

# My Favorite Acupuncture Fertility Protocols



Presented By  
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# Outline

How Acupuncture optimizes Fertility

Acupuncture protocols for:

- Unexplained Infertility
- PCOS
- Stress
- Blood flow
- Thin lining
- Male infertility
- IVF

LLLT (Cold Laser) for severe infertility

# Acupuncture plus...

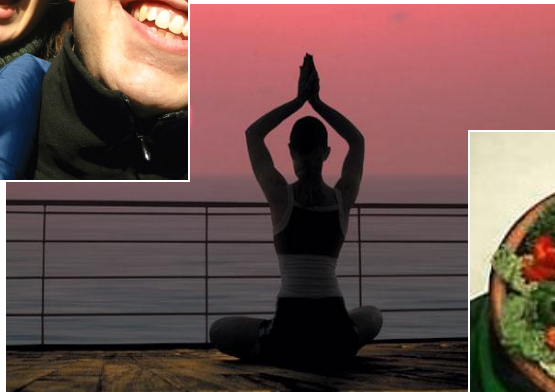
*Smiles*



*Nature*



*Herbs,  
Vitamins &  
Minerals*



*Yoga  
Exercise*



*Balanced,  
Healthy Diet*



*Meditation*

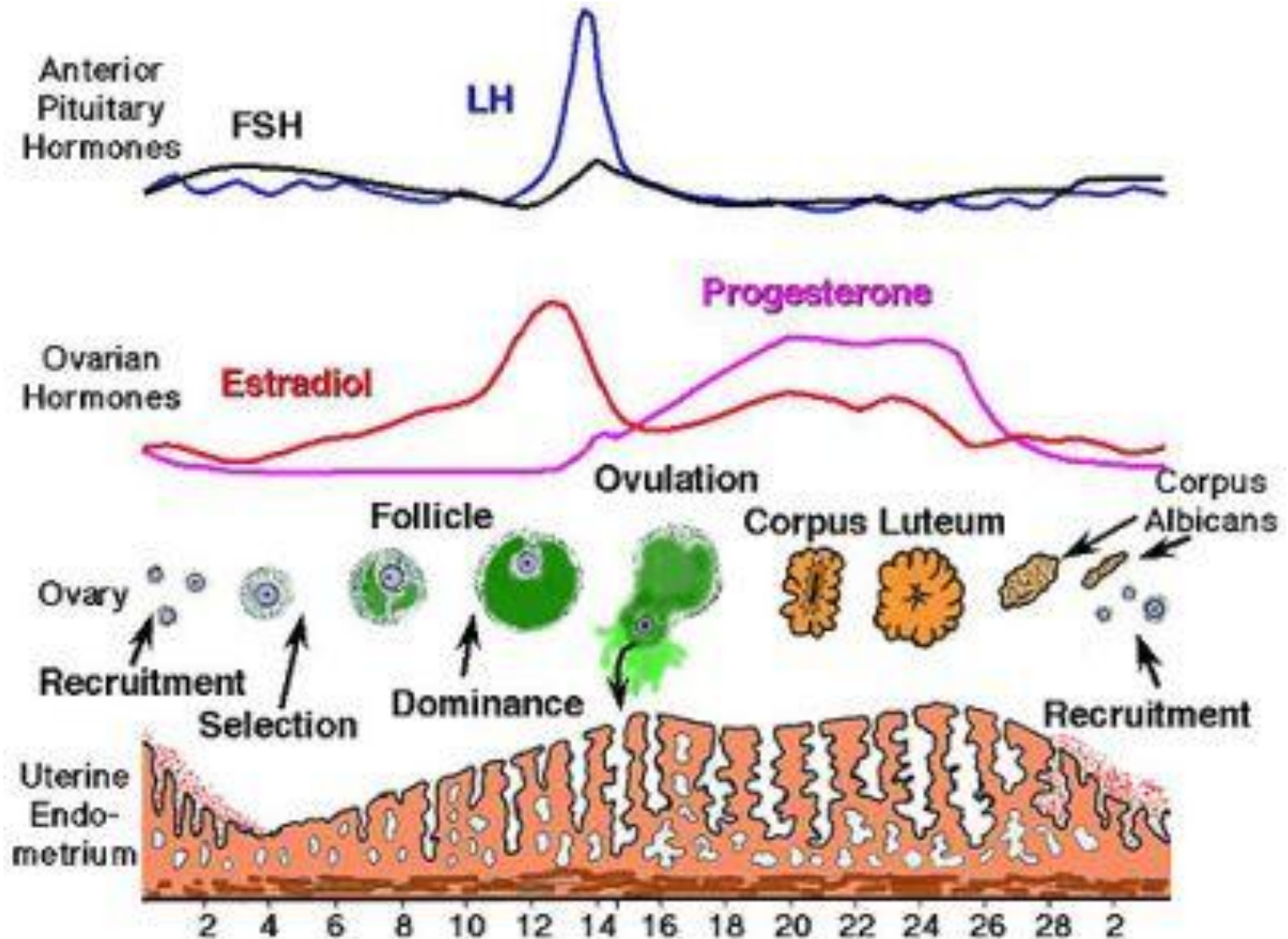
# TCM approach for treating infertility



Regulate the menstrual cycle



