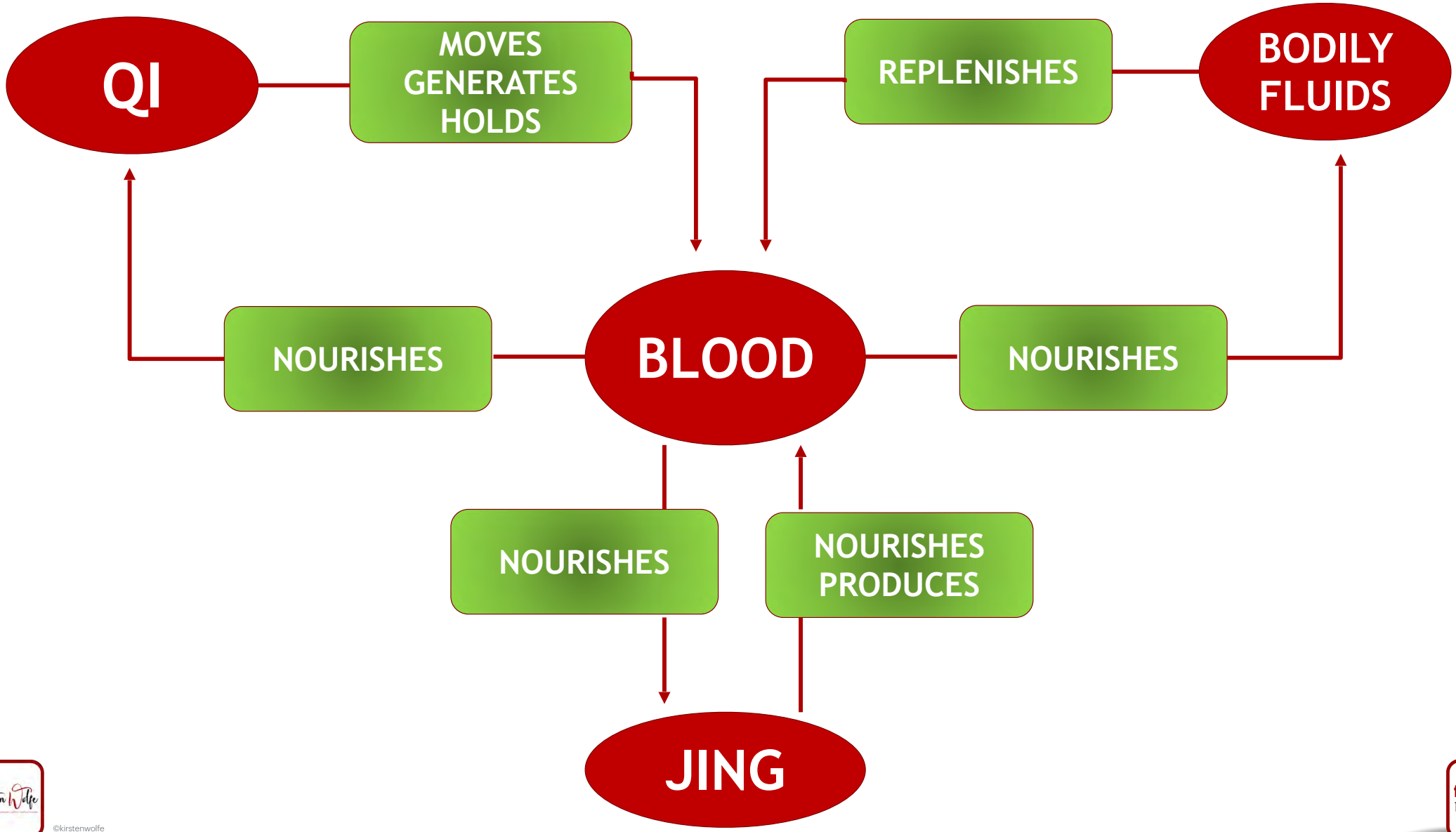
Nourishment: Blood nourishes the Chong Mai (Penetrating Vessel) and Ren Mai (Conception Vessel), which are responsible for sustaining pregnancy.

Stabilization: Blood "anchors" the foetus in the uterus and prevents spotting or miscarriage.

Blood and Essence (Jing) are interdependent. Kidney Deficiency often leads to Blood Xu

Qi generates and moves Blood. Without sufficient Qi, Blood production and circulation are impaired.

Blood Deficiency can lead to stagnation due to insufficient volume to keep the Blood moving.



RECURRENT MISCARRIAGE

Recurrent pregnancy loss is two or more failed pregnancies.

The definition of “loss” can include pregnancies that were confirmed via pregnancy test or confirmed in the clinic via ultrasound.

around 1-2% of women experience recurrent miscarriage.

BEWARE

DO NOT MOVE BLOOD IF MISCARRIAGE HASN"T BEEN CONFIRMED VIA BLOODS or ULTRASOUND

Common, Not Always a Miscarriage:

Bleeding occurs in 1 in 4 women in early pregnancy, with many going on to have a healthy baby.

MISCARRIAGE

Miscarriage Statistics:

- Up to **1 in 4 women** who know they are pregnant will experience miscarriage before 20 weeks, most often in the first 12 weeks.
- The true rate is higher due to very early miscarriages that may go unnoticed.
- In Australia, over 100,000 people are affected by miscarriage every year (around 285 per day)

Chromosomal Abnormalities:

- About **50% of miscarriages** are due to abnormal chromosomes in the embryo, preventing proper development.
- In such cases, miscarriage is nature's way of managing an abnormal pregnancy.

Nothing can be done to prevent miscarriage from occurring if a pregnancy is developing abnormally.

MISCARRIAGE IMPACT ON PREGNANCY

Without treatment, the likelihood of a successful pregnancy decreases:

- After 3 miscarriages: 30%
- After 4 miscarriages: 25%
- After 5 miscarriages: 5%

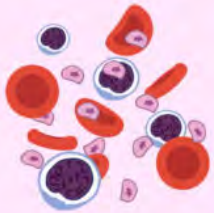
DETECTIVE SYSTEM - BE SURE!

* Is each miscarriage for exactly the same reason?
* Or is it different each time, eg 6 week loss (Chromosomal), 10 weeks loss and diagnosed as blood clotting, early pregnancy test and bleeding at 5 weeks
* Bleeding DOESN'T equal miscarriage. Must confirm via Ultrasound or Beta HCG before giving herbs/acupuncture to move blood

CAUSES OF RECURRENT MISCARRIAGE

Maternal age

Genetic causes



Immunological causes

Anatomical causes

Endocrine causes

CAUSES OF RECURRENT MISCARRIAGE

	Condition	Mechanism	Testing	Western Medical Treatment
Genetic Factors	Embryonic Chromosomal Abnormalities	Aneuploidy (extra/missing chromosomes)	Karyotyping of products of conception; Preimplantation Genetic Testing (PGT-A)	IVF with PGT-A & genetic counselling
Genetic Factors	Parental Chromosomal Translocations	Structural abnormalities like balanced translocations	Parental karyotyping	IVF with PGT-A & genetic counselling
Endocrine Disorders	Polycystic Ovary Syndrome (PCOS)	Hormonal imbalance affects ovulation and endometrial receptivity	Hormone panels (FSH, LH, testosterone, AMH), ultrasound	Metformin, ovulation induction, lifestyle changes. Clomid, Letrozole
Endocrine Disorders	Thyroid Dysfunction	Low/high thyroid hormone levels impair pregnancy maintenance	TSH, T3/T4, anti-TPO antibodies	Thyroid hormone replacement (levothyroxine) or antithyroid drugs
Endocrine Disorders	Progesterone Deficiency (Luteal Phase Defect)	Insufficient endometrial support	Serum progesterone during luteal phase	Progesterone supplementation (oral, vaginal, or injectable)
Blood Clotting Disorders	Antiphospholipid Syndrome (APS)	Autoantibodies cause placental clots	Lupus anticoagulant, anticardiolipin antibodies, beta-2 glycoprotein I antibodies	Low-dose aspirin, Clexane
Blood Clotting Disorders	Factor V Leiden, Prothrombin Mutation	Genetic thrombophilia causes blood clots in placental vessels	Genetic testing (Factor V Leiden, prothrombin G20210A)	Low-dose aspirin, Clexane
Autoimmune Factors	Autoimmune Thyroiditis	Autoantibodies attack fetal or placental tissue	Anti-TPO, anti-thyroglobulin antibodies	Thyroid hormone replacement
Autoimmune Factors	Systemic Lupus Erythematosus (SLE)	Autoantibodies damage fetal or placental tissues	ANA, anti-dsDNA	Low-dose steroids, hydroxychloroquine, IVIG
Endometrial Factors	Endometriosis	Chronic inflammation, impaired uterine receptivity, immune dysfunction	Ultrasound, MRI, laparoscopy	Laparoscopic excision, GnRH agonists, immune modulation
Endometrial Factors	Chronic Endometritis	Persistent uterine inflammation due to bacterial infection	Endometrial biopsy, ALICE test	Antibiotics, probiotics
Endometrial Factors	Thin Endometrium	Poor uterine lining thickness impairs implantation	Ultrasound (endometrial thickness)	Estrogen supplementation, PRP therapy
Uterine Abnormalities	Septate Uterus	Structural defect impairs implantation	Ultrasound, MRI, hysteroscopy	Surgical correction (hysteroscopic metroplasty)
Uterine Abnormalities	Fibroids, Adhesions	Uterine pathology blocks implantation	Ultrasound, hysteroscopy	Surgical removal (myomectomy, adhesion resection)
Uterine Abnormalities	Asherman‚Äôs Syndrome	Intrauterine adhesions reduce endometrial receptivity	Hysteroscopy (gold standard)	Surgical hysteroscopic adhesiolysis
Male Factor	Sperm DNA Fragmentation	High sperm DNA damage reduces embryo quality	Sperm DNA fragmentation testing	Antioxidants (CoQ10, Vitamin C/E)
Male Factor	Advanced Sperm Selection (PICSI, IMSI)	Improves sperm quality and selection for fertilization	Hyaluronic acid binding, high-magnification sperm selection	ICSI, PICSI, IMSI
Lifestyle Factors	Smoking, Alcohol, High BMI	Oxidative stress, hormonal imbalance	Clinical evaluation	Lifestyle changes, smoking cessation, weight management

CLINICALLY WHAT I SEE AS CAUSATIVE

- Low Ferritin/Iron
- Low Sperm morphology - high DNA fragmentation
- Repeated transfers with unviable embryos
- NK cells in uterine lining (+DQ Alpha)
- ERA & ALICE +ve
- Clotting factors or autoimmune
- TSH too High with antibodies
- Low progesterone - Luteal phase defect

WM STATS

Table 1. Pregnancy loss by maternal age[1]

Maternal age (years)	Rate of pregnancy loss (%)
20–24	11
25–29	12
30–34	15
35–39	25
40–44	51
>45	93

https://www1.racgp.org.au/ajgp/2018/july/recurrent-pregnancy-loss

WM RECOMMEDATIONS

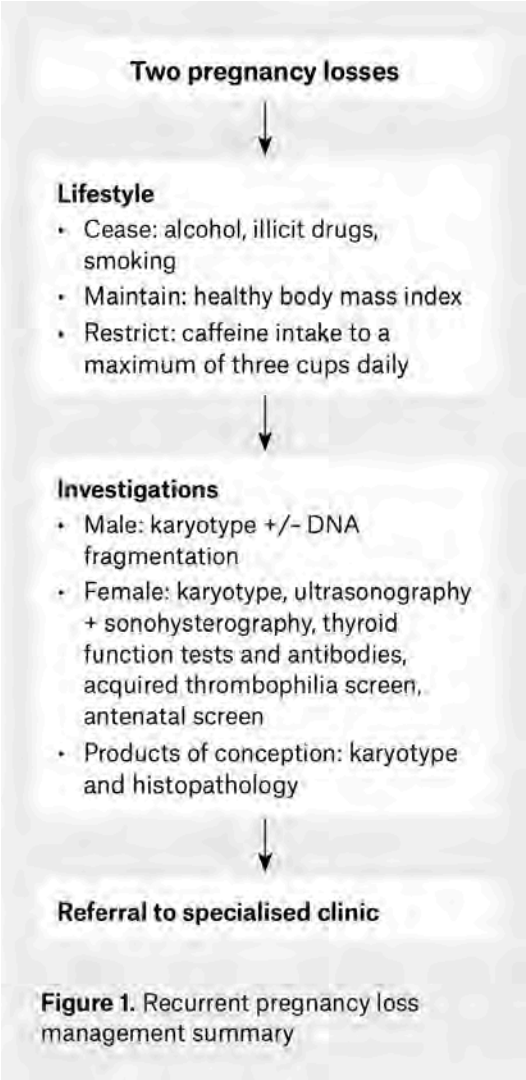


Figure 1. Recurrent pregnancy loss management summary

https://www1.racgp.org.au/ajgp/2018/july/recurrent-pregnancy-loss

WM INVESTIGATIONS

Table 2. Investigation summary for recurrent pregnancy loss

Investigations	Yes	Maybe	No
Anatomical	Two-dimensional/ three-dimensional ultrasonography and sonohysterography **or** Combination laparosopy and hysteroscopy	MRI	
Genetic	Karyotype: POC	Karyotype: parental	
Thrombophilia	Acquired: APS	Anti-β2 glycoprotein	Congenital thrombophilia
Infection		LVS/HVS/chlamydia Endometrial biopsy and culture	TORCH
Immunological		Antinuclear antibody	HLA Natural killer cells (research only)
Endocrinological	TSH (FT3/4 and antibodies if TSH abnormal)	Prolactin	
Male factor		Sperm DNA fragmentation index	

APS, antiphospholipid syndrome; DNA, deoxyribonucleic acid; FT3, free triiodothyronine; FT4, free thyroxine; HLA, human leukocyte antigen; HVS, high vaginal swab; LVS, low vaginal swab; MRI, magnetic resonance imaging; POC, products of conception; TORCH, toxoplasmosis, other agents, rubella, Cytomegalovirus and Herpes simplex; TSH, thyroid-stimulating hormone

https://www1.racgp.org.au/ajgp/2018/july/recurrent-pregnancy-loss

WM TREATMENT

Table 3. Treatment summary for recurrent pregnancy loss

Treatment	Yes	Maybe	No
Anatomical	Submucosal fibroid surgical management suggested	Uterine septa Endometrial polyps Uterine synechiae	Other Müllerian anomalies
Genetic	Pre-implantation genetic diagnosis (in known parental karyotypic abnormalities)	Pre-implantation genetic screening	
Thrombophilia	Aspirin and unfractionated heparin in the context of APS		Aspirin
Infection	Antibiotics: if clinical evidence of infection		Prophylactic antibiotics
Immunological			Prednisone IVIG Partner lymphocyte transfusion Intralipid
Endocrinological	Control of diabetes mellitus Overt hypo/hyperthyroidism	Subclinical hypothyroidism Progesterone	Androgens β-hCG LH
Male factor	Lifestyle modification	PICSI IMSI Antioxidants	
Environment/ lifestyle	Smoking: cease Illicit drugs: cease Maintain normal BMI Specialised and individualised care in dedicated clinic	Limiting caffeine to ≤3 serves per day	

APS, Antiphospholipid syndrome; β-hCG, beta human chorionic gonadotropin; BMI, body mass index; IMSI, intracytoplasmic morphologically selected sperm injection; IVIG, intravenous immunoglobulin; LH, luteinising hormone; PICSI, physiological intracytoplasmic sperm injection; TORCH, toxoplasmosis, other agents, rubella, Cytomegalovirus and Herpes simplex

https://www1.racgp.org.au/ajgp/2018/july/recurrent-pregnancy-loss

HOW IS YOUR HEART

TYPES OF MISCARRIAGE

- **Threatened Miscarriage**: Bleeding with a closed cervix; pregnancy may continue.
- **Inevitable Miscarriage**: Heavy bleeding with an open cervix; pregnancy loss is unavoidable.
- **Complete Miscarriage**: All pregnancy tissue is expelled; no further treatment needed.
- **Incomplete Miscarriage**: Some tissue remains; may require medical or surgical intervention.
- **Missed Miscarriage**: Foetal development stops; often asymptomatic, usually discovered a at 13 week ultrasound
- **Septic Miscarriage**: Infection accompanies pregnancy loss; urgent medical care needed.
- **Blighted Ovum**: Embryo fails to develop; diagnosed via ultrasound.
- **Chemical Pregnancy**: Early loss shortly after implantation; can present as heavy bleeding.
- **Ectopic Pregnancy**: Implantation outside the uterus; requires medical or surgical treatment.
- **Molar Pregnancy**: Abnormal tissue growth; needs surgical removal and follow-up.