# Monthly Rhythm

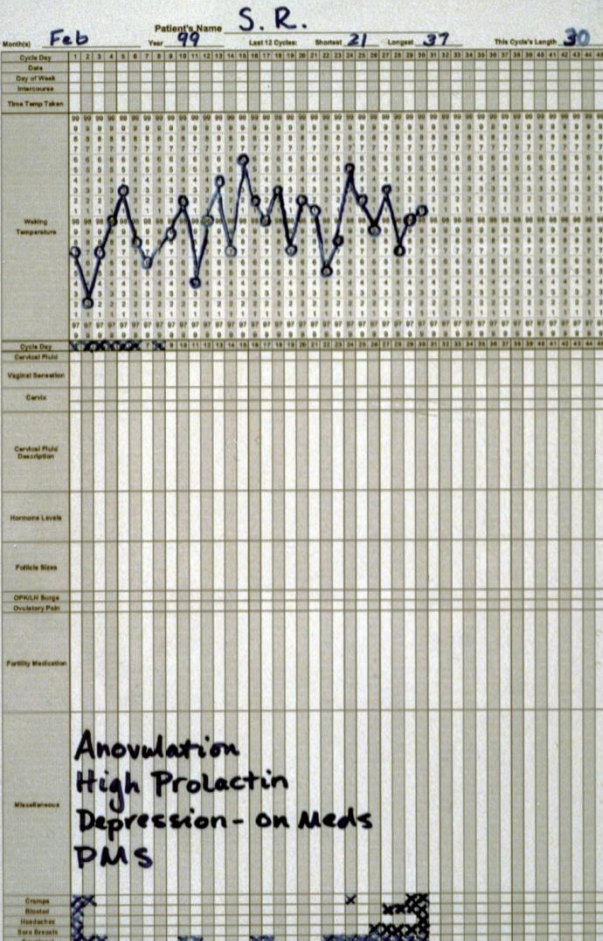


# Natural rhythms & cycles

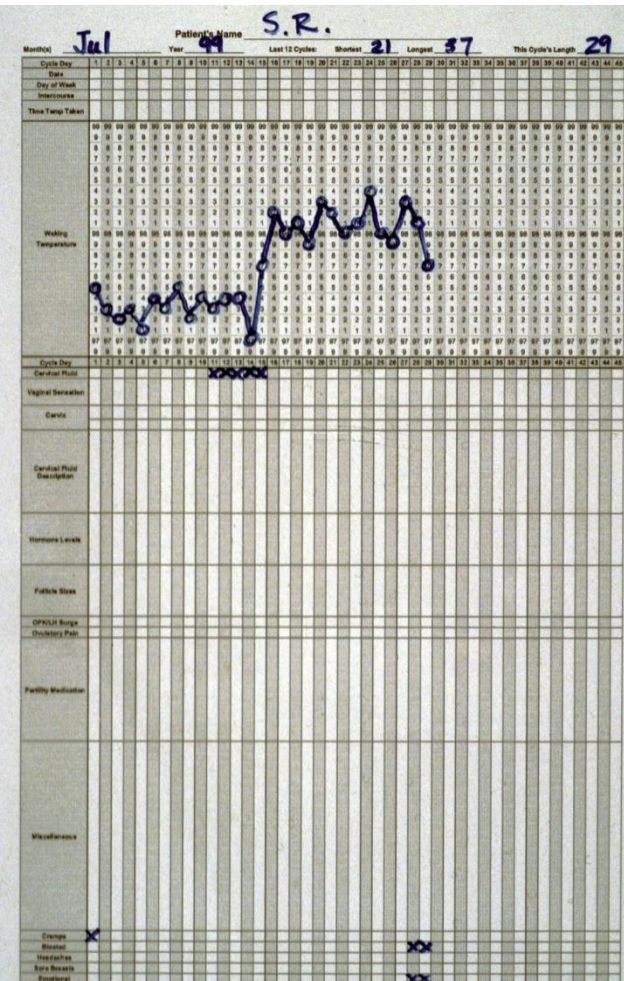
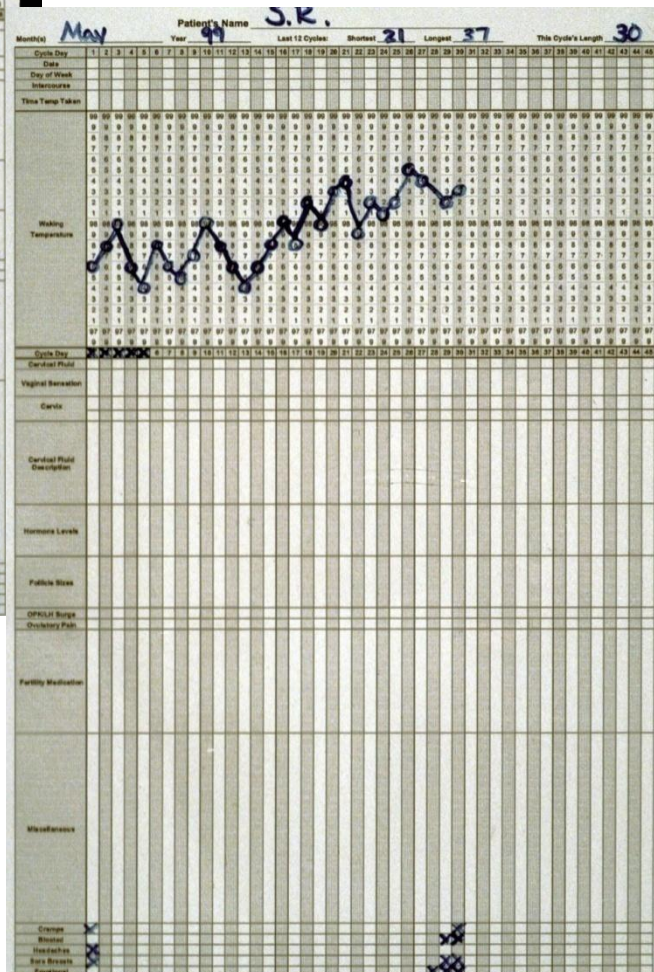


Chinese medicine's definition of a healthy  
menstrual cycle

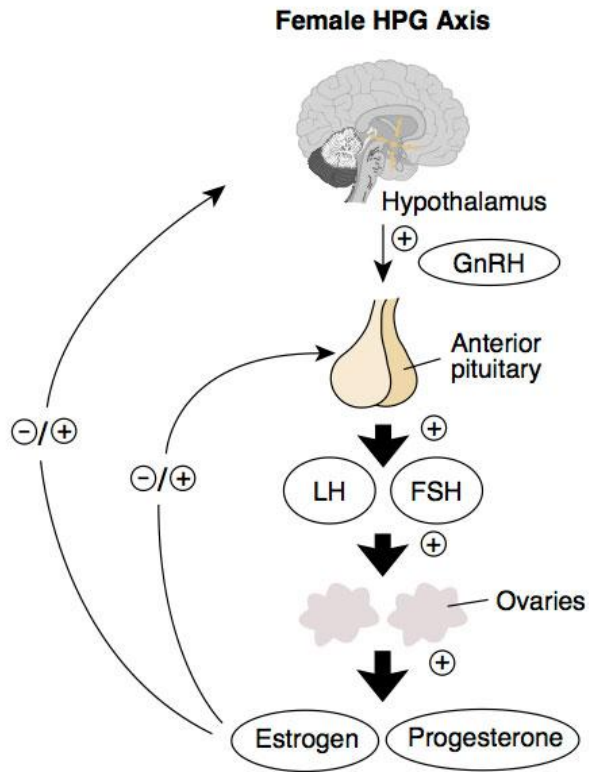




# Regulating the cycle



# Acupuncture regulates the hypothalamic-pituitary-ovarian axis



# Acupuncture for unexplained infertility

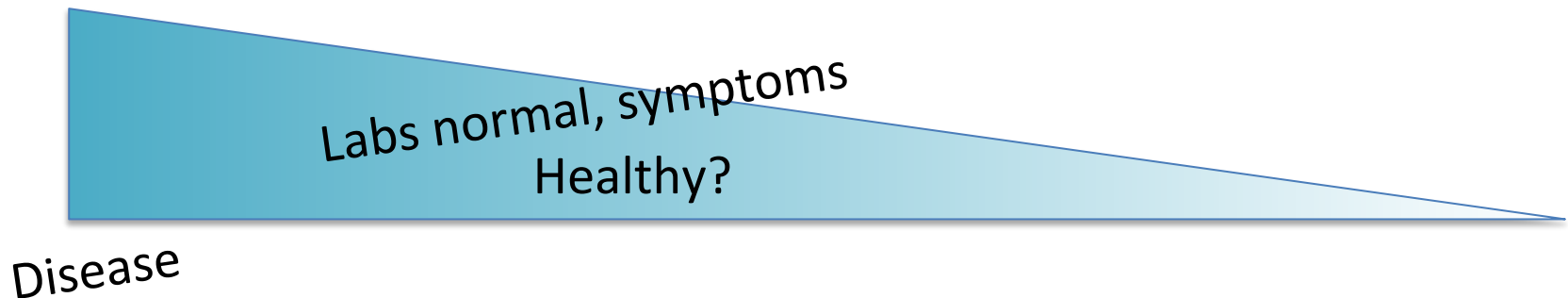


Our philosophy is a spectrum model of health

Health = Absence of Disease?

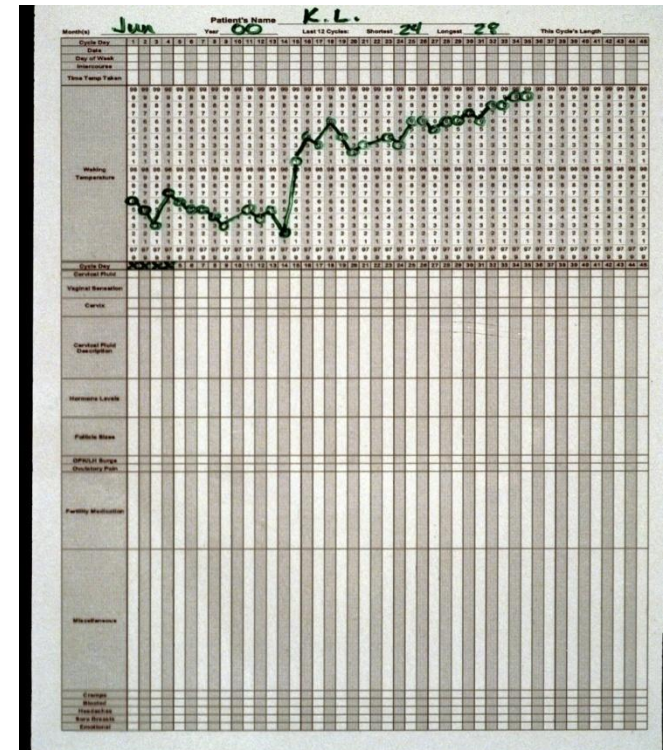
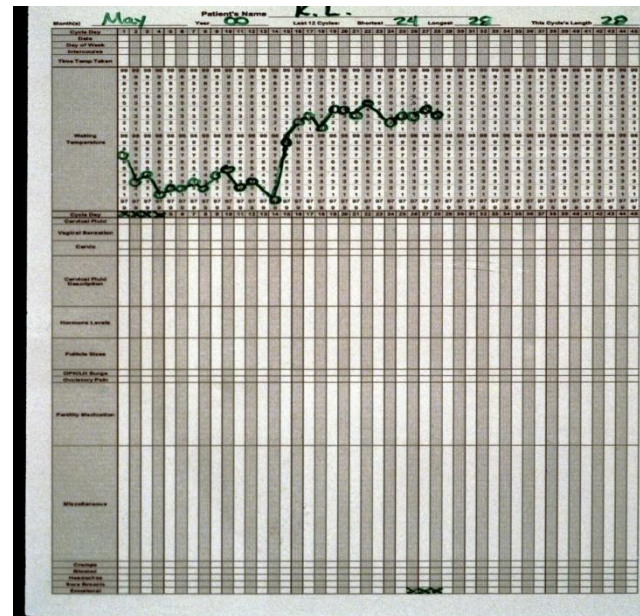
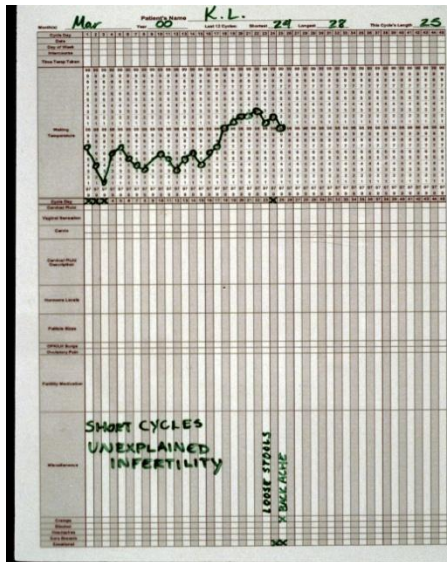
Health = Vitality

VITALITY!

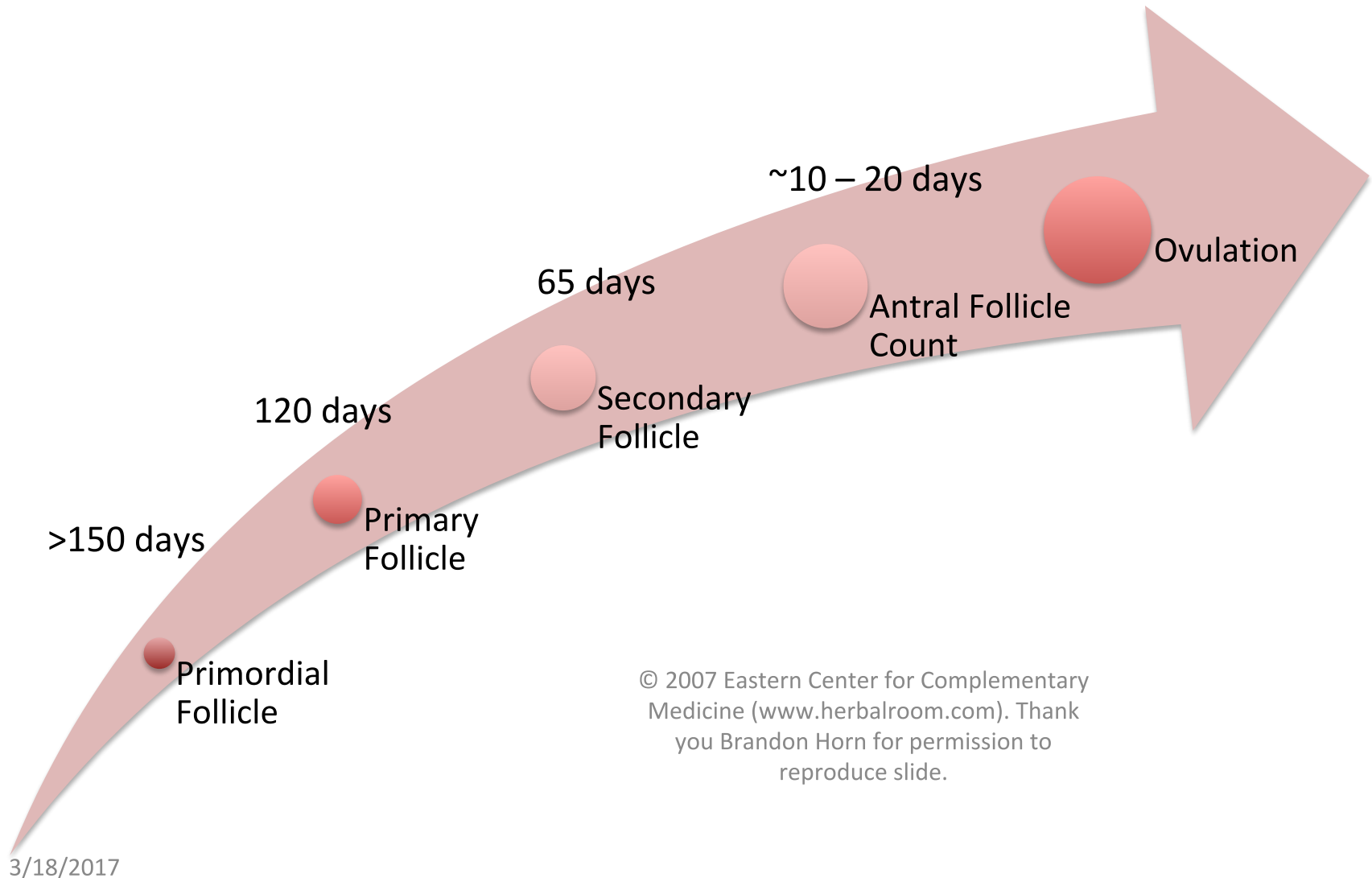




# Unexplained – BBT



# Follicular genesis > 260 days





# Unexplained Infertility

This was not “unexplained” according to Chinese medicine pattern diagnosis

- Age 36
- Cold & cold extremities
- Labs normal including thyroid
- Delayed ovulation
- PMS
- Menstrual pain
- Thin

Moxa ST-36, Moxa Ren 4-6 area,  
Moxa BL-23, BL-20, DU-4

Patient homework:

Moxa ST-36 and Ren 4

10 min each point twice per day



# Unexplained ...



# ... Explained through the lens of TCM

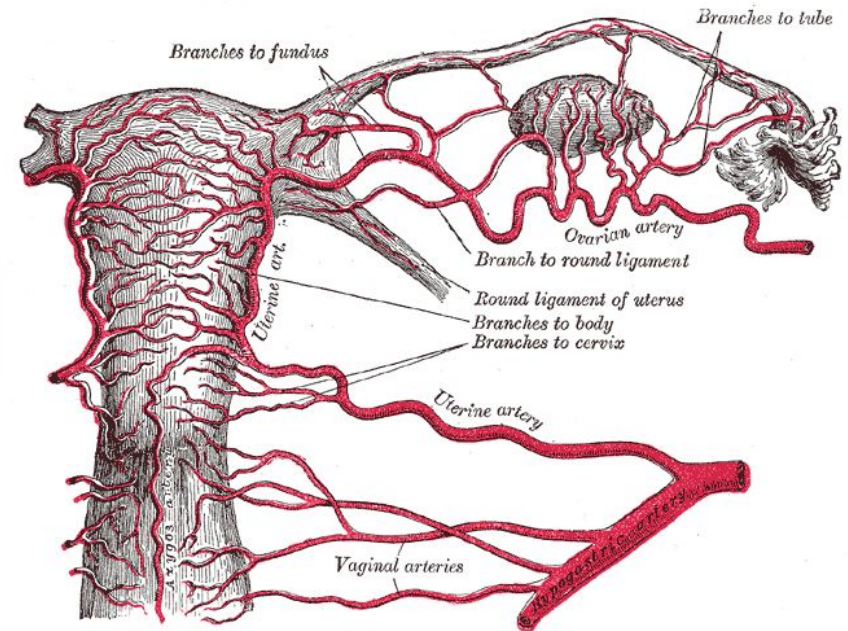
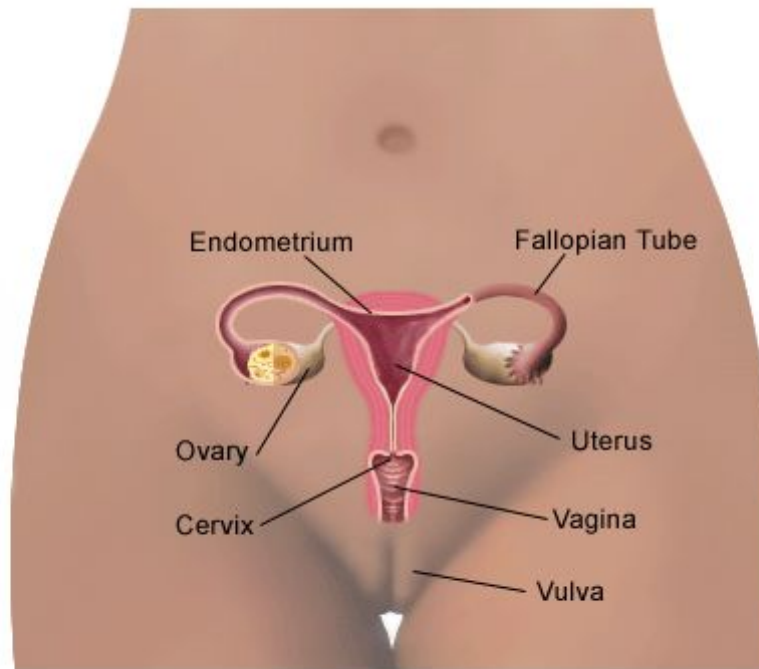


# Acupuncture For Infertility

# Acupuncture Optimizes Fertility by...

1. Increases blood flow to reproductive system
  - Ovaries
  - Uterine lining
2. Reducing stress
3. Regulate hormones
4. Improves sperm quality and quantity
5. Increases live birth rates for ART
  - (IVF/FET/Donor egg cycles)