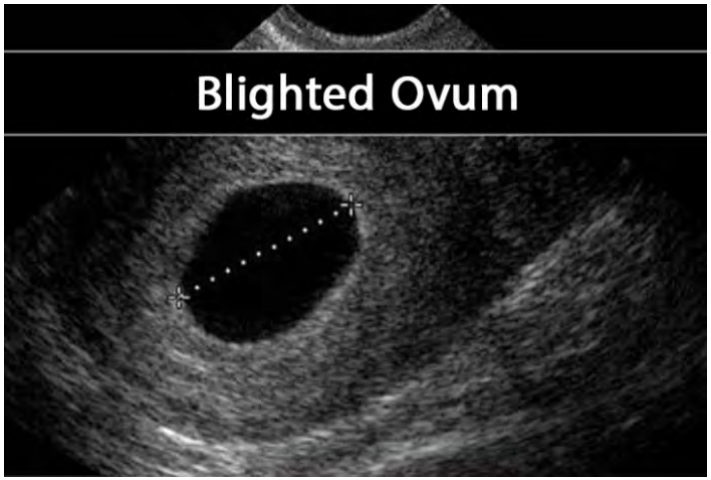
TYPES OF MISCARRIAGE

Blighted Ovum
'An embryonic Pregnancy' – fertilised egg implants into uterine wall but no foetal development. May be gestational sac with/without yolk sac

Ectopic Pregnancy
Fertilised egg implants outside uterus, usually in fallopian tube

Molar Pregnancy
Genetic error during fertilitsation and consequent growth of abnormal tissue within uterus

A blighted ovum is the number one cause of first trimester miscarriages.



DEFINITION

A blighted ovum occurs when a fertilized egg implants in the uterus but the embryo fails to develop. The gestational sac forms, but it remains empty.

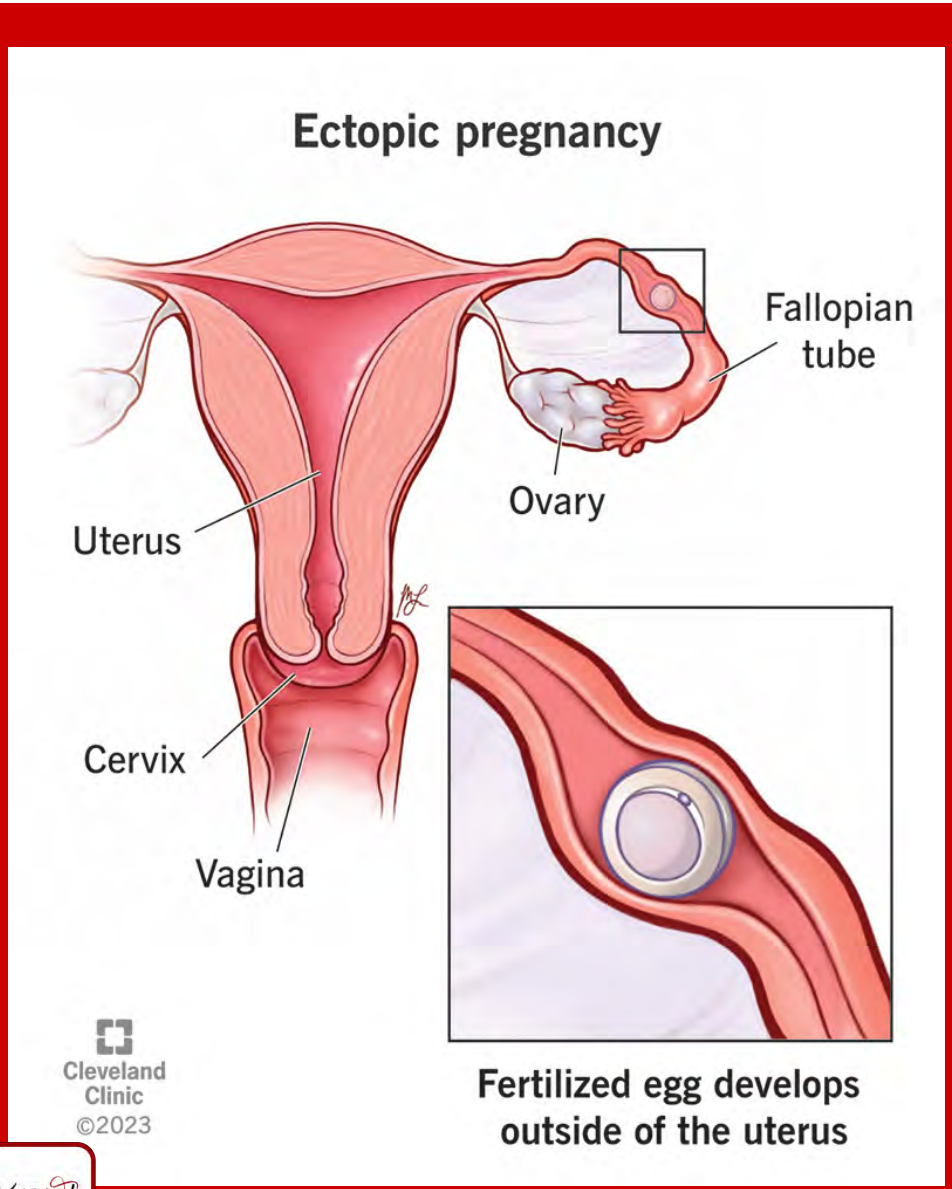
CAUSES

- Chromosomal abnormalities in the embryo, often due to random errors during fertilization or cell division.
- Poor egg or sperm quality.
- Advanced maternal age.

S&S

- Early pregnancy symptoms (missed period, nausea, breast tenderness).
- Vaginal spotting or bleeding.
- Cramping in the lower abdomen.
- On ultrasound: an empty gestational sac without a visible em

- **Expectant Management:** Allowing the body to pass the tissue naturally.
- **Medical Management:** Administration of medications (e.g., misoprostol) to expel pregnancy tissue.
- **Surgical Management:** Dilation and curettage (D&C) to remove tissue if necessary.



DEFINITAN

An ectopic pregnancy occurs when a fertilized egg implants outside the uterine cavity, most commonly in the fallopian tube.

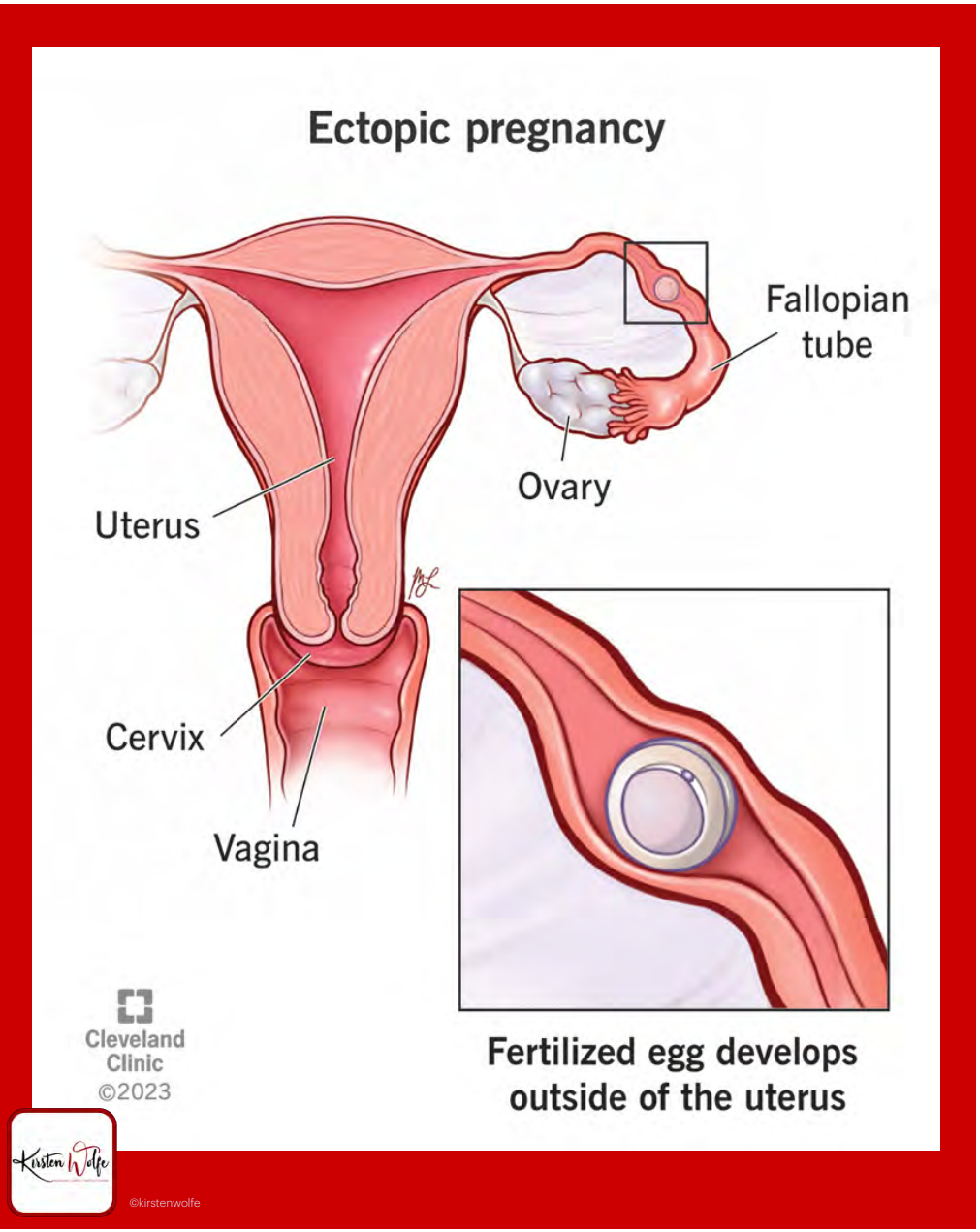
CAUSES

- Damage or scarring of the fallopian tubes due to:
  - Pelvic inflammatory disease (PID).
  - Previous surgery or ectopic pregnancy.
  - Endometriosis.

- Structural abnormalities in the reproductive tract.
- Smoking or assisted reproductive technologies (e.g., IVF).

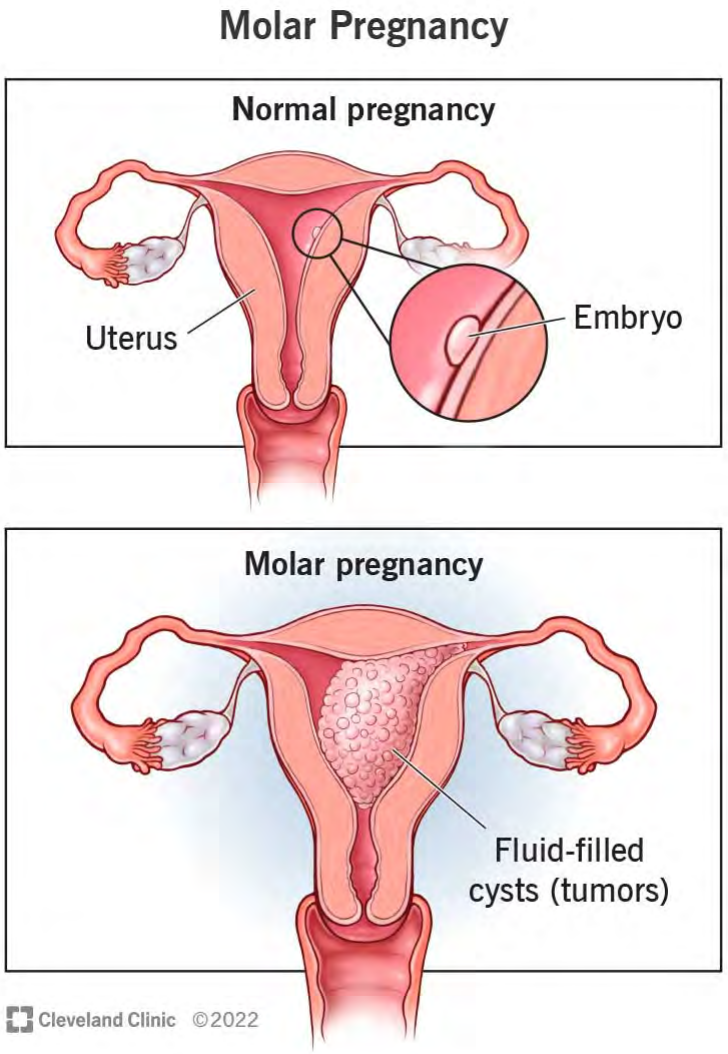
S&S

- **Vaginal Bleeding**
- **Pelvic pains and cramping**
- **High blood pressure**
- **Severe nausea and vomiting**
- **Dizziness, fainting, or low blood pressure (in cases of rupture).**
- **Positive pregnancy test but abnormal rise in hCG levels.**



TREATMENT

- **Medical Treatment:** Methotrexate to dissolve the pregnancy if detected early and unruptured.
- **Surgical Treatment:** Laparoscopy or laparotomy to remove the ectopic pregnancy and, in some cases, the affected fallopian tube.
- **Expectant Management:** For very early, resolving ectopic pregnancies under close monitoring.



DEFINITION

A molar pregnancy is a rare complication of pregnancy characterised by abnormal growth of trophoblastic tissue, which forms the placenta.

- **Complete mole: No foetus, only abnormal placental tissue.**
- **Partial Mole: Abnormal foetus and abnormal placental tissue.**

CAUSES

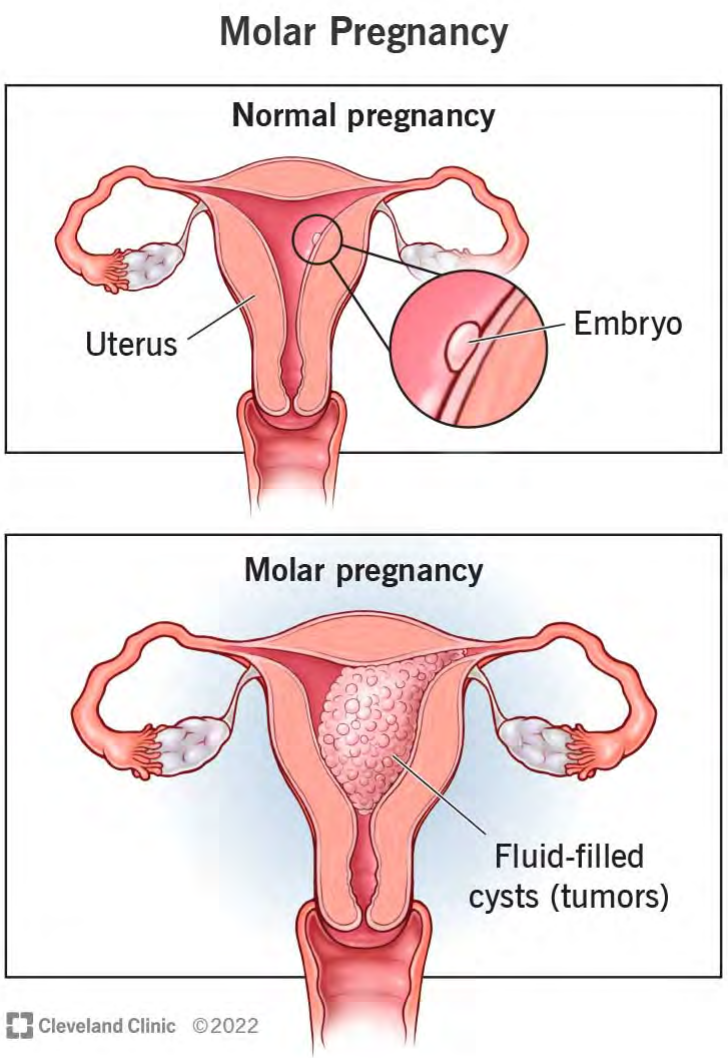
Abnormal fertilisation:

- **Complete mole: Fertilisation of an empty egg by one or two sperm.**
- **Partial mole: Fertilisation of a normal egg by two sperm, leading to triploidy. (Extra set of chromosomes)**

Risk factors include advanced maternal age or history of molar pregnancy.

S&S

- **Vaginal Bleeding often dark brown or grape-like clusters**
- **Severe nausea and vomiting (due to high hCG levels).**
- **Rapidly enlarging uterus disproportionate to gestational age.**
- **On ultrasound: "Snowstorm" or "cluster of grapes" appearance with no viable fetus.**



TREATMENT

Evacuation of Uterus: Suction curettage to remove molar tissue.

Hcg Monitoring: 3 consecutive normal range HCG

Chemotherapy: In rare cases, if GTD develops. Gestational trophoblastic disease (GTD) is a term covering pregnancy conditions that involve the placental tissue turning cancer-like.

CAUSES OF RECURRENT MISCARRIAGE

	CONDITION	MECHANISM	TESTING	Western Medical Treatment
Genetic Factors	Embryonic Chromosomal Abnormalities	Aneuploidy (extra/ missing chromosomes)	Karyotyping of products of conception; Preimplantation Genetic Testing (PGT-A)	IVF with PGT-A & genetic counselling
Genetic Factors	Parental Chromosomal Translocations	Structural abnormalities like balanced translocations	Parental karyotyping	IVF with PGT-A & genetic counselling
Endocrine Disorders	Polycystic Ovary Syndrome (PCOS)	Hormonal imbalance affects ovulation and endometrial receptivity	Hormone panels (FSH, LH, testosterone, AMH), ultrasound	Metformin, ovulation induction, . Clomid/ Letrozole
Endocrine Disorders	Thyroid Dysfunction	Low/high thyroid hormone levels impair pregnancy maintenance	TSH, T3/T4, anti-TPO antibodies	Thyroid hormone replacement (levothyroxine) or antithyroid drugs
Endocrine Disorders	Progesterone Deficiency (Luteal Phase Defect)	Insufficient endometrial support	Serum progesterone during luteal phase	Progesterone supplementation (oral, vaginal, or injectable)
Blood Clotting Disorders	Antiphospholipid Syndrome (APS)	Autoantibodies cause placental clots	Lupus anticoagulant, anticardiolipin antibodies, beta-2 glycoprotein I antibodies	Low-dose aspirin, Clexane
Blood Clotting Disorders	Factor V Leiden, Prothrombin Mutation	Genetic thrombophilia causes blood clots in placental vessels	Genetic testing (Factor V Leiden, prothrombin G20210A)	Low-dose aspirin, Clexane
Autoimmune Factors	Autoimmune Thyroiditis	Autoantibodies attack fetal or placental tissue	Anti-TPO, anti-thyroglobulin antibodies	Thyroid hormone replacement
Autoimmune Factors	Systemic Lupus Erythematosus (SLE)	Autoantibodies damage fetal or placental tissues	ANA, anti-dsDNA	Low-dose steroids, hydroxychloroquine, IVIG

Blood Clotting Disorders RM

- Protein S Deficiency
- Antithrombin III Deficiency
- Hyperhomocysteinemia (Related to MTHFR Mutation)
- Congenital Thrombophilia (Rare)
- Antiphospholipid Syndrome (APS)
- Factor V Leiden Mutation
- Prothrombin Gene Mutation (G20210A)
- Protein C Deficiency

Blood Clotting Disorders RM

- **Antiphospholipid Syndrome (APS)**
  - Details
  - Testing
  - Treatment
    - Low-dose aspirin.
    - Clexane
- **Factor V Leiden Mutation**
  - Details
  - Testing
  - Treatment
    - Low-dose aspirin.
    - Clexane for additional risk factors or recurrent loss.
- **Prothrombin Gene Mutation (G20210A)**
  - Details
  - Testing
  - Treatment
    - Low-dose aspirin.
    - Clexane therapy if recurrent loss is confirmed.
- **Protein C Deficiency**
  - Details
  - Testing
  - Treatment
    - Clexane.
    - Anticoagulant dose adjusted based on severity.
- **Protein S Deficiency**
  - Details
  - Testing
  - Treatment
    - Clexane.
- **Antithrombin III Deficiency**
  - Details
  - Testing
  - Treatment
    - Clexane.
    - Antithrombin replacement therapy in severe cases.
- **Hyperhomocysteinemia (Related to MTHFR Mutation)**
  - Details
  - Testing
  - Treatment
    - Activated folate (L-methylfolate).
    - Vitamin B6 and B12 supplementation.
    - Dietary changes to include natural folates.
    - Anticoagulants like low-dose aspirin or Clexane if hypercoagulability is present.
- **Congenital Thrombophilia (Rare)**
  - Details
  - Testing
  - Treatment
    - Managed on a case-by-case basis with anticoagulants or thrombolytic agents.

Acupuncture and Chinese medicine holistically address blood clotting factors in recurrent pregnancy loss by improving uterine blood flow, reducing Blood Stasis, and enhancing microcirculation. These therapies complement Western anticoagulation treatments by clearing Heat, resolving inflammation, and nourishing Yin, while supporting the body's natural anticoagulant mechanisms to create an optimal environment for implantation and pregnancy maintenance.

Kirsten Wolfe

fertile life mastery

Autoimmune Factors RM & RIF

- **Systemic Lupus Erythematosus (SLE)**
- **HLA Compatibility Issues (DQ-alpha Matching)**
- **Other Autoimmune Conditions**
  - Sjogren's Syndrome: Associated with antiphospholipid antibodies
  - Rheumatoid Arthritis: Can increase inflammation during pregnancy
  - Undifferentiated connective tissue diseases (UCTD): Conditions with mixed autoimmune features
- **Antiphospholipid Syndrome (APS)**
  - Anticardiolipin antibodies (IgG, IgM)
  - Lupus anticoagulant
  - Beta-2 glycoprotein I antibodies
- **Antinuclear Antibodies (ANA)**
- **Thyroid Autoimmunity**
- **Natural Killer (NK) Cells Activity**

Autoimmune Factors RM & RIF

- **Antiphospholipid Syndrome (APS)**
  - Anticardiolipin antibodies (IgG, IgM)
  - Lupus anticoagulant
  - Beta-2 glycoprotein I antibodies
- **Antinuclear Antibodies (ANA)**
  - General marker of systemic autoimmune activity
  - Associated with systemic lupus erythematosus (SLE)
- **Thyroid Autoimmunity**
  - Anti-thyroglobulin antibodies
  - Anti-thyroid peroxidase (anti-TPO) antibodies
- **Natural Killer (NK) Cells Activity**
  - High uterine or peripheral NK cell activity
  - Potential immune rejection of the embryo
- **Systemic Lupus Erythematosus (SLE)**
  - Increases risk of pregnancy complications
  - Associated with recurrent miscarriage
- **HLA Compatibility Issues (DQ-alpha Matching)**
  - Lack of sufficient maternal-fetal immune tolerance
  - Similar HLA profiles between partners
- **Other Autoimmune Conditions**
  - Sjogren's Syndrome: Associated with antiphospholipid antibodies
  - Rheumatoid Arthritis: Can increase inflammation during pregnancy
  - Undifferentiated connective tissue diseases (UCTD): Conditions with mixed autoimmune features

Acupuncture and Chinese medicine effectively support autoimmune-related infertility by modulating immune imbalances, reducing inflammation, balancing cytokines, clearing Heat, resolving Blood Stasis, and nourishing Yin to enhance fertility outcomes.

CAUSES OF RECURRENT MISCARRIAGE

	CONDITION	MECHANISM	TESTING	Western Medical Treatment
Endometrial Factors	Endometriosis	Chronic inflammation, impaired uterine receptivity, immune dysfunction	Ultrasound, MRI, laparoscopy	Laparoscopic excision, GnRH agonists, immune modulation
Endometrial Factors	Chronic Endometritis	Persistent uterine inflammation due to bacterial infection	Endometrial biopsy, ALICE test	Antibiotics, probiotics
Endometrial Factors	Thin Endometrium	Poor uterine lining thickness impairs implantation	Ultrasound (endometrial thickness)	Estrogen supplementation, PRP therapy
Uterine Abnormalities	Septate Uterus	Structural defect impairs implantation	Ultrasound, MRI, hysteroscopy	Surgical correction (hysteroscopic metroplasty)
Uterine Abnormalities	Fibroids, Adhesions	Uterine pathology blocks implantation	Ultrasound, hysteroscopy	Surgical removal (myomectomy, adhesion resection)
Uterine Abnormalities	Asherman‚Äôs Syndrome	Intrauterine adhesions reduce endometrial receptivity	Hysteroscopy (gold standard)	Surgical hysteroscopic adhesiolysis
Male Factor	Sperm DNA Fragmentation	High sperm DNA damage reduces embryo quality	Sperm DNA fragmentation testing	Antioxidants (CoQ10, Vitamin C/E)
Male Factor	Low morphology, Oligospermia	Improves sperm quality and selection for fertilization	Hyaluronic acid binding, high-magnification sperm selection	ICSI, PICSI, IMSI, Sperm aspiration. Letrozole, FSH
Lifestyle Factors	Smoking, Alcohol, High BMI	Oxidative stress, hormonal imbalance	Clinical evaluation	Lifestyle changes, smoking cessation, weight management, diet

RECURRENT IMPLANTATION FAILURE

Know as (RIF) is the inability to achieve pregnancy after multiple high-quality embryo transfers, often linked to uterine or immune factors.

BUT CAN ALSO BE IN NATURAL CONCEPTION!

CAUSES OF RECURRENT IMPLANTATION FAILURE

Category	Condition	Mechanism	Testing	Treatment
Endometrial Factors	Chronic Endometritis	Persistent uterine inflammation	Endometrial biopsy; ALICE test	Antibiotics; probiotics
Endometrial Factors	Uterine Microbiome Imbalance	Pathogenic bacteria reduce uterine receptivity	Endometrial biopsy; EMMA test	Probiotics; antibiotics
Endometrial Factors	Thin Endometrium	Poor uterine lining thickness impairs implantation	Ultrasound (endometrial thickness)	Estrogen supplementation; PRP therapy; Viagra suppositories
Immune Dysregulation	High Uterine NK Cell Activity	Overactive immune response attacks embryo	Uterine biopsy, NK cell testing	Intralipids, IVIG, low-dose steroids, LOLA protocol
Immune Dysregulation	HLA Matching (DQ-alpha)	Lack of maternal-fetal immune tolerance	HLA typing	IVIG, Intralipids, LMIT, LOLA protocol, donor sperm/egg
Blood Flow Issues	Uterine Artery Insufficiency	Poor blood flow reduces implantation	Doppler ultrasound	Aspirin, Clexane, G-CSF
Anatomical Factors	Hydrosalpinx	Toxic fluid from blocked fallopian tubes harms embryo implantation	Ultrasound, hysterosalpingogram (HSG)	Surgical removal or clipping of affected tubes
Anatomical Factors	Ashermans Syndrome	Intrauterine adhesions reduce endometrial receptivity	Hysteroscopy	Surgical adhesiolysis
Endometrial Factors	Endometriosis	Chronic inflammation impairs uterine receptivity	Laparoscopy	Laparoscopic excision, GnRH agonists

CAUSES OF RECURRENT IMPLANTATION FAILURE

Category	Condition	Mechanism	Testing	Treatment
Embryo Factors	Aneuploid Embryos	Chromosomal abnormalities reduce implantation potential	PGT-A	IVF with PGT-A tested embryos
Embryo Factors	Sperm DNA Fragmentation	Damaged sperm DNA affects embryo quality	Sperm DNA fragmentation testing	Antioxidants (CoQ10, vitamin C, E); PICSI, IMSI
Male Factor	Sperm Morphology	Abnormal sperm shape reduces fertilization and embryo quality	Semen analysis (Kruger,Äôs strict criteria)	ICSI, IMSI
Male Factor	Sperm DNA Fragmentation	Fragmented DNA impairs embryo development and increases miscarriage risk	Sperm DNA Fragmentation Index (DFI) testing	Antioxidants, lifestyle changes, PICSI, IMSI