# Acupuncture improves ovarian and uterine blood flow



Ng E H et al Fertil Steril. 2008 Jul;90(1):1-13.  
Fertility and Sterility

Reduction of blood flow impedance in the uterine arteries of infertile women with electro-acupuncture.  
Stener-Victorin E, et al Hum Reprod 1996; 11:1314-1317.  
Human Reproduction

# Acupuncture for blood flow

## **Protocol # 1**

- BL-23 to BL-28 and BL-57 to SP-6
  - EA 2hz and 100hz
  - 2 acupuncture treatments /week for 8 weeks

## **Protocol # 2**

- Abdomen: Ren 3 to Ren 6 and ST-29 to ST-29
  - EA 2hz
- Legs SP-9 to SP-6 EA 2hz and ST-36 (No EA)
- Hands: LI-4 no EA

30 minutes and 2 treatments/week

# Acupuncture for Thin lining

- Use stener Victorin blood flow protocol #2 and #1

Or

- Yu lining protocol
  - Week one – 2 trx in the week and at least 48 hours between treatments
  - Week two – 3 trx and can be every other day or daily
  - Ren 4, 6, LI-10, KD-3, SP-6, 10, ST-36
  - Needle moxa on Ren 4, 6 after EA
  - EA 10hz KD-3(L) to Ren 4 and KD-3 (R) to Ren 6

1. <http://www.prodseminars.net/product/acupuncture-strategies-dramatically-improve-ivf-success>  
2. <http://www.prodseminars.net/product/treating-complex-gynecological-conditions-evidence-based-acupuncture>



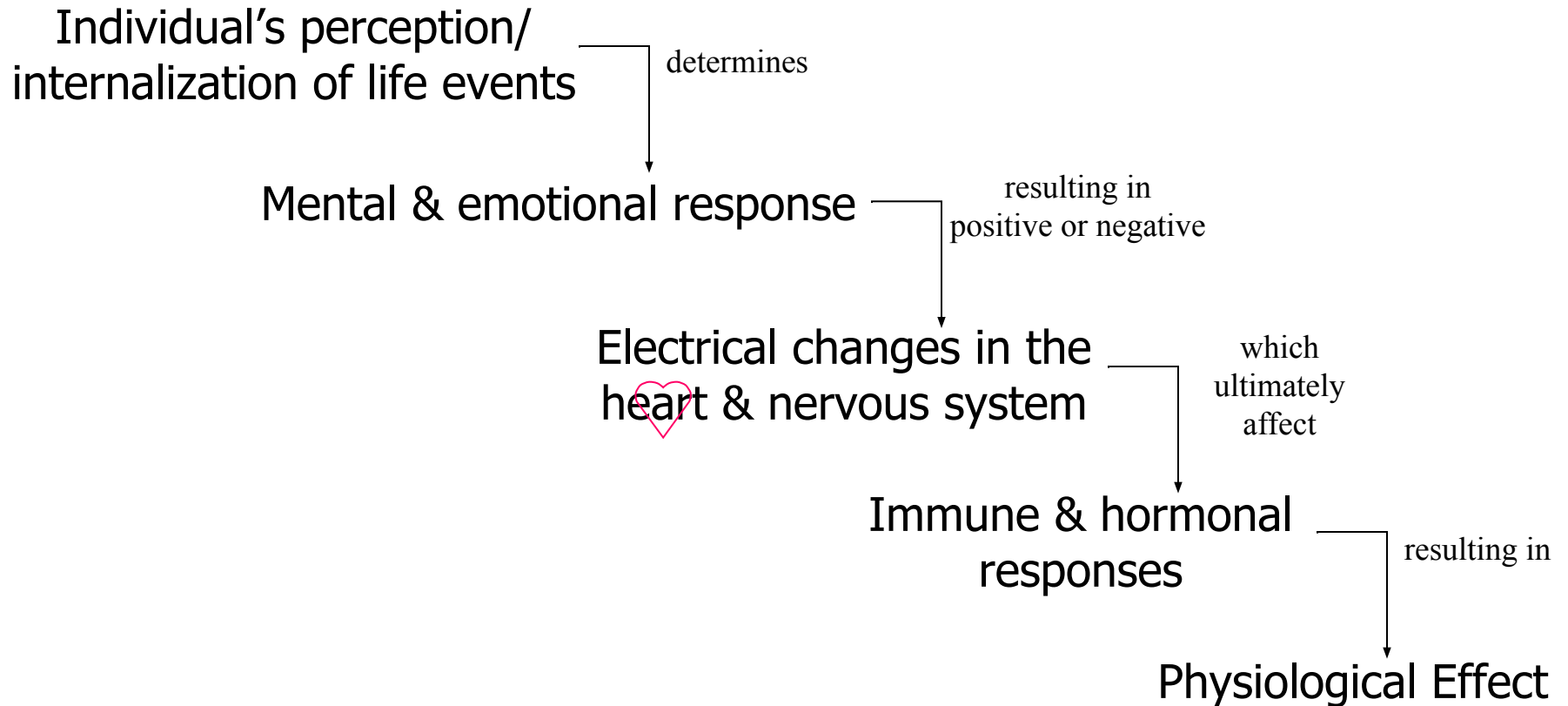
# Distress and fertility



Reduced blood flow \* Interfere with ovulation \* “block” implantation



# Effects of mental/emotional stressors



# Physiological impact of dis-stress

- Reduces blood flow to reproductive organs
- Impacts HPA
- May disrupt HPO
- Quality of life
- IVF drop out from emotional and not financial reasons

## Subjective Measurements

- Questionnaires

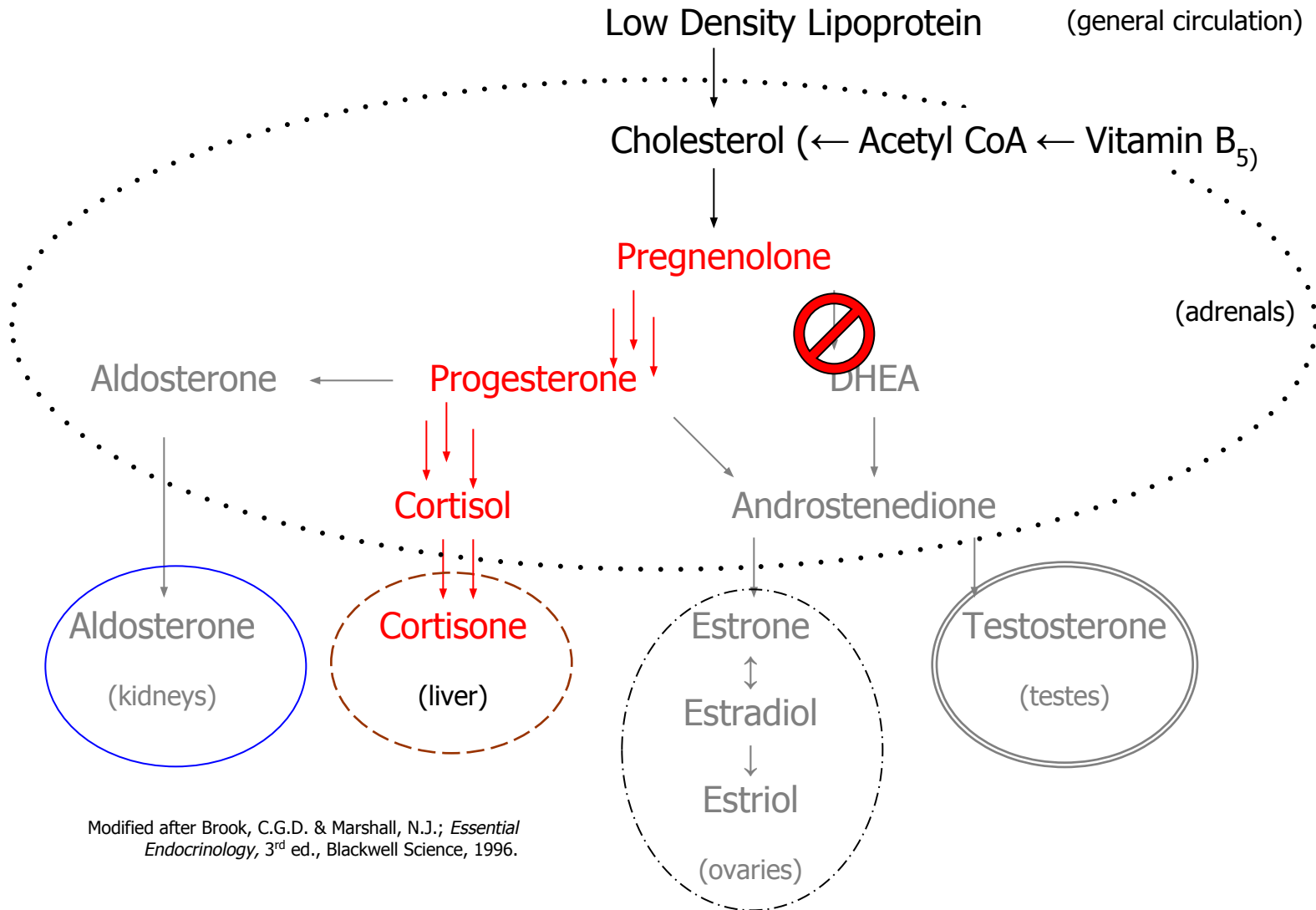
## Objective Measurements

- Salivary alpha amylase
- Sympathetic tone (LF/HF) using Heart Rate Variability (HRV)
- Color Doppler – uterine blood flow

[Psychoneuroendocrinology](#), 2006 Jan;31(1):49-58. Epub 2005 Jul 5.