RIF CAUSES

- HLA Matching (DQ-alpha) — **Immune Dysregulation**
- Uterine Artery Insufficiency — **Blood Flow Issues**
- Hydrosalpinx — **Anatomical Factors**
- Asherman's Syndrome — **Anatomical Factors**
- Endometriosis — **Endometrial Factors**
- Sperm Morphology — **Male Factor**
- Sperm DNA Fragmentation — **Male Factor**
- **Embryo Factors** — Aneuploid Embryos
- **Embryo Factors** — Sperm DNA Fragmentation
- **Endometrial Factors** — ALICE Chronic Endometritis
- **Endometrial Factors** — EMMAUterine Microbiome Imbalance
- **Endometrial Factors** — Thin Endometrium
- **Immune Dysregulation** — High Uterine NK Cell Activity

Kirsten Wolfe

fertile life mastery

RIF CAUSES

Blood Flow Issues
- Uterine Artery Insufficiency
  - Mechanism: Poor blood flow reduces implantation
  - Testing: Doppler ultrasound
  - Treatment: Aspirin, Clexane, G-CSF

Anatomical Factors
- Hydrosalpinx
  - Mechanism: Toxic fluid from blocked fallopian tubes harms embryo implantation
  - Testing: Ultrasound, hysterosalpingogram (HSG)
  - Treatment: Surgical removal or clipping of affected tubes

Anatomical Factors
- Asherman's Syndrome
  - Mechanism: Intrauterine adhesions reduce endometrial receptivity
  - Testing: Hysteroscopy
  - Treatment: Surgical adhesiolysis

Endometrial Factors
- Endometriosis
  - Mechanism: Chronic inflammation impairs uterine receptivity
  - Testing: Laparoscopy
  - Treatment: Laparoscopic excision, GnRH agonists

Male Factor
- Sperm Morphology
  - Mechanism: Abnormal sperm shape reduces fertilization and embryo quality
  - Testing: Semen analysis (Kruger's strict criteria)
  - Treatment: ICSI, IMSI

Male Factor
- Sperm DNA Fragmentation
  - Mechanism: Fragmented DNA impairs embryo development and increases miscarriage risk
  - Testing: Sperm DNA Fragmentation Index (DFI) testing
  - Treatment: Antioxidants, lifestyle changes, PICSI, IMSI

Embryo Factors
- Aneuploid Embryos
  - Mechanism: Chromosomal abnormalities reduce implantation potential
  - Testing: PGT-A
  - Treatment: IVF with PGT-A tested embryos

Embryo Factors
- Sperm DNA Fragmentation
  - Mechanism: Damaged sperm DNA affects embryo quality
  - Testing: Sperm DNA fragmentation testing
  - Treatment: Antioxidants (CoQ10, vitamin C, E); PICSI, IMSI

Endometrial Factors
- Chronic Endometritis
  - Mechanism: Persistent uterine inflammation
  - Testing: Endometrial biopsy; ALICE test
  - Treatment: Antibiotics; probiotics

Endometrial Factors
- Uterine Microbiome Imbalance
  - Mechanism: Pathogenic bacteria reduce uterine receptivity
  - Testing: Endometrial biopsy; EMMA test
  - Treatment: Probiotics; antibiotics

Endometrial Factors
- Thin Endometrium
  - Mechanism: Poor uterine lining thickness impairs implantation
  - Testing: Ultrasound (endometrial thickness)
  - Treatment: Estrogen supplementation; PRP therapy; Viagra suppositories

Immune Dysregulation
- High Uterine NK Cell Activity
  - Mechanism: Overactive immune response attacks embryo
  - Testing: Uterine biopsy, NK cell testing
  - Treatment: Intralipids, IVIG, low-dose steroids, LOLA protocol

Immune Dysregulation
- HLA Matching (DQ-alpha)
  - Mechanism: Lack of maternal-fetal immune tolerance
  - Testing: HLA typing
  - Treatment: IVIG, Intralipids, LMIT, LOLA protocol, donor sperm/egg

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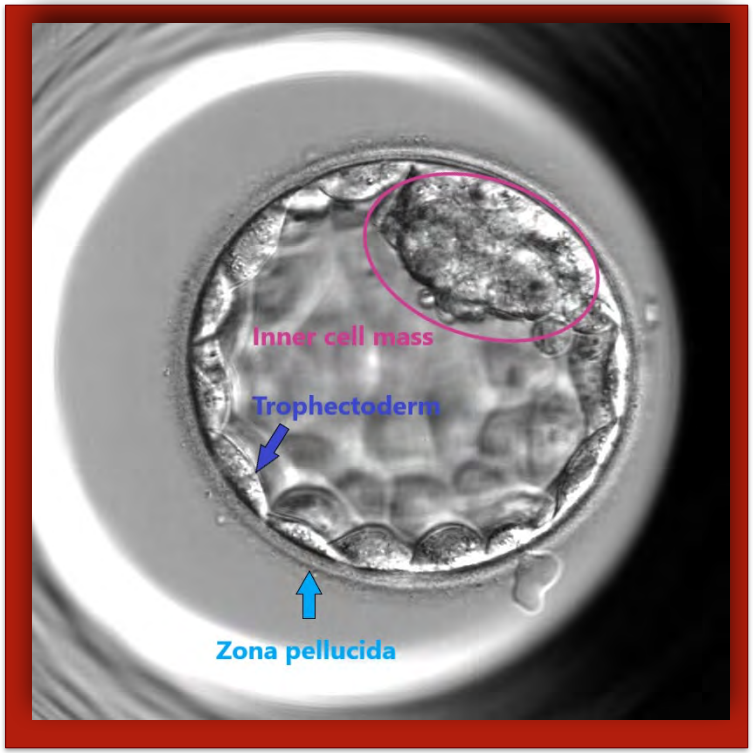
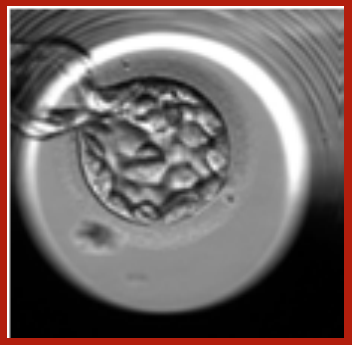
EMBRYOS

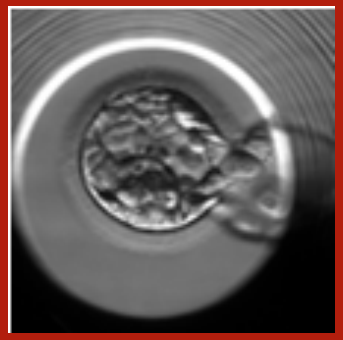
TROPHECTODERM BIOPSY



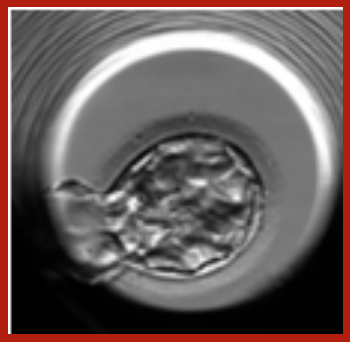
GENETIC TESTING OF EMBRYOS



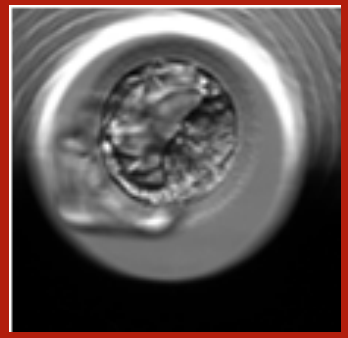
Embryo #4
Partial monosomy 8q21.3-qter



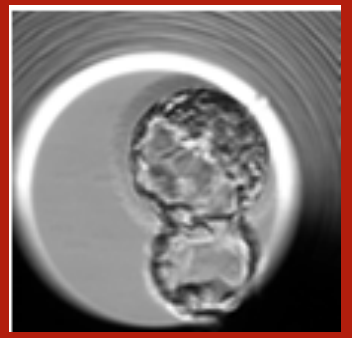
Embryo #5
Normal



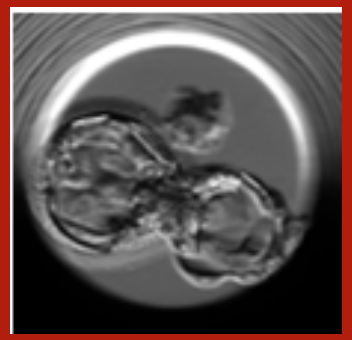
Embryo #6
Normal



Embryo #7
Trisomy 16, monosomy 22



Embryo #8
Normal



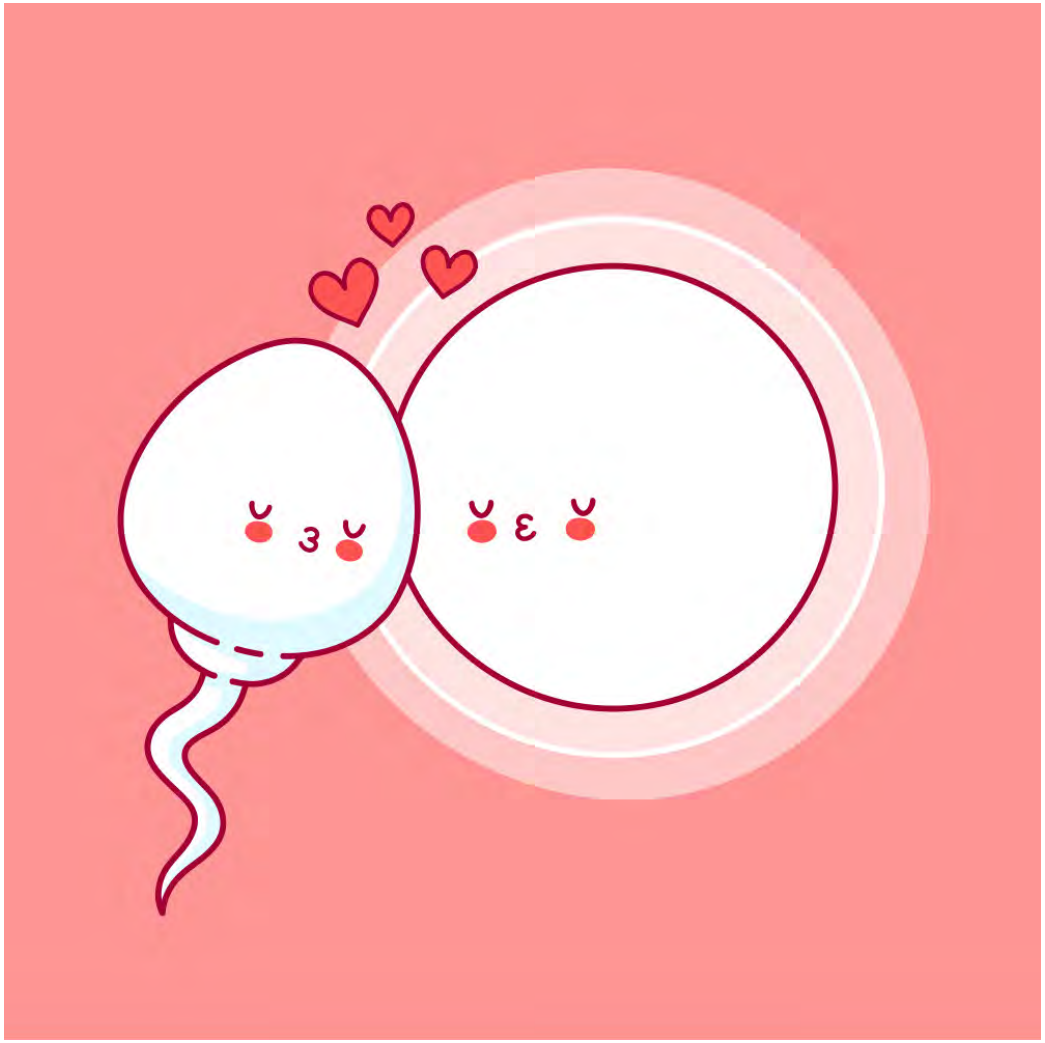
Embryo #9
Normal

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.

Kirsten Wolfe

fertile life seminar

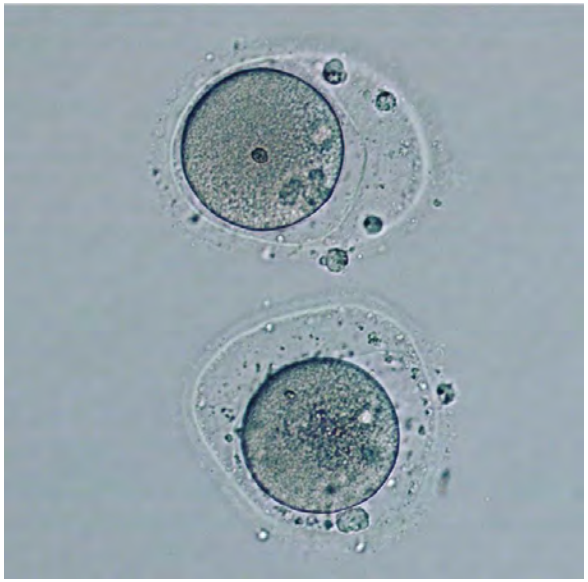
EUPLOID EMBRYO



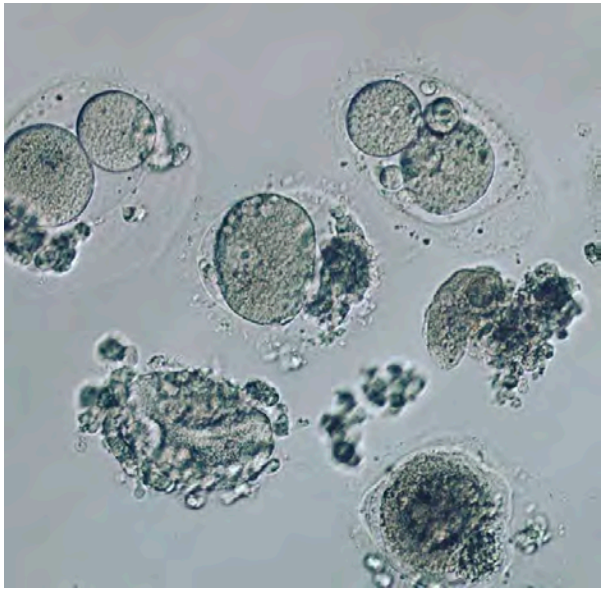
EGG QUALITY EXAMPLES

Good quality

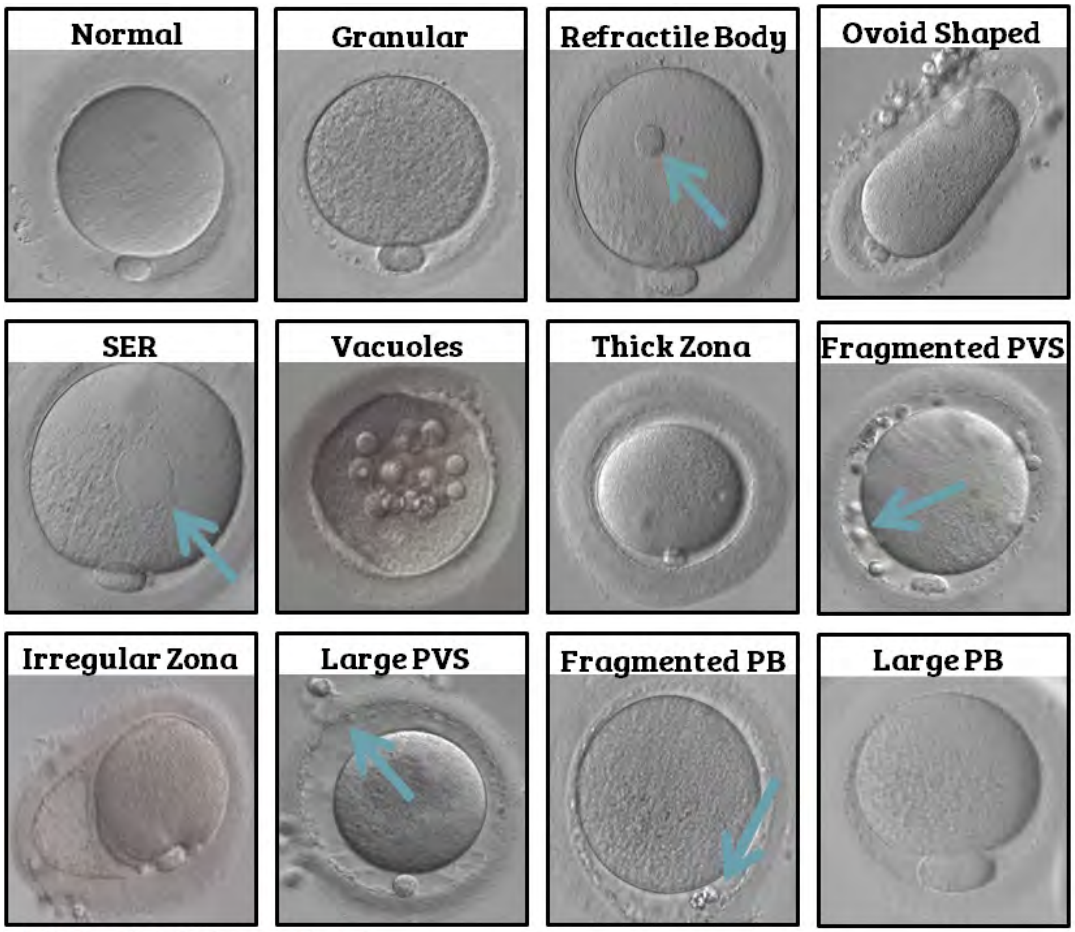
Fair quality



Poor quality

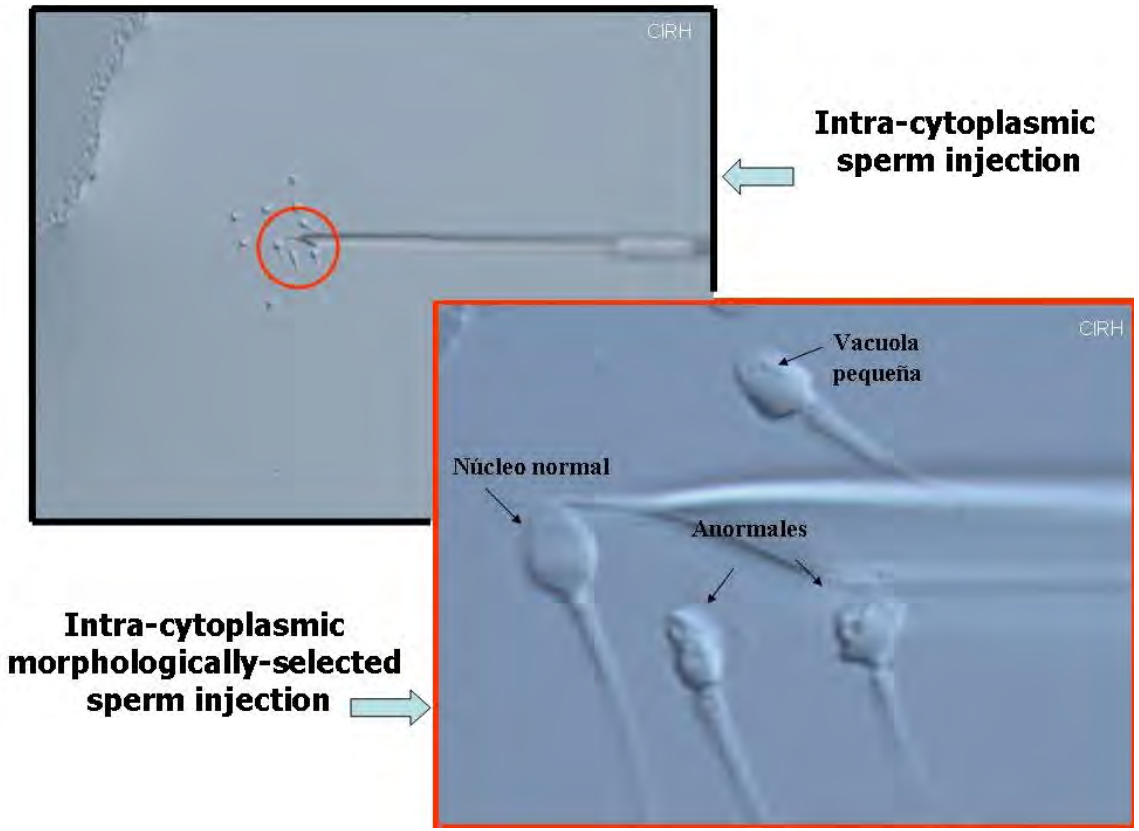


EGG QUALITY EXAMPLES



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

ICSI or IMSI



IMSI = **6600x** magnification - sperm is evaluated for the integrity of its nucleus, looking for sperm with no vacuole or minimal, Sperm with abnormally shaped heads or vacuoles are less likely to carry normal genetic material

ICIS = **400x** magnification - just looking for best shape sperm

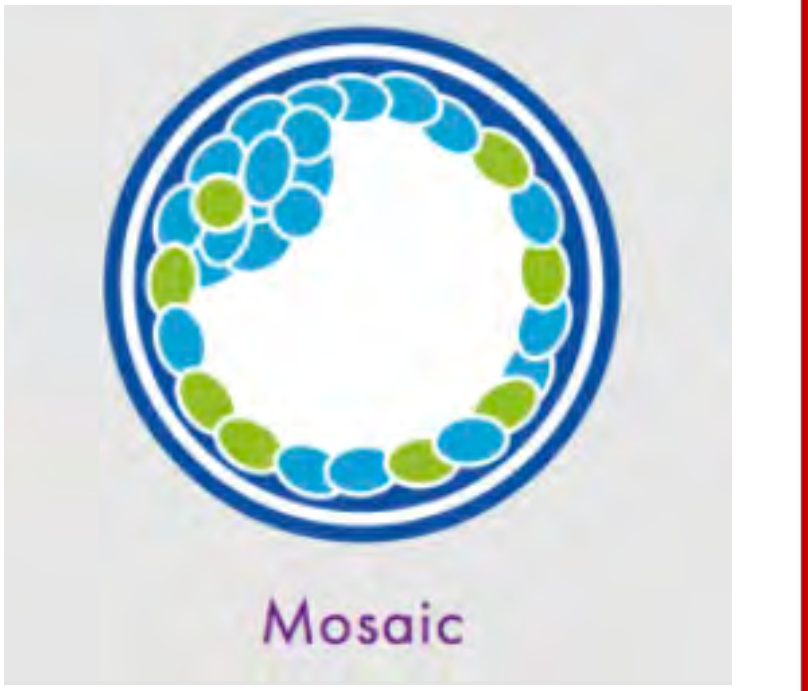
MOSAIC EMBRYOS

Mosaic embryos contain both normal and abnormal cells.

15% of all embryos are mosaics. However, these embryos tend to fall into a grey area. They can further range from low to high level mosaic embryos. This all depends on the percentage of normal versus abnormal cells.

Mosaic embryo transfer tends to be a controversial area in the world of ART. Transfer of low level mosaic embryos is generally safe. Transfer of high level mosaic embryos often lead to miscarriages, low implantation.

Low-level mosaic – 20 to 40 percent of the cells are abnormal.
High-level mosaic – 40-80% of the cells are abnormal
Abnormal – greater than 80 percent of the cells are abnormal



MOSAIC PERFECT BONNIE

HOW IS YOUR HEART

15 MIN BREAK

BLOOD CLOTTING
&
AUTOIMMUNE

Down the rabbit hole

Blood Clotting Disorders in Recurrent Pregnancy Loss

Protein S Deficiency
- Details
  - Similar to Protein C deficiency, Protein S deficiency prevents proper anticoagulation.
  - Can result in placental clot formation.
- Testing
  - Functional assay for Protein S activity.
- Treatment
  - Clexane.

Antithrombin III Deficiency
- Details
  - Genetic condition reducing the activity of antithrombin, a natural anticoagulant.
  - Causes increased risk of clotting in the placenta.
- Testing
  - Blood test for antithrombin III levels.
- Treatment
  - Clexane.
  - Antithrombin replacement therapy in severe cases.

Hyperhomocysteinemia (Related to MTHFR Mutation)
- Details
  - Elevated homocysteine levels damage blood vessels, increasing clot risk.
  - MTHFR gene mutations (e.g., C677T, A1298C) can impair folate metabolism, leading to hyperhomocysteinemia.
- Testing
  - Genetic testing for MTHFR mutations.
  - Blood test for homocysteine levels.
- Treatment
  - Activated folate (L-methylfolate).
  - Vitamin B6 and B12 supplementation.
  - Dietary changes to include natural folates.
  - Anticoagulants like low-dose aspirin or Clexane if hypercoagulability is present.

Congenital Thrombophilia (Rare)
- Details
  - Inherited thrombophilic conditions like dysfibrinogenemia or plasminogen deficiency.
- Testing
  - Comprehensive thrombophilia screen (specialized lab tests).
- Treatment
  - Managed on a case-by-case basis with anticoagulants or thrombolytic agents.

Antiphospholipid Syndrome (APS)
- Details
  - Autoimmune disorder causing abnormal blood clotting and placental dysfunction.
  - Antibodies: Anticardiolipin antibodies (IgG, IgM), Lupus anticoagulant, Beta-2 glycoprotein I antibodies.
- Testing
  - Blood tests for anticardiolipin antibodies, lupus anticoagulant, and beta-2 glycoprotein I antibodies.
  - Repeat testing after 12 weeks for confirmation.
- Treatment
  - Low-dose aspirin.
  - Clexane (enoxaparin).

Factor V Leiden Mutation
- Details
  - Most common genetic thrombophilia.
  - Mutation in Factor V gene prevents normal anticoagulant mechanisms.
  - Can lead to placental thrombosis and miscarriage.
- Testing
  - Genetic testing for Factor V Leiden mutation.
- Treatment
  - Low-dose aspirin.
  - Clexane for additional risk factors or recurrent loss.

Prothrombin Gene Mutation (G20210A)
- Details
  - Genetic mutation increasing prothrombin levels (Factor II).
  - Causes hypercoagulability and placental thrombosis.
- Testing
  - Genetic testing for Prothrombin G20210A mutation.
- Treatment
  - Low-dose aspirin.
  - Clexane therapy if recurrent loss is confirmed.

Protein C Deficiency
- Details
  - Rare inherited condition causing impaired regulation of clotting factors.
  - Leads to excessive clot formation in placental vessels.
- Testing
  - Functional assay for Protein C activity.
- Treatment
  - Clexane.
  - Anticoagulant dose adjusted based on severity.

Autoimmune Factors in Recurrent Miscarriage

Antiphospholipid Syndrome (APS)

- Details
  - Anticardiolipin antibodies (IgG, IgM)
  - Lupus anticoagulant
  - Beta-2 glycoprotein I antibodies
- Testing
  - Blood tests for lupus anticoagulant, anticardiolipin antibodies, and beta-2 glycoprotein I antibodies
- Treatment
  - Low-dose aspirin
  - Heparin

Antinuclear Antibodies (ANA)

- Details
  - General marker of systemic autoimmune activity
  - Associated with systemic lupus erythematosus (SLE)
- Testing
  - Blood tests for antinuclear antibodies (ANA)
- Treatment
  - Steroids (in severe cases)
  - Treatment tailored based on associated autoimmune conditions (e.g., SLE)

Thyroid Autoimmunity

- Details
  - Anti-thyroglobulin antibodies
  - Anti-thyroid peroxidase (anti-TPO) antibodies
- Testing
  - Blood tests for anti-TPO and anti-thyroglobulin antibodies
  - TSH, FT3, and FT4 levels
- Treatment
  - Levothyroxine for hypothyroidism
  - Monitoring thyroid function during pregnancy

Natural Killer (NK) Cells Activity

- Details
  - High uterine or peripheral NK cell activity
  - Potential immune rejection of the embryo
- Testing
  - Uterine biopsy for NK cell testing
  - Peripheral blood flow cytometry for NK activity
- Treatment
  - Intravenous immunoglobulin (IVIG)
  - Steroids
  - Intralipids
  - LOLA protocol

Systemic Lupus Erythematosus (SLE)

- Details
  - Increases risk of pregnancy complications
  - Associated with recurrent miscarriage
- Testing
  - ANA, anti-dsDNA antibodies, complement levels (C3, C4)
- Treatment
  - Low-dose steroids
  - Hydroxychloroquine
  - Low-dose aspirin

HLA Compatibility Issues (DQ-alpha Matching)

- Details
  - Lack of sufficient maternal-fetal immune tolerance
  - Similar HLA profiles between partners
- Testing
  - HLA typing (DQ-alpha matching)
- Treatment
  - Intravenous immunoglobulin (IVIG), LOLA Protocol, LMIT
  - Donor sperm or egg (in extreme cases)

Other Autoimmune Conditions

- Details
  - Sjogren's Syndrome: Associated with antiphospholipid antibodies
  - Rheumatoid Arthritis: Can increase inflammation during pregnancy
  - Undifferentiated connective tissue diseases (UCTD): Conditions with mixed autoimmune features
- Testing
  - Disease-specific autoantibody testing (e.g., rheumatoid factor, SSA/SSB antibodies)
- Treatment
  - Condition-specific management (e.g., hydroxychloroquine, corticosteroids)
  - Close monitoring during pregnancy