[Fertility and Sterility](#): [Volume 95, Issue 7](#), Pages 2184-2189, June 2011

# Pregnenolone Steal



Higher levels of stress as measured by salivary alpha-amylase are associated with a longer time-to-pregnancy (TTP) and an increased risk of infertility



Oxford Journals Medicine & Health Human Reproduction Volume 29, Issue 5 Pp. 1067-1075

**Preconception stress increases the risk of infertility: results from a couple-based prospective cohort study—the LIFE study**

C.D. Lynch<sup>1,\*</sup> R. Sundaram<sup>2</sup>, J.M. Maisog<sup>2</sup>, A.M. Sweeney<sup>3</sup> and G.M. Buck Louis<sup>2</sup>

Stress reduces conception probabilities across the fertile window: evidence in support of relaxation

Stress significantly reduced the probability of conception each day during the fertile window, possibly exerting its effect through the sympathetic medullar pathway.

**Fertility and Sterility**

[Volume 95, Issue 7](#) , Pages 2184-2189, June 2011

## **Chronic stress:**

- decrease pelvic blood flow/fallopian tube movement
- resulting in poor egg nourishment and transportation.

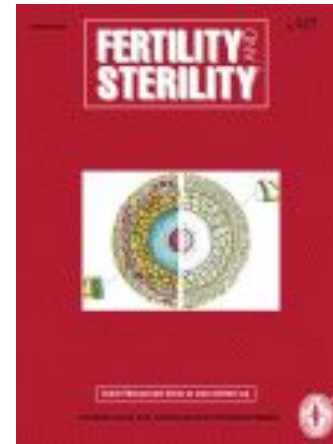


## **Acupuncture**

- release the feel good endorphins
- increase blood flow to the reproductive organs
- benefits sub-fertile women trying to conceive naturally or through IVF.

# The Role of Acupuncture in the Management of Sub-fertility

- Another review of the literature from a group in Hong Kong concludes that the positive effect of acupuncture in the treatment of subfertility may be related to the central sympathetic inhibition by the endorphin system, the change in uterine blood flow and motility, and stress reduction.



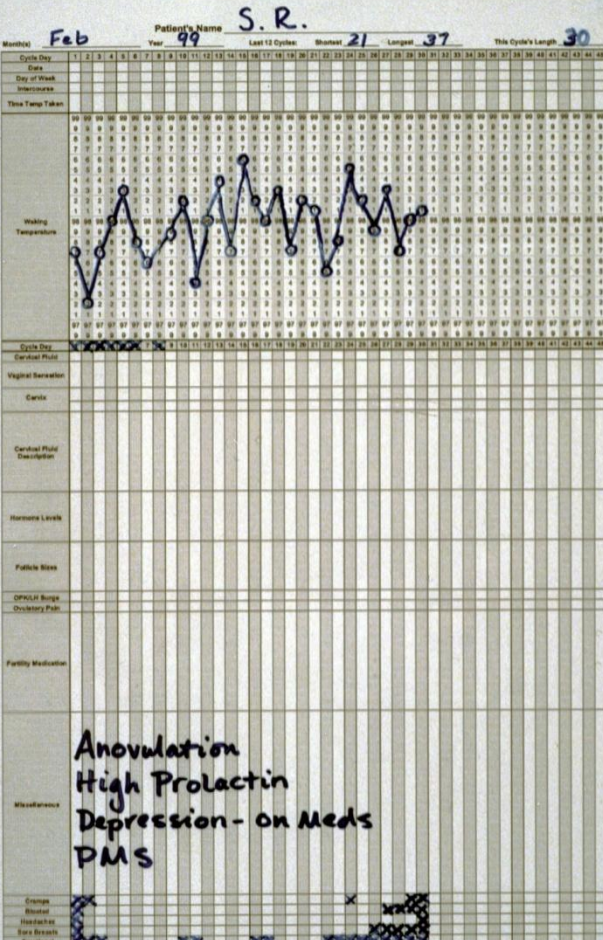
Ng E H et al Fertil Steril. 2008 Jul;90(1):1-13.  
Fertility and Sterility

# Acupuncture & Heart Rate Variability (HRV)

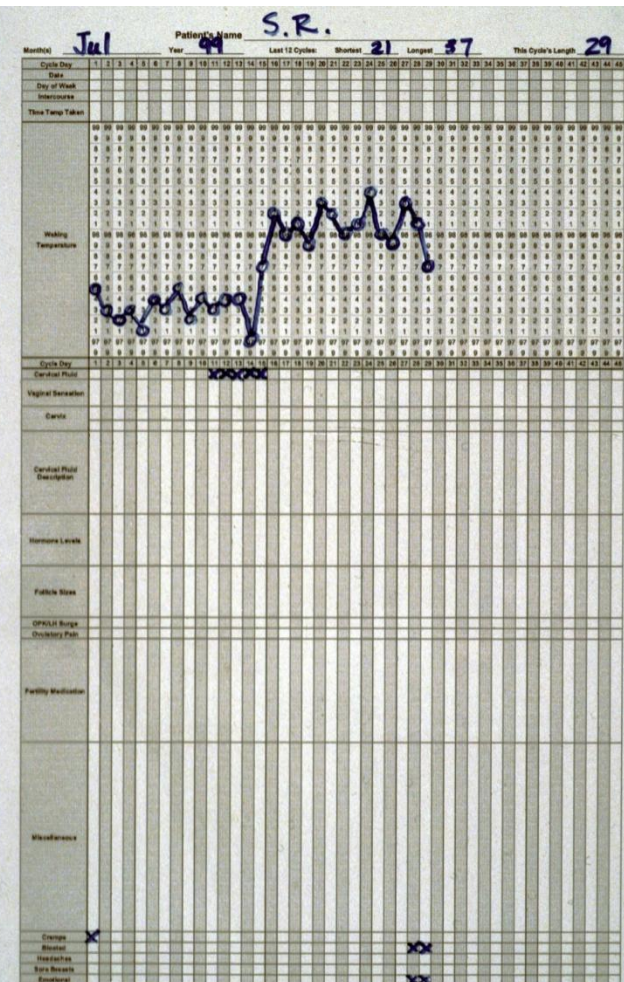
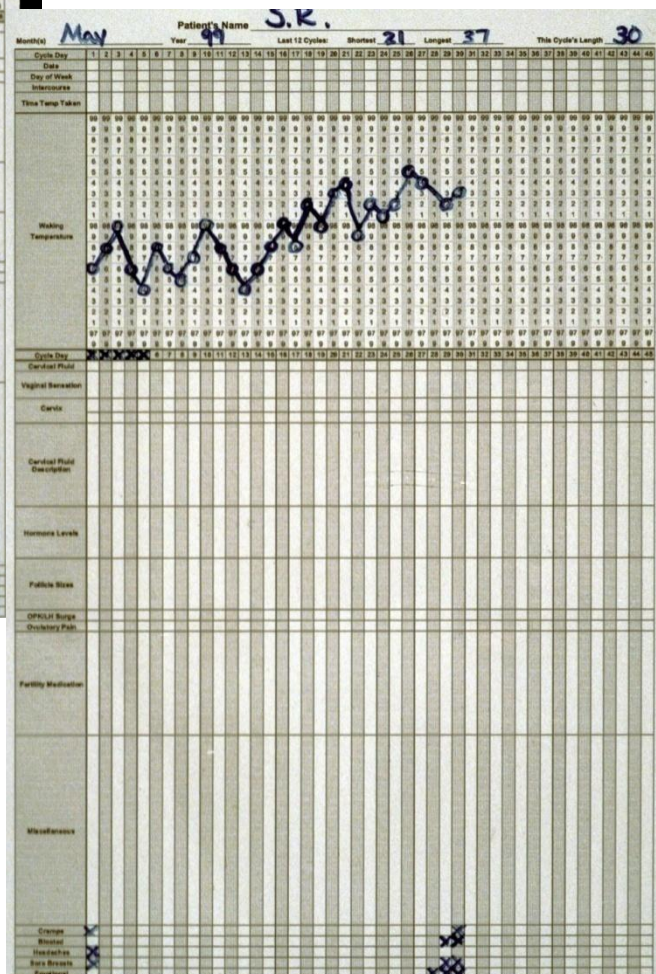
autonomic response as measured by heart rate, LF (low frequency portion of HRV) and LF/HR (low frequency to high frequency ratio-a common measure of stress response)