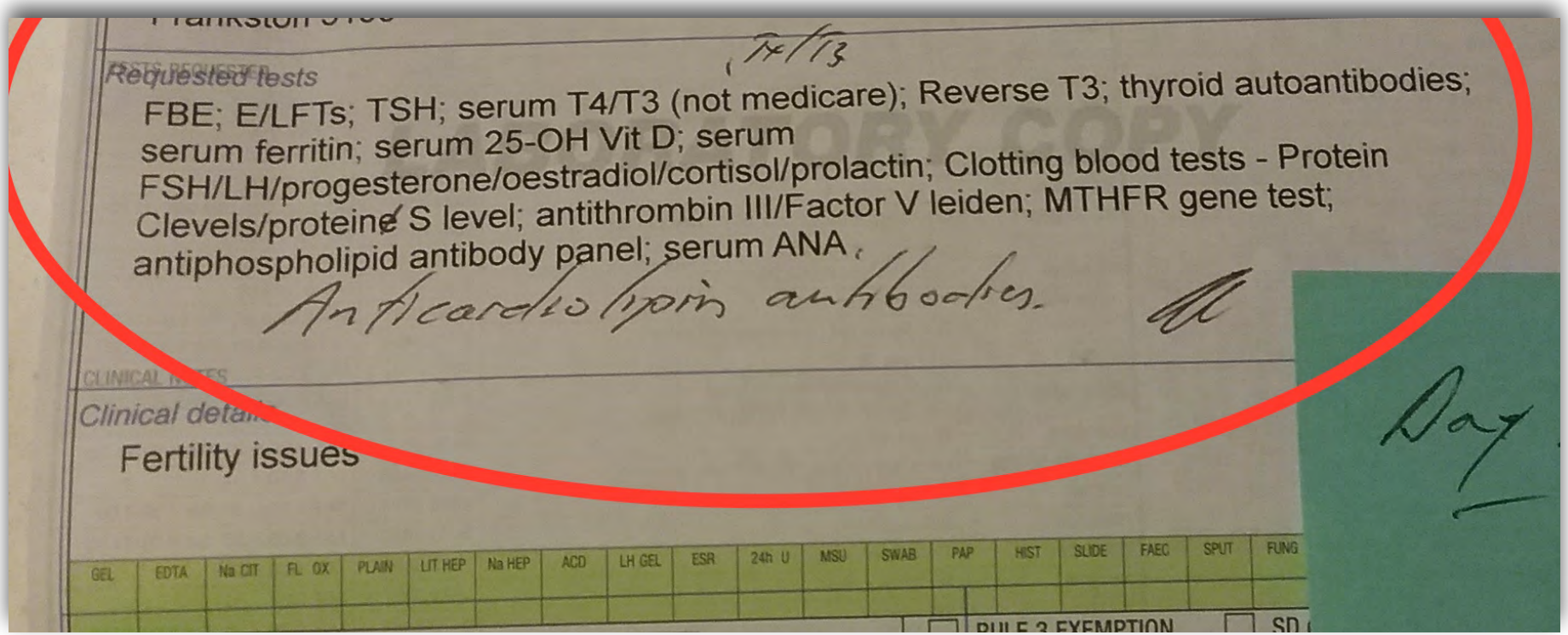
Implantation Failure / Recurrent Miscarriage

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 infertility can be detected or if repeated IVF attempts have failed despite the successful transfer of an adequate number of **euploid 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 are useful in the diagnosis of immunologic factors contributing to implantation failure.

MISCARRIAGE BLOODS



Requested tests

FBE; E/LFTs; TSH; serum T4/T3 (not medicare); Reverse T3; thyroid autoantibodies; serum ferritin; serum 25-OH Vit D; serum FSH/LH/progesterone/oestradiol/cortisol/prolactin; Clotting blood tests - Protein C levels/protein S level; antithrombin III/Factor V leiden; MTHFR gene test; antiphospholipid antibody panel; serum ANA; Anticardiolipin antibodies.

Clinical details

Fertility issues

Day 1

GEL | EDTA | Na CIT | FL OX | PLAIN | LIT HEP | Na HEP | ACD | LH GEL | ESR | 24h U | MSU | SWAB | PAP | HIST | SLIDE | FAEC | SPUT | FUNG

RULE 3 EXEMPTION

RECURRENT MISCARRIAGE BLOODS

Clotting blood tests

- Protein C levels
- Protein S levels
- 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

RECURRENT MISCARRIAGE BLOODS

Anticardiolipin Antibodies: Detects autoimmune antibodies linked to antiphospholipid syndrome, a major cause of recurrent miscarriage.

Lupus Anticoagulant: Screens for antiphospholipid syndrome by assessing clotting abnormalities.

Beta-2 Glycoprotein I Antibodies: Another marker for antiphospholipid syndrome.

Factor V Leiden Mutation: A genetic mutation associated with increased clotting risk.

Antithrombin III Deficiency: A deficiency in this natural anticoagulant increases the likelihood of clot formation.

Prothrombin 20210 Mutation: A genetic variant that increases the risk of thrombophilia.

Protein S and C Deficiency: Deficiencies in these natural anticoagulants can lead to excessive clotting.

Homocysteinemia: Elevated homocysteine levels, which increase clotting risk.

Methylene Tetrahydrofolate Reductase Deficiency (MTHFR): A genetic mutation affecting folate metabolism, often linked to elevated homocysteine.

IMPLANTATION FAILURE - NICK LOLAGITIS

Cystic Fibrosis
Y Deletion (Daz gene)

Prothrombin gene mutation

Factor V Leiden 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

What is Thrombophilia?

- A condition where blood has an increased tendency to clot.
- Normally, the mother's body suppresses clot formation in the uterus and placenta during pregnancy.

Impact on Pregnancy:

- Inadequate suppression of clotting can:
  - Disrupt blood flow to the placenta.
  - Impair placental function.
  - Contribute to complications, including pregnancy loss.

Treatment Options

- **Aspirin:**
  - Anti-inflammatory and antiplatelet agent.
  - Known as "baby aspirin" (100 mg/day).
- **Clexane:**
  - Blood-thinning injections.

AUTOIMMUNE FACTORS

Autoimmune Factors

- Antiphospholipid Antibodies (APA)
- Antinuclear Antibodies (ANA)
- Natural Killer (NK) Cells
- Thyroid Antibodies

Alloimmune Factor

- HLA DQ Alpha Blocking (Protective) Antibodies

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 :)**

ANTINUCLEAR ANTIBODIES (ANA)

Antinuclear Antibodies (ANA) 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.

Detection:

- ANA testing helps identify individuals at risk for systemic lupus erythematosus, collagen vascular disease, and reproductive autoimmune failure syndrome

Impact on Pregnancy:

- ANA antibodies cause inflammation in the body or uterus during implantation.
- Many women with high levels of ANA are unable to become pregnant or carry a pregnancy to term.

ANA TREATMENT

Prednisone:

- An anti-inflammatory corticosteroid that suppresses harmful immune responses to an embryo, allowing pregnancy to proceed.
- Prednisone does not easily pass through the placenta and is broken down by placental enzymes, exposing the foetus to only trace amounts.

Clinical Considerations:

- If ANA is present without other autoimmune conditions, the body may still be experiencing an autoimmune reaction requiring further evaluation.

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 & FERTILITY

- **Thyroid Peroxidase Antibodies (TPO/Anti-TPO)**:
  - Antibodies against thyroid peroxidase, an enzyme essential for thyroid hormone production.
  - Indicates autoimmune thyroid conditions such as Hashimoto's or Graves' disease.
- **Thyroglobulin Antibodies (TgAb)**:
  - Antibodies targeting thyroglobulin, a protein crucial for producing T3 and T4 hormones.
  - Suggests thyroid autoimmunity when present.

Impact on Fertility:

- Women with thyroid antibodies have up to **twice the risk of miscarriage** compared to those without.
- Found in ~30% of women experiencing recurrent miscarriage (RM).
- Linked to implantation failure after in vitro fertilization (IVF) and embryo transfer.

Thyroid antibodies indicate a broader immune dysfunction that needs addressing.

THYROID ANTIBODIES & FERTILITY

Mechanism:

- Immune system attacks thyroid tissue, disrupting hormone production.
- Inflammation in the uterus contributes to implantation failure and early pregnancy loss.

Treatment:

- **Levothyroxine**: To regulate thyroid hormone levels (TSH target: <2.5 mIU/L).
- **IVIG**: Modulates immune response and reduces inflammation.
- **Clexane**: Improves placental blood flow by reducing clotting risks.
- **Selenium**: Reduces TPO antibody levels in some cases.

When to Test:

- Two or more pregnancy losses.
- Recurrent implantation failure.
- Symptoms of thyroid dysfunction (e.g., fatigue, weight changes, cold intolerance).
- Temps below 35 on BBT chart
- Stop start menstrual cycle

THYROID ANTIBODIES TCM TX

* No Gluten or corn - autoimmune paleo diet
* Fix the GUT - Gu herbs
* Treat Shen, Spleen & Kidney
* Supplements: Selenium & other Low nutrients eg zinc, iron

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

UTERNINE NK CELLS

Down the rabbit hole

WHEN TO ADVISE TO TEST
For
NK & DQ-ALPHA

- Unexplained infertility
- Endometriosis/Adenomyosis
- Numerous failed embryo transfers
- 2x failed euploid embryo transfers
- Early pregnancy tests, then period
- Great chart, sperm, timing and no pregnancy
- Autoimmune disorders
- Food intolerances
- 2 or more miscarriages where embryo/fetus is genetically normal
- Infection post birth
- High ongoing stress
- High intensity exercise
- Inflammation
- GUT instinct

uNK CELLS 

uNK Cells as Immune Sentinels

- NK cells are designed to monitor for signs of abnormalities, such as infections, cancer cells, or non-viable embryos. Are found in the endometrium and differ from blood NK cells.

uNK Play a critical role in pregnancy

- Embryo implantation by regulating blood flow
- Remodeling maternal blood vessels to support the developing placenta.
- Immune tolerance of the semi-foreign embryo.

TESTING FOR uNK

A **uterine biopsy for Natural Killer (NK) cells** is a diagnostic procedure used to evaluate the activity and presence of NK cells in the uterine lining (endometrium) that is done post ovulation.

This test can provide insight into potential immune-related causes of recurrent pregnancy loss (RPL) or implantation failure, particularly in cases of unexplained infertility.

Understanding NK Cells in the Uterine Lining

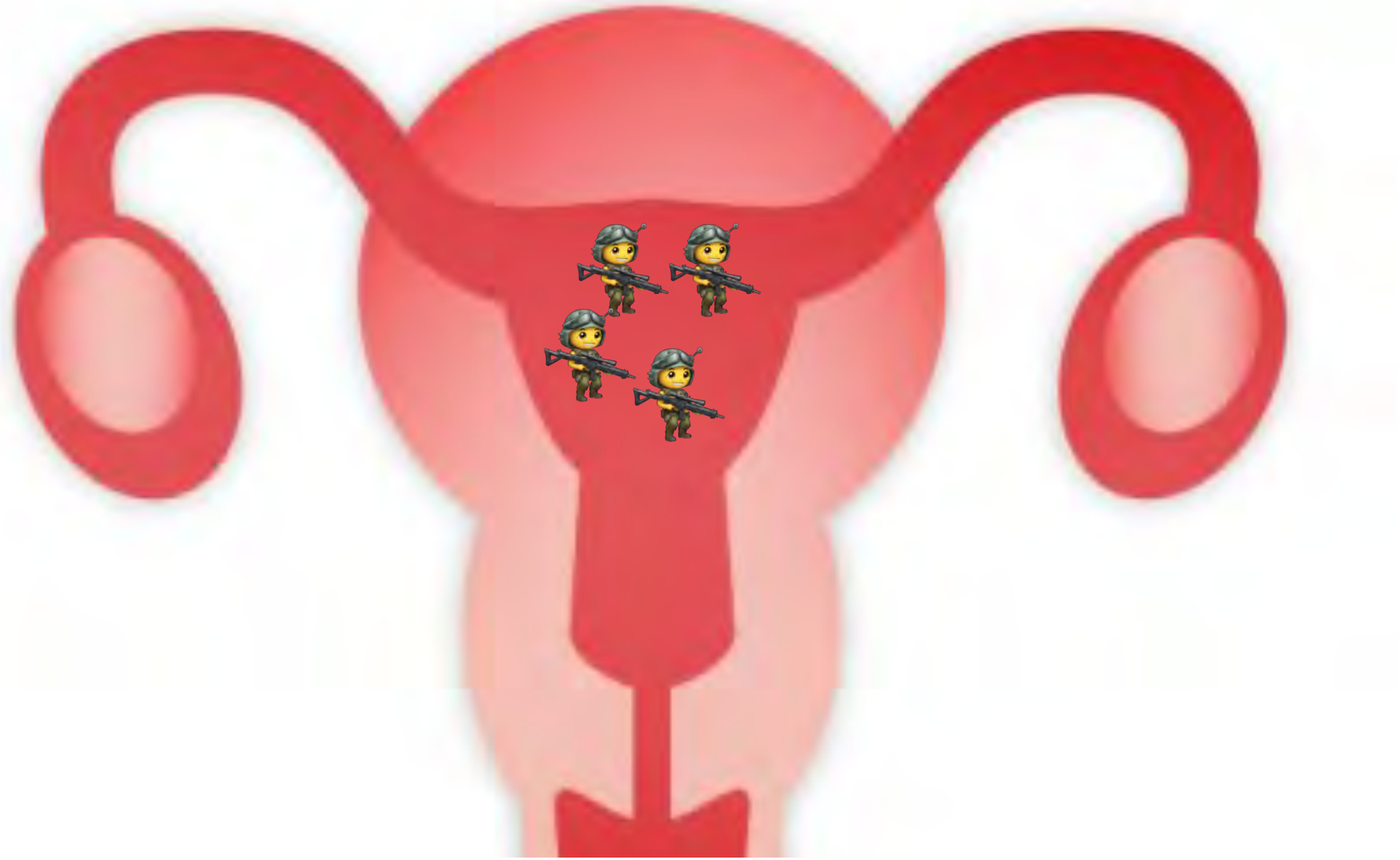
Procedure for Uterine Biopsy

1. **Timing:**
   - Typically performed in the **mid-luteal phase** of the menstrual cycle (7–10 days after ovulation).
   - This is when uNK cells are most active and can be accurately assessed.

2. **Process:**
   - A small sample of the endometrial lining is taken using a thin catheter or pipelle.
   - The procedure is minimally invasive and may cause mild cramping.

3. **Analysis:**
   - The sample is analyzed in a lab to measure:
     - The **number** of NK cells (immunohistochemistry to detect CD56+ cells, a marker for NK cells).
     - The **activity** or cytotoxicity of NK cells (if testing includes functional assays).

uNK CELLS – NORMAL DEFENCE



ABNORMAL uNK

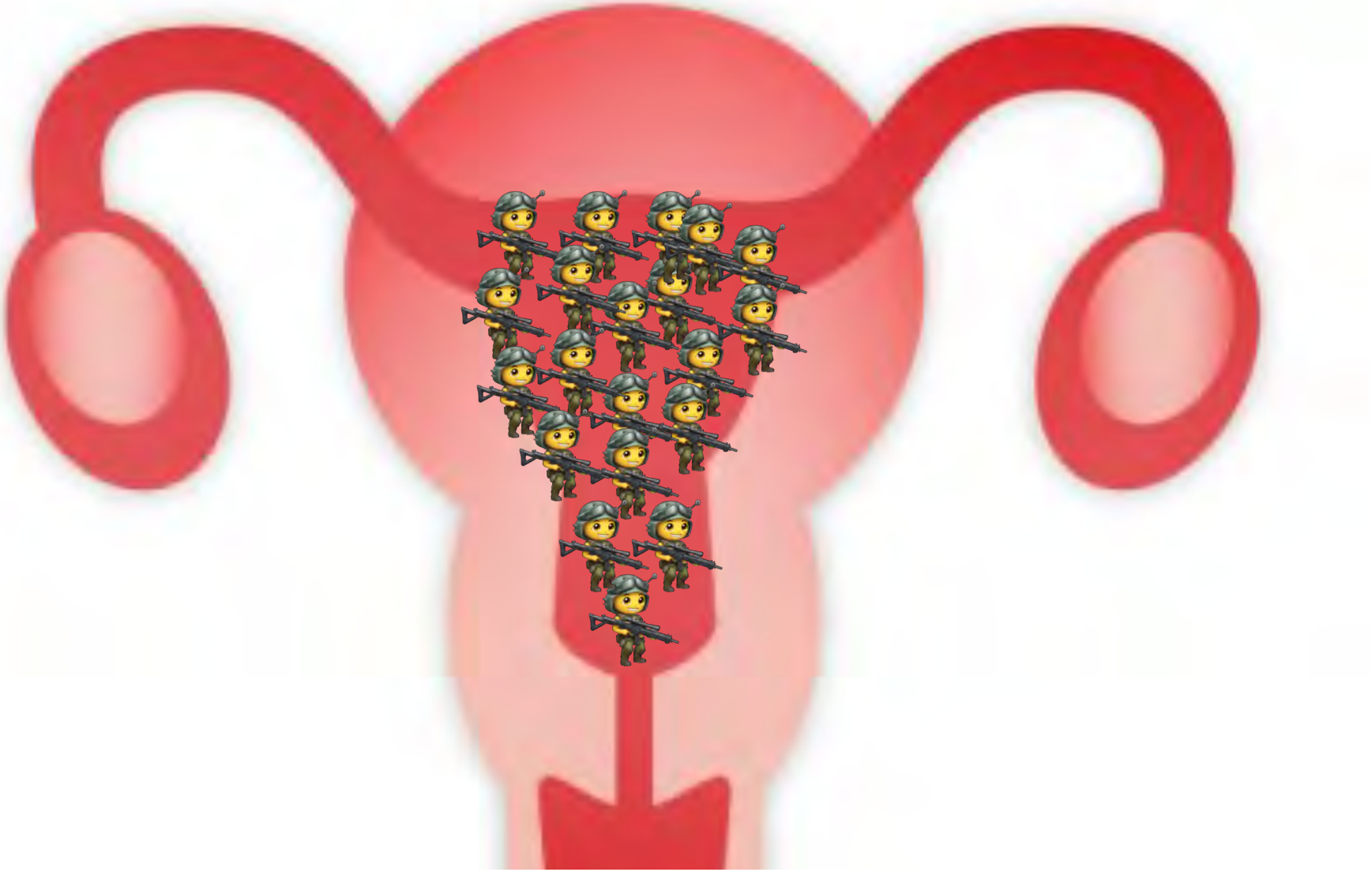
Normal NK Cell Levels:

- NK cells constitute **10-20% of cells** in the mid-luteal endometrium.
- Normal levels suggest a healthy immune environment.

Elevated NK Cell Levels or Activity (above 20):

- May indicate an overactive immune response.
- Associated with:
  - Recurrent miscarriage.
  - Implantation failure.
  - Chronic inflammation in the uterus.
  - Insufficient uNK cell activity can impair placental development.

uNK CELLS – POSITIVE DEFENCE



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 18mm x 15mm x 3mm. A1. (FG/jo/mb) 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	

NK REPORT

HISTOPATHOLOGY OF BIOPSY MATERIAL

CLINICAL NOTES:
HMB. Infertility. Curettings and ? polyp fragments.

MACROSCOPIC DESCRIPTION:
(1) "Polyp fragments" - a small amount of haemorrhagic in aggregate 25mm x 20mm x 3mm. A1.
(2) "Curettings" - a moderate amount of haemorrhagic tissue in aggregate measuring 30mm x 25mm x 8mm. A2. (FG/jo/jo)

MICROSCOPIC DESCRIPTION:
(1), (2) The sections consist of endometrium composed of well developed early to mid secretory endometrial glands within a normal stroma consistent with secretory endometrium post ovulatory day 4-5. Some fragments have a polypoid architecture, however, a true endometrial polyp is not seen. There is no evidence of endometritis or hyperplasia.

DIAGNOSIS:
UTERINE CURETTINGS - FOCALLY POLYPOID NORMAL EARLY SECRETORY ENDOMETRIUM.

Dr Glenn Hocking

SUPPLEMENTARY REPORT:

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.

Dr Maxine Scelwyn

uNK 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

HOW uNK CAUSE MISCARRIAGE

Overactivity:
High levels of cytotoxic (killer) activity by uNK cells attack the embryo, leading to immune rejection.

Poor Placental Development:
Insufficient or excessive uNK cell activity disrupts trophoblast invasion, a key process for placenta formation.

Inflammation:
Excessive inflammatory cytokines released by overactive uNK cells create a hostile environment for implantation and early pregnancy.

Miscarriage Outcomes:
Commonly associated with recurrent pregnancy loss (RPL) or unexplained infertility.

Repeated IVF failure of PGT-A Euploid Embryos

Toxic heat + Blood stagnation (crappy blood)

POOR EMBRYOS QUALITY ACTIVATES uNK CELLS

- **Embryo Stress Signals:** Poor-quality embryos often release stress signals (e.g., damaged DNA or abnormal proteins) that uNK cells recognise as signs of potential danger.

- **Lack of Immune Privilege:** High-quality embryos have mechanisms to suppress uNK cell activation, promoting immune tolerance. Poor-quality embryos may lack these mechanisms, making them more vulnerable to immune attack.

- **Increased Cytotoxicity:** In response to stress signals, uNK cells release cytotoxic substances (e.g., perforin and granzyme) that destroy the embryo and may trigger inflammation in the uterine lining.

Adjuvant Therapies - IMMUNE SUPRESSION

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

Toxic heat + Blood stagnation (crappy blood)

My clinical observations - I could be wrong….or I could be right….what I know for sure is that people fall pregnant when I treat them

ASPRIN / CLEXANE - TCM INTERPETATION

Western Action: Blood thinners to prevent clot formation.

TCM Lens:

- **Moves Blood** to resolve Blood stasis and improve circulation.
- Helps to create smooth Blood flow in the **Chong Mai** & **Ren Mai**, ensuring proper nourishment &circulation to the reproductive system.
- **Supports Wei Qi** indirectly by ensuring smooth blood flow.
- May lead to **Blood deficiency** with long-term use.

DEXAMETHASONE / PREDNISONE - TCM

Western Action: Anti-inflammatory and immunosuppressive. Suppress immune activity in autoimmune or inflammatory conditions.

TCM Lens:

- **Clears Heat** or resolving **Toxic Heat in the Blood**,.
- **Calms Wei Qi** to reduce immune overactivity.
- **Weakens Qi and Yin** with prolonged use, potentially leading to internal dryness.

INTRALIPID - TCM INTERPETATION

Western Action: Nutritional fat emulsion to modulate NK cell activity.

TCM Lens:

- **Nourishes Yin and Blood**, supporting uterine health.
- May generate **Dampness** if the Spleen is weak, causing heaviness or bloating.

IVIG - TCM INTERPETATION

IVIG (Intravenous Immunoglobulin, 400mg/kg)

Western Action: Modulates immune system and reduces inflammation.

TCM Lens:

- **Strengthens Wei Qi**, calming hyperactive immune responses.
- **Nourishes Yin and Blood**, reducing systemic inflammation.
- Resolves **Internal Wind**, stabilising erratic immune activity.

PLAQENIL - TCM INTERPETATION

Western Action: Anti-inflammatory for autoimmune conditions.

TCM Lens:

- **Clearing Heat** and **resolving Dampness**, particularly T**oxic Heat** in the Blood
- Harmonies **Wei Qi**, calming excessive immune responses.

NALTEXONE - TCM INTERPETATION

Naltrexone (Low Dose Naltrexone – LDN)

Western Action: Modulates immune response and reduces inflammation.

TCM Lens:

- Modulating immune function could be likened to **calming the Shen**, **tonifying Qi**, and **harmonizing Yin and Yang**
- Its anti-inflammatory effects align with clearing **Heat**, harmonising the Liver, and soothing the immune system.

TACROLIMUS - TCM INTERPETATION

Western Action: Immunosuppressant for autoimmune diseases and transplants to reduce T-cell activity. Used to reduce NK cells

TCM Lens:

- **Clears Heat and Toxicity**, calming excessive immune responses.
- Prolonged use may weaken **Wei Qi**, reducing the body's defences and deplete **Kid Yin**

LMIT - TCM INTERPETATION

LMIT/LIT (Lymphocyte Membrane Immunotherapy)

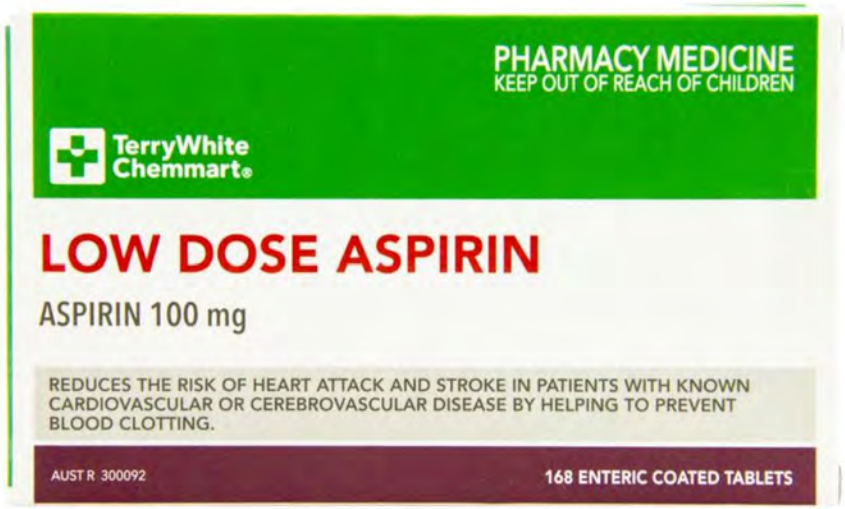
Western Action: modulates the immune system by introducing antibodies, helpful in autoimmune infertility or conditions like antiphospholipid syndrome.

Modulates maternal immune response to prevent rejection of the embryo.

TCM Lens:

- Harmonies **Wei and Ying Qi** to foster maternal-fetal connection.
- Regulates **Liver Qi** and smooths Qi flow to the **Uter**
- **Nourishing Blood and Yin** to calm the immune system
- Calms **Internal Wind**, stabilising immune hyper-reactivity.

uNK CELLS – WESTERN TX

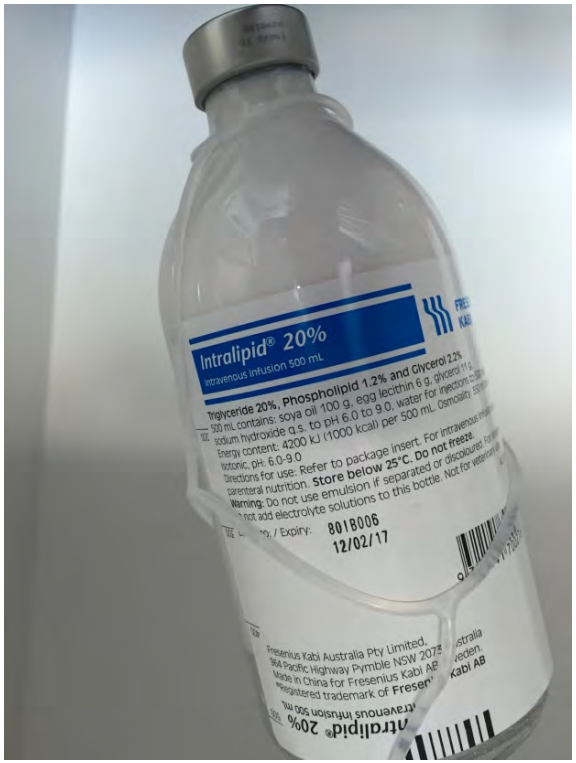


uNK CELLS – WESTERN TX

IVIG – Intravenous immunoglobulin (IVIG) is a sterile, highly purified immunoglobulin G (IgG) derived from large pools of human plasma.This is administered intravenously that binds to the surface of an embryo and acts as a shield against harmful immune response.

NOTE: It is not clear exactly how IVIG works, but studies suggest that it may reduce the amount of natural killer (NK) cells in the body, and/or may absorb or block a woman's antibodies, which are causing the body to attack the pregnancy.

uNK CELLS – WESTERN TX



Intralipid therapy – Intralipids are an intravenous emulsion made primarily from soybean oil, along with egg phospholipids, glycerin, and water.

They contain a mix of fatty acids ("good fats") that modulate the immune system by:

- Suppressing NK activity
- Balancing Cytokine Production
- Promoting Treg Cells (Regulatory T Cells)


PRESCRIPTION ONLY MEDICINE
FERRING
Menopur® 600 IU
human menopausal gonadotrophin (menotrophin)
Multidose powder and solvent for solution for injection
(600 IU/mL after reconstitution with solvent)
pur® Accessory pack
FERRING
UTROXSIG®
levothyroxine sodium 50 micrograms
PRESCRIPTION ONLY MEDICINE
KEEP OUT OF REACH OF CHILDREN
OVIDREL® for injection
Choriogonadotropin alfa (rch) 250 micrograms
Solution for injection in a pre-filled pen
For subcutaneous use
For single patient use only
CLEXANE®
enoxaparin sodium
PRESCRIPTION ONLY MEDICINE
KEEP OUT OF REACH OF CHILDREN
GONAL-f® Pen for injection
follitropin alfa (rch) 900 IU (65.52 µg) Solution for injection
900 IU/1.5 mL
For subcutaneous use
1 cartridge of solution for injection, pre-asse
20 needles for administration
UTROGESTAN 200mg
42 Vaginal Capsules
Cyram® Duo
combination therapy
amoxycillin 500mg/clavulanic acid
125mg tablets
10 tablets
Prograf® Twice daily dosing
tacrolimus 1 mg
100 immediate release capsules
astellas
Aspirin
PHARMACY MEDICINE
100mg
circadin 2mg
PRESCRIPTION
Orgalutran®
solution for injectio
ganirelix (as acetate)
MSD
CENOVIS
Folic Acid
500mcg
Dexmethasone

Centre for Infertility Solutions

LOLA Protocol with Letrozole

You will try for a spontaneous pregnancy over the next **4 months**. Please remember that Dr Nick books out 6 weeks in advance for **review consultations** so please plan ahead. Each month you will need to do the following:

When you get Day 1 of your period:

1. Call Dr. Lolatgis' Nurses on (03) 9544 2107 and make an appointment to have **Intralipid administered** intravenously at Dr. Lolatgis' rooms **around Day 10 of your** cycle.