- **Conclusions:** In this study, the correlation between vagal enhancement (decrease in LFR/HFR) during acupuncture treatment and positive response to acupuncture was supported
- we found that the EA applied on BL15 could induce a significant increase in the normalized high frequency power (nHFP) component of HRV and PRV, as well as a significant decrease in the normalized low frequency power (nLFP) part ( $p < 0.05$ ). Moreover, both the heart rate and pulse rate were reduced in the analysis of the time domain of ECG and PRV. Furthermore, most of the SCR values at acupoints were decreased after stimulation. **These results also indicate that the stimulation of BL15 by EA could cause relaxation, calmness and reduce feeling of tension or distress.**
- **EA of ST 36 and PC 6 can suppress CRD-induced increase of MAP, HR and LF/HF, suggesting beneficial effects of EA in relieving visceral pain and mediating autonomic nerve system**
- The high and low frequency power of FFT analysis of heart rate was increased and decreased, respectively; **indicating that the parasympathetic nerves were activated and the sympathetic nerves were inhibited.** The analysis of the power spectrum of EEG showed that the number of low frequency waves was increased after acupuncture stimulation. **Therefore, acupuncture on either Sishencong or Shenmen might calm the mind, slow down the heart rate, and activate the parasympathetic nerves.**





Stress: see-saw BBT



# Support for acupuncture related to fertility stress

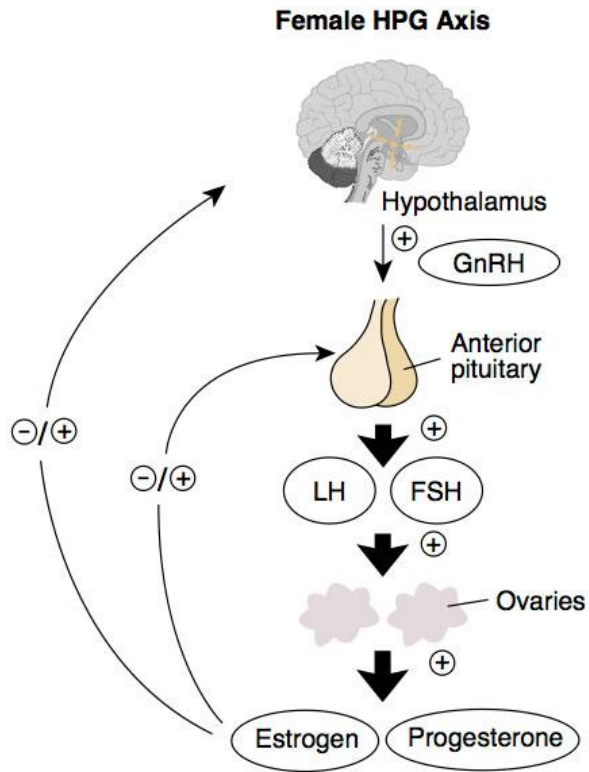
- This qualitative study found that most women who had acupuncture as an adjunct to IVF treatment reported increased well being, reduced anxiety and an increase in capacity to cope with the stresses of IVF and infertility treatments



Smith C and De Lacey S, 2008 In press  
FSA conference 2008

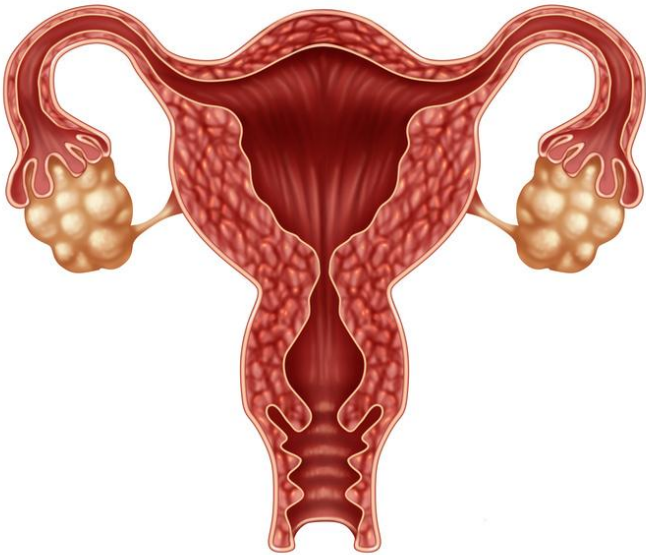
# Acupuncture regulates Hormones

## HPO Axis





# Polycystic Ovarian Syndrome (PCOS)



Common symptoms associated with PCOS

- Trouble getting pregnant or holding a pregnancy
- Infrequent, delayed or no periods
- Acne
- Excess body and facial hair
- Thinning hair or male-patterned baldness
- Cystic ovaries (seen on ultrasound that resemble a string of pearls)
- Overweight
- Patches of thick, dark-colored skin on the neck, arms, breasts and thighs
- Skin tags
- Sleep apnea
- Depression or anxiety

# DIAGNOSING PCOS

Rotterdam Criteria developed in 2003

2 of the 3 criteria are required for a diagnosis

1. Oligo-ovulation or anovulation
2. Signs of androgen excess – clinical or biochemical
3. Polycystic ovaries on ultrasound.

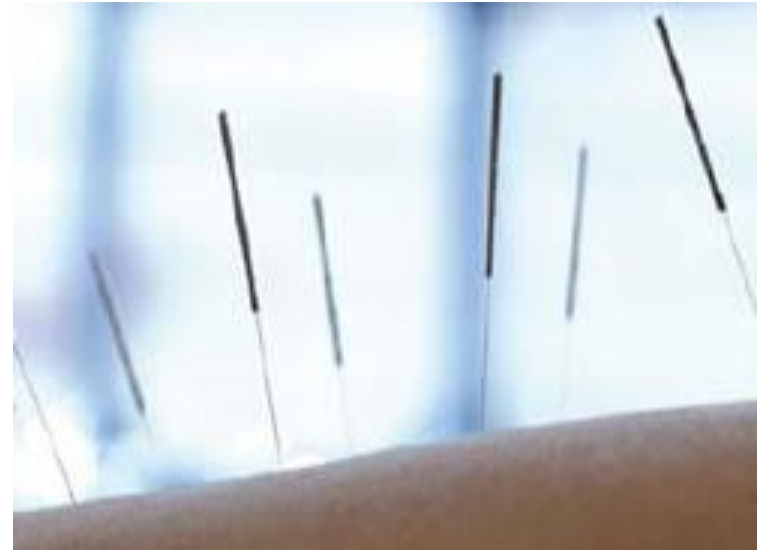
# Women with PCOS who do become pregnant are at higher risk of developing:



- Increased incidence of Type II diabetes
- Gestational diabetes
- Increased risk of cardio vascular disease
- Unfavourable lipid patterns (usually high triglycerides)
- Low bone density
- Excessive weight gain during pregnancy
- Pregnancy-induces hypertension
- Preeclampsia
- Big Babies leading to the recommendation of a C-section

# PCOS Treatment approach

- Conventional fertility testing
- Additional functional medicine testing determine the underlying cause of hormonal disorder leading to infertility or miscarriage.
- Acupuncture strategies shown to treat PCOS, increase blood flow to the reproductive organs and induce ovulation
- Nutritional supplements for PCOS
- Herbs to reduce insulin resistance and regulate glucose (blood sugar) levels
- Herbs to reduce high male hormones, prolactin and support thyroid function
- Dietary therapy
- Exercise
- Stress reduction techniques to reduce stress hormones that can interfere with ovulation and implantation



# Acupuncture in PCOS



- EA treatments induces weight loss and increases insulin sensitivity, reducing blood glucose and lipid levels
- EA reduces food intake and body weight, possibly by increasing leptin levels in both rats and humans.
- Repeated low frequency EA increases low hypothalamic B-endorphin concentrations and immune functions.(HPA axis)
- Low frequency EA stimulates ovarian blood flow

- Stener-Victorin E, E. Jedel and L Manneras Journal o Neuroendocrinology 20, 290-298



# Anovulation – PCOS

## Stener-Victorin Protocol

Innervation of ovaries and uterus: T12-L2 and S2-S4

- Ren 3, Ren 6 EA, 2HZ
- ST-29 bilateral EA, 2HZ
- SP-6 to SP-9 bilateral EA, 2HZ
- ST-36 bilaterally, manual stimulation
- LI-4 alternate PC6 bilaterally, manual stimulation
- Stimulation de qi: every 10 minutes
- Electroacupuncture: 2HZ
- Duration: 30 min/treatment
- Dosage of treatments: 14 treatments
  - 2/wk for 2 weeks, thereafter 1/week for 8 weeks
  - Thereafter 1 every fortnight for 4 weeks

# Sticking it to the Man

Using acupuncture to treat male factor infertility



# Male Fertility Outline

- Male infertility as a biomarker of health
- Sperm quality impact on pregnancy rates & embryo quality
- Quantitative evaluation of semen analysis after acupuncture
- Evidenced based acupuncture protocols for male factor infertility
- Case studies

# It still takes 2 to Make a Baby

Infertility is due to:



- Male factor 1/3 of the time
- Female factors 1/3 of the time
- Unknown or both partners 1/3 of the time

# Infertility as a Bio Marker of Other Underlying Health Risks

- A study published in fertility & Sterility of more than 9,000 men with fertility problems has revealed a correlation between the number of different defects in a man's semen and the likelihood that the man has other health problems. The study, conducted by investigators at the [Stanford University School of Medicine](#), also links poor semen quality to a higher chance of having various specific health conditions, such as hypertension, and more generally to skin and endocrine disorders.
- A study Eisenberg co-authored a few years ago showed that infertile men had higher rates of overall mortality, as well as mortality linked to heart problems, in the years following an infertility evaluation. "But here, we're already spotting signs of trouble in young men in their 30s," he said.
- "A man's health is strongly correlated with his semen quality," he said. "Given the high incidence of infertility, we need to take a broader view. As we treat men's infertility, we should also assess their overall health. That visit to a fertility clinic represents a big opportunity to improve their treatment for other conditions, which we now suspect could actually help resolve the infertility they came in for in the first place."

<http://dx.doi.org/10.1016/j.fertnstert.2014.10.017>

Walsh et al. Cancer. Epub. Mar 2010  
Walsh et al. Arch Int Med. 169: 351, 2009  
Walsh et al. Cancer. 116: 2140-7, 2010

# Sperm May Impair IVF Embryo Quality

- Dad's Phthalates May Impair IVF Embryo Quality
  - Likelihood of high-quality embryo cut by half in men with high levels

**Parental contributions to early embryo development: influences of urinary phthalate and phthalate alternatives among couples undergoing IVF treatment**

Hum. Reprod. (2016)

doi: 10.1093/humrep/dew301

# It takes two to make a healthy baby

- What a father eats before conception may affect his baby's risk of birth defects, suggests a new study on mice conducted by researchers from McGill University in Montreal.
- The rate of birth defects was 28 per cent higher per litter of baby mice if their fathers were fed a diet deficient in vitamin B9 or folate compared to litters where both parents were fed a healthy diet, reported the study published Tuesday in the journal Nature Communications.



# Case study #1 – Failed ICSI

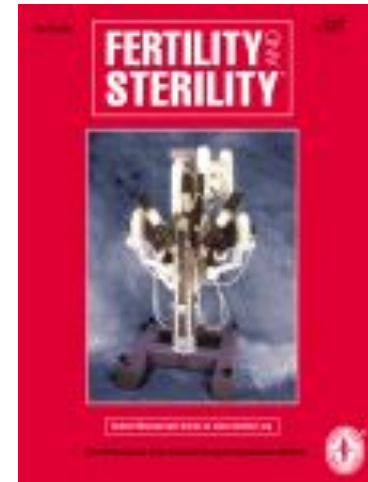
- Age 37 (wife age 31)
- Count 7 million
- They did ICSI cycle due to sperm issues and had nice embryo quality day 3 embryos but the embryos seemed to slow down and arrest on the way to blastocyst
- TCM Trx started Jan 12, 2011
- 4 months later ....May 2011 Semen analysis count >25million
- Conceived naturally August 2011 cycle

# Quantitative evaluation of semen analysis after acupuncture



# Quantitative evaluation of spermatozoa ultrastructure after acupuncture treatment for idiopathic male infertility

A group of infertile men who had pathological semen analyses according to WHO criteria, were treated with acupuncture twice a week for 5 weeks. A statistically significant increase after acupuncture in the percentage and number of sperm with no structural defects was demonstrated compared to the control group of patients who received no treatment. They concluded that male infertility patients could benefit from having acupuncture. A general improvement of sperm quality, specifically in the ultrastructural integrity of spermatozoa, was seen after acupuncture.



Pei J et al Fertil Steril. 2005 Jul;84(1):141-7  
Fertility and Sterility

# Effect of acupuncture on sperm parameters of males suffering from sub-fertility related to low sperm quality

A group of infertile men with abnormal semen analysis were randomly divided into 2 groups; one group was given 10 acupuncture treatments over 5 weeks, and the other group, no treatment. Significant improvements ( $p < 0.05$ ) were demonstrated in the acupuncture group compared to the control group, in particular improved motility and morphology.



Siterman S et al Arch Androl. 1997 Sep-Oct;39(2):155-61  
Archives of Andrology

# Effects of acupuncture and moxa treatment in patients with semen abnormalities

In a prospective, controlled and blind study, a group of infertile men (married for 3 - 11 years without children) were randomized into two groups, the treatment group receiving 10 acupuncture treatments and the control group receiving sham acupuncture treatments. The patients in the acupuncture group demonstrated a significant increase in the percentage of normal forms compared to the control group



Gurfinkel E et al Asian J Androl. 2003  
Dec;5(4):345-8.  
Asian Journal of Andrology

# A PROSPECTIVE RANDOMIZED PLACEBO-CONTROLLED STUDY OF THE EFFECT OF ACUPUNCTURE ON INFERTILE PATIENTS WITH SEVERE OLIGOASTHENOZOOSPERMIA

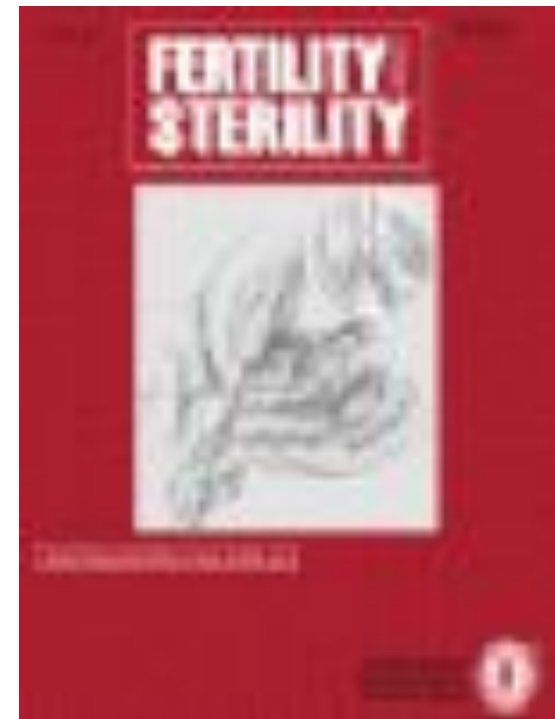


Dieterle et al  
Fertility and Sterility, 2009 Oct

In this first prospective, randomized, single-blind, placebo-controlled study, 28 infertile patients with severe oligoasthenozoospermia received acupuncture according to the principles of traditional Chinese medicine (TCM) and 29 infertile patients received placebo acupuncture. A significantly higher percentage of motile sperm (World Health Organization categories A–C), but no effect on sperm concentration, was found after acupuncture compared with placebo acupuncture.

## POINT- AND FREQUENCY-SPECIFIC RESPONSE OF THE TESTICULAR ARTERY TO ABDOMINAL ELECTROACUPUNCTURE IN HUMANS

- These authors demonstrate that particular frequencies applied for just five minutes are effective in increasing blood flow in the testes and suggest that such a stimulus may address the damaged microcirculation associated with varicoceles, and with aging. They note that decreased testicular arterial blood flow may result in impaired spermatogenesis from defective metabolism in the microcirculatory bed and suggest that further research is needed to discover if electroacupuncture can improve sperm manufacture in this instance.



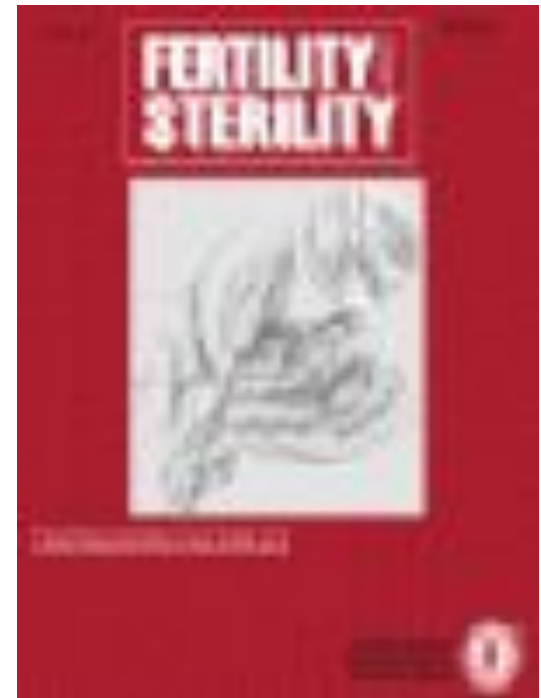
Cakmak Y et al  
Fertility and Sterility, 2008



# INFLUENCE OF ACUPUNCTURE ON IDIOPATHIC MALE INFERTILITY IN ASSISTED REPRODUCTIVE TECHNOLOGY

The clinical effects of acupuncture on idiopathic male infertility in sperm parameter and on therapeutic results in assisted reproductive technology were investigated. 22 patients failed in intracytoplasmic sperm injection (ICSI) with idiopathic male infertility were treated with acupuncture twice weekly for 8 weeks, followed by ICSI treatment again. The sperm concentration, motility, morphology, fertilization rates and embryo quality were observed. Quick sperm motility after acupuncture was significantly improved as compared with that before treatment. The normal sperm ratio was increased after. The fertilization rates after acupuncture were obviously higher than that before treatment. There was no significant difference in sperm concentration and general sperm motility between before and after acupuncture. The embryo quality after acupuncture was improved, but the difference between them was not significant ( $P > 0.05$ )

- Acupuncture can improve sperm quality and fertilization rates in assisted reproductive technology



Zhang M et al  
Journal of Huazhong University, 2002

## DOES ACUPUNCTURE TREATMENT AFFECT SPERM DENSITY IN MALES WITH VERY LOW SPERM COUNT? A PILOT STUDY

This pilot study once again showed a positive effect of acupuncture on sperm count - but this time on men with such low sperm counts (or no sperm) that they would usually require a testicular biopsy to extract sperm for use in an IVF cycle. Seven of the 15 men with no sperm at all produced sperm detectable by the light microscope after a course of 10 acupuncture treatments ( $p < 0.01$ ) ie enough sperm could be produced for ICSI to be performed without recourse to testicular biopsy. The control group with similar semen analysis had no treatment and showed no change after 3 months.



Siterman S et al Andrologia. 2000  
Jan;32(1):31-9.  
Andrologia

# **Quantitative evaluation of spermatozoa ultrastructure after acupuncture treatment for idiopathic male infertility.**

The treatment of idiopathic male infertility could benefit from employing acupuncture. A general improvement of sperm quality, specifically in the ultrastructural integrity of spermatozoa, was seen after acupuncture, although we did not identify specific sperm pathologies that could be particularly sensitive to this therapy



# Modification of semen quality by acupuncture in sub-fertile males

Each patient received a total of 10 treatments for a period of three weeks.

Several spermiograms were made after diagnosis subfertility. We checked spermiograms and hormone levels before and after acupuncture. Total count, concentration and motility were evaluated.

In all cases we observed a statistically significant improvement of sperm quality

- Geburtshilfe Frauenheilkd. 1984 Aug;44(8):510-2
- Article in German

Men respond well to treatment...



... if they would actually come for treatment

# Male acupuncture protocol

Increase Testicular Blood flow

- ST-29 bilateral EA, 10HZ

Must use EA for results

And can use Stener Victorin Blood Flow (Add SP-9 to SP-6 with EA at 2-10hz)

Increase sperm parameters

- BL-23, BL-32, DU-20, KD-3,
- ST-36, ST-29, SP-6, REN 4
- Dosage of treatments: 10 treatments
  - 2/wk for 5 weeks

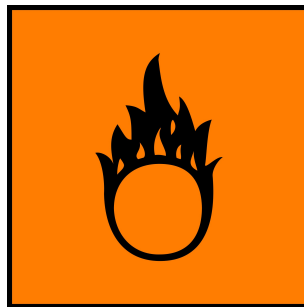
# Antioxidant diet





# Oxidative Stress and Male Infertility

- **30-80%** of male infertility is due to oxidative stress
- Oxidants **reduce** sperm motility
- Oxidants **increase DNA fragmentation**
- Small studies have **not shown** benefits of antioxidants



Blog: Why Blueberries Matter

# Oxidative Stress and Male Infertility

## *Cochrane Review*

- Analyzed **34** randomized, controlled trials
- **N=2876** couples
- Male partners given antioxidants or placebo
- **IVF outcomes** analyzed: birth and miscarriage
- Meta-analysis performed

Showell et al. Antioxidants For Male Infertility  
Cochrane Database Syst Rev. 2011 Jan 19.

# Oxidative Stress and Male Infertility

## *Cochrane Meta-analyses Take Away*

- The **best** antioxidants are found in the **diet**
- Most men have **terrible**, antioxidant-poor diets
- If men ate more **fruits and vegetables**, maybe fertility would improve
- **Antioxidant supplements** could be considered similar to classic “prenatal” vitamins for men

Blog: Why Blueberries Matter

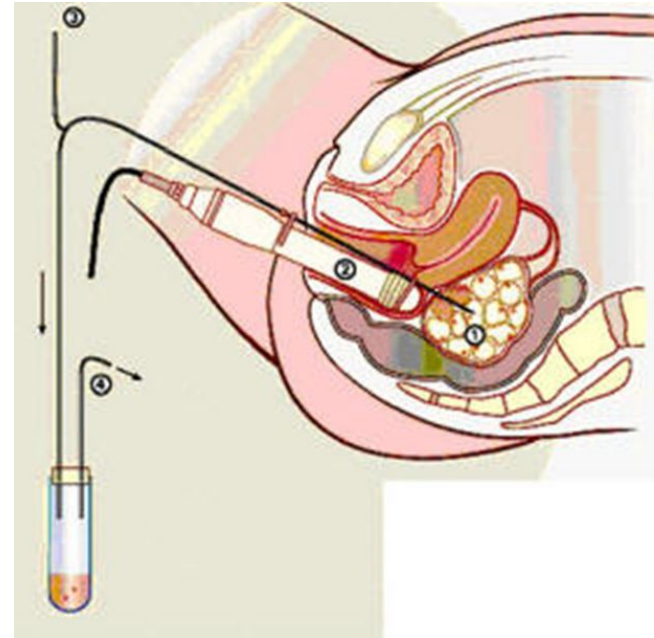
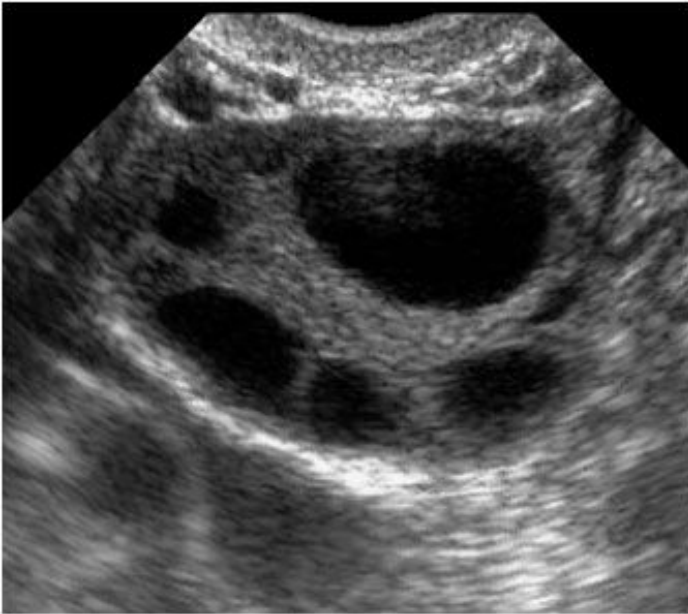
<http://www.theturekclinic.com/why-blueberries-matter-antioxidants-male-infertility/>

# Summary

- Healthy Diet
- Lifestyle
- Acupuncture  
2-4/week over a  
minimum of 5  
weeks
- EA 10hz over lower  
abdomen (ST-29)

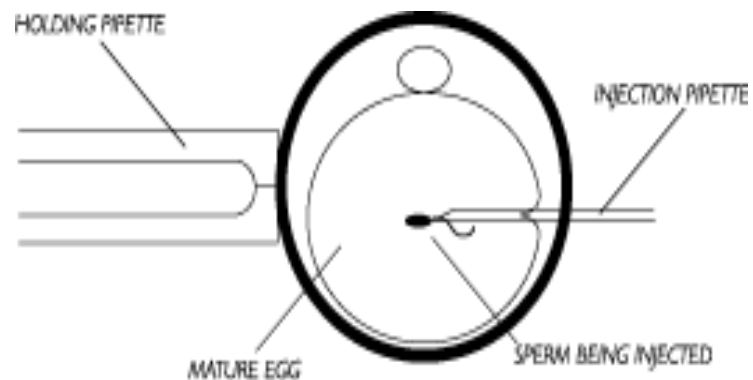