Medications

- **Aspirin** From Day 1 of period: 100mg daily
- **Dexamethasone** From Day 1 of period: 1mg daily
- **Naltrexone** From Day 1 of period: 4.5mg daily
- **Tacrolimus** From Day 1 of period: 1mg twice daily
- **Letrozole** From Day 2 of period: 7.5mg daily for 5 days
- **Clexane Injection** From Day 14 of cycle: 40mg subcutaneous injection daily

Sexual Activity

- **On three days:** Day 12, Day 14 and Day 16 of your cycle

Continue on all medications until you have a positive pregnancy test OR you get your period.

If you get your period and are not pregnant:

Continue on the Dexamethasone, Aspirin, and Naltrexone, but stop the Clexane. Repeat the LOLA protocol from Day 1 of your new period until you have a positive pregnancy test OR you have tried the LOLA protocol for four cycles.

If you have a positive pregnancy test:

Continue on all medications. Request a Pathology Referral to have a pregnancy blood test. Call our Nurses on 03 9544 2107 for results. Once the blood test confirms a positive pregnancy (hCG level over 100), they will advise you to start Utrogestan vaginal pessaries, 200mg (1 pessary) three times daily. You will also be booked in to have another Intralipid Infusion.

Version 2: June 2024, Authorised: Medical Director

LOLA PROTOCOL WITH LETROZOLE CALENDAR

Day 1 of period	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
2	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Letrozole		
3	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Letrozole		
4	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Letrozole		
5	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Letrozole		
6	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Letrozole		
7	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
8	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
9	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
10	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Intralipid		
11	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
12	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
13	Dexamethasone	Aspirin	Naltrexone	Tacrolimus			
14	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
15	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
16	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
17	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
18	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
19	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
20	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
21	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
22	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
23	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
24	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
25	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
26	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
27	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane		
28	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane	Preg test (call nurses for official blood test)	If period comes, go back to Day 1 & start again
29	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane	Utrogestan	
30	Dexamethasone	Aspirin	Naltrexone	Tacrolimus	Clexane	Utrogestan	Intralipid (if preg)

Start Augmentin Duo 1 tablet twice per day for 5 days.

READY FOR THEATRE. DO NOT TAKE FSH THE NIGHT OF YOUR TRIGGER UNLESS INSTRUCTED

OVIDREL 250 or 500 (~~36 hours prior to~~ egg collection)	DATE	TIME
PREGNYL 10,000 (36 hours prior to egg collection)	DATE	TIME
DECAPEPTYL 200 *2 injections* (35 hours prior to egg collection)	DATE	TIME
SYNAREL 4 SPRAYS (35 hours prior to egg collection)	DATE	TIME

If you have insufficient or no Ovidrel/Pregnyl/DecapeptylSynarel on the night of your trigger please see your "Important Cycle Information Sheet" regarding emergency replacement Ovidrel/Pregnyl/DecapeptylSynarel

Please do not eat or drink anything for at least six hours prior to egg collection.

DAY OF EGG COLLECTION

Admission to hospital: Date ..... Time .....

Egg Pick Up: Day 0 Date ..... Time .....

[redacted]

DAY AFTER EGG COLLECTION

Fertilisation results and transfer details are available from nursing staff:

- Monday to Friday 2.00pm to 4:00pm
- Saturday 1:00pm to 2:00 pm

Please commence the gel or pessaries on DAY 1 after your egg collection unless otherwise directed. (egg collection = day 0)

	DOSE	DATE		
CRINONE VAGINAL GEL				
ENDOMETRIN PESSARIES				
PROGESTERONE PESSARIES				
PREGNYL BOOSTER	1,500	DAY 3	DAY 6	DAY 9
UTROGESTAN	200	Three times per day:		

+ Clexane 40mg x 1 every Evening
+ Aspirin 100mg daily AM or PM.
+ Continue Dexa, Naltrexone, Folic Acid

* 2 days prior to transfer start Tacrolimus 3mg daily
* Fragmin "Glue" 1-5 days prior to transfer with Dr. Lolagis Book in with Nicki's rooms

DAY OF EMBRYO TRANSFER – x 2 on Day 3.

Embryo transfer is usually performed under ultrasound guidance.

No sedation You will require a full bladder; on the morning of your transfer empty your bladder then **please drink 2 normal size glasses of water** 2 hours prior to your admission time. Do not empty your bladder until after the transfer.

Sedation /anaesthetic Patients requiring sedation for transfer are required to fast from midnight the night before. **Do not** drink 2 glasses of water.

PLEASE MAKE AN APPOINTMENT WITH YOUR IVF SPECIALIST FOR 2 WEEKS AFTER YOUR PREGNANCY TEST.

OVARIAN HYPERSTIMULATION SYNDROME

"Ovarian Hyperstimulation Syndrome" may present a few days after embryo transfer. Less than 1% of patients experience severe symptoms while up to 5% experience symptoms that can be unpleasant. ***(For more information read "Possible Risks of Infertility Treatment" in your patient information).***

Symptoms may include Nausea, vomiting, diarrhoea, bloating, weight gain, lower abdominal pain, and shortness of breath.

Important Inform your IVF Nurse or IVF Specialist if you experience any combination of the above symptoms. If out of hours, and symptoms involve shortness of breath, increased pain or bloating and decreased urine output or if you are concerned attend the Emergency department and ask them to inform your IVF Specialist.

No Neurofen

Paracetamol can be taken four hourly for pain at any time during your treatment cycle. Please check with a pharmacist regarding any other medications.

If you have any queries please do not hesitate to contact your IVF nurse or IVF Specialist

We wish you well throughout your treatment cycle.

Until preg test continue Dex 4
Naltrexone
Tacrolimus
Utrogestan
Clexane
Aspirin
Folic Acid
melatonin
? Thyroxine

Dr. Lolagis Pager [redacted]

Call NL rooms to book ① Intralipid appointment ② 6 week follow up appointment

ANTAGONIST INSTRUCTIONS

Please ensure consent forms are completed and returned to your nurse prior to commencement of cycle

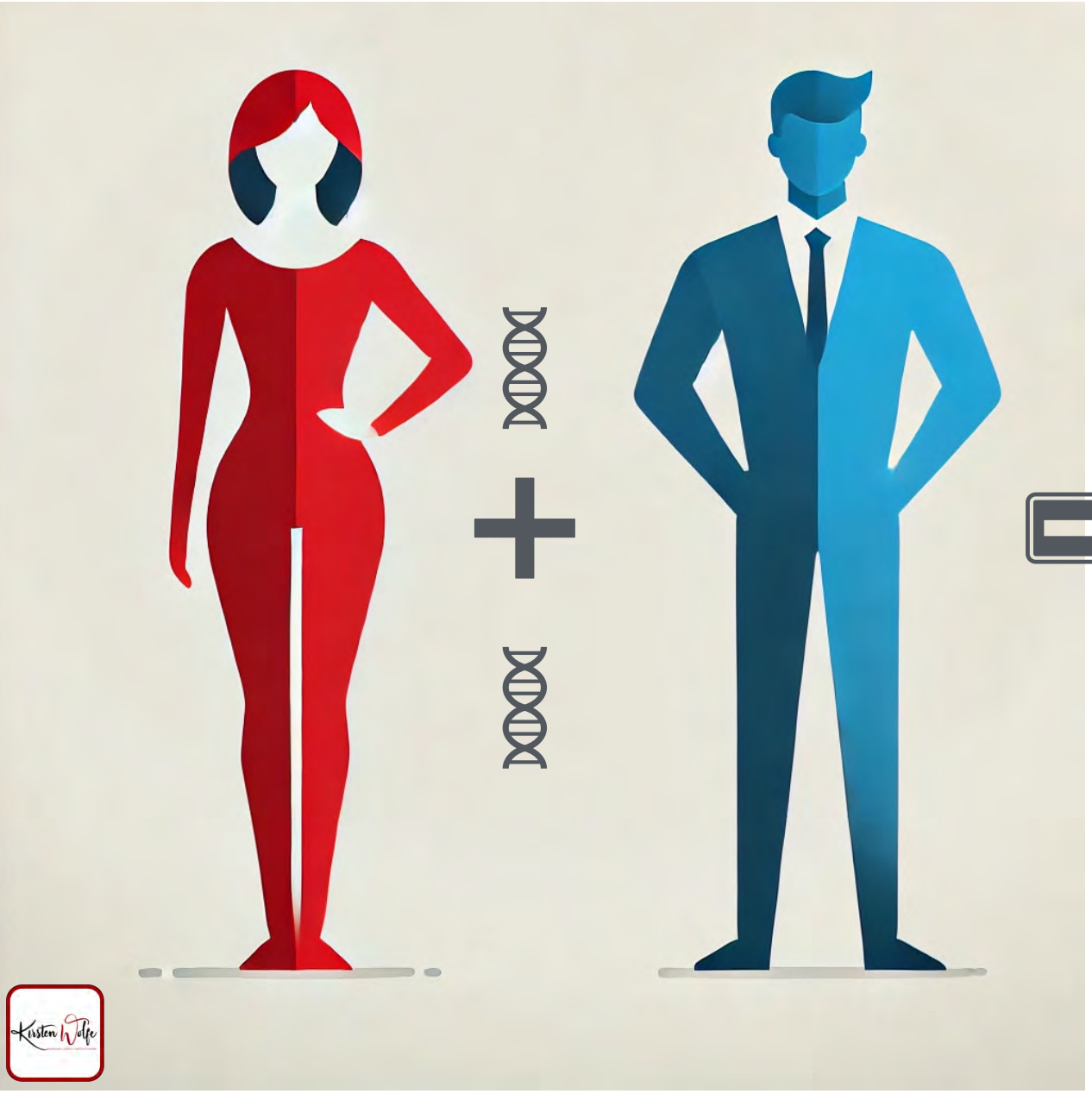
Day One: (full flow by 6pm) ...../...../..... Contact the clinic 8.30-4.30 Monday to Friday only.
If your period commences on Saturday or Sunday, commence your medication as instructed and call on the following Monday.

Day Two: ...../...../..... Commence FSH injections

DATE	DAY of Cycle	**FSH** Same time each PM Gonal F 300 ~~Puregon~~ Menopur 150 ~~Pergoveris~~ ~~Bemfola~~ (6-11PM)	**Antagonist** Same time each AM ~~Cetrotide~~ ~~Orgalutran~~ (6-11AM)	**Other Medications**	Blood test	Ultrasound
	1	NIL	NIL	- Call nurses + Nicki's rooms		
	2	Start PM ✓	NIL	+ Dexamethasone + Naltrexone		
	3	✓	NIL	1mg (AM) (Halves)	4.5mg (Night)	
	4	✓	NIL			
	5	✓	Stop AM ✓			
	6	✓	✓			
	7	✓	✓			
	8	✓	✓			
	9	?	✓	Intralipid	✓	✓
	10					
	11					
	12					
	13					

Further instructions..... The results of blood tests and ultrasounds will be available between 2pm and 4:00pm the same day Monday to Friday and between 1:00pm and 2:00pm Saturdays and Public Holidays. **Please ring if you have not been contacted**.

Medications are to be continued until advised to stop.



DQ ALPHA

LOLA protocol

You and your partner have been tested for the DQ Alpha Gene.

Each individual has two DQ Alpha Genes, one derived from their mother and one derived from their father. Most successful reproductive partnering involves two individuals with differing DQ Alpha Gene expressions.

If you share these genes then repeated implantation failure and recurrent pregnancy loss can occur.

You are a **PARTIAL** match for the following genes: 01:01 / 01:01

Because of this sharing you are at increased risk of unexplained infertility, recurrent implantation failure and recurrent pregnancy loss.

When the embryo is transferred into the uterus it is not protected by the host. The host sees the embryo as self and not non-self and is attacked by the host's immune system as if it is a bacteria virus or cancer cell.

It is attacked by Natural Killer Cells and Cytokines leading to failed implantation or pregnancy loss.

I enclose information regarding the Lymphocyte Membrane Immunotherapy Treatment (LMIT) that I use for patients with DQ alpha gene compatibility. I will discuss this further with you when I next see you.

Please do not commence any IVF treatment until you have made an appointment to see me to discuss the DQ alpha gene compatibility and to organise treatment for this.

Yours sincerely,

DR NICK LOLATGIS

DQ Alpha Matching and Recurrent Miscarriage

Human Lymphocyte Antigen DQ (HLA DQ) is a test that indicates a ***predisposition*** to alloimmune response between the partners.

DQ Alpha Genes
The DQ Alpha gene is part of the immune system, helping it recognise tissues as "self" or "foreign." Each person inherits one DQ Alpha gene from each parent, resulting in two variants.

If a couple shares identical or highly similar DQ Alpha genes, the mother's immune system may struggle to recognise the embryo as "foreign."

Lack of Immune Tolerance
During pregnancy, the immune system must balance protecting the mother and tolerating the embryo. If the DQ Alpha genes between the parents match, the mother's immune system may not recognise the embryo as unique, failing to activate the protective immune responses needed for a healthy pregnancy.

DQ Alpha Matching and Recurrent Miscarriage

Activation of Immune Cells
Without proper immune recognition, immune cells like Natural Killer (NK) cells or cytotoxic T cells may see the embryo as a threat. This can trigger an immune attack, leading to inflammation and damage to the developing placenta.

Poor Placental Development
The immune response disrupts placental growth and function. Inadequate blood flow and nutrient delivery to the embryo may result, making it difficult for the pregnancy to progress.

Chronic Recurrent Losses
If DQ Alpha matching is present and untreated, repeated pregnancies may fail due to the same immune response.

LMIT - TCM INTERPETATION

LMIT/LIT (Lymphocyte Membrane Immunotherapy)

Western Action: modulates the immune system by introducing antibodies, helpful in autoimmune infertility or conditions like antiphospholipid syndrome.

Modulates maternal immune response to prevent rejection of the embryo.

TCM Lens:

- Harmonies **Wei and Ying Qi** to foster maternal-fetal connection.
- Regulates **Liver Qi** and smooths Qi flow to the **Uter**
- **Nourishing Blood and Yin** to calm the immune system
- Calms **Internal Wind**, stabilising immune hyper-reactivity.

HOW IS YOUR HEART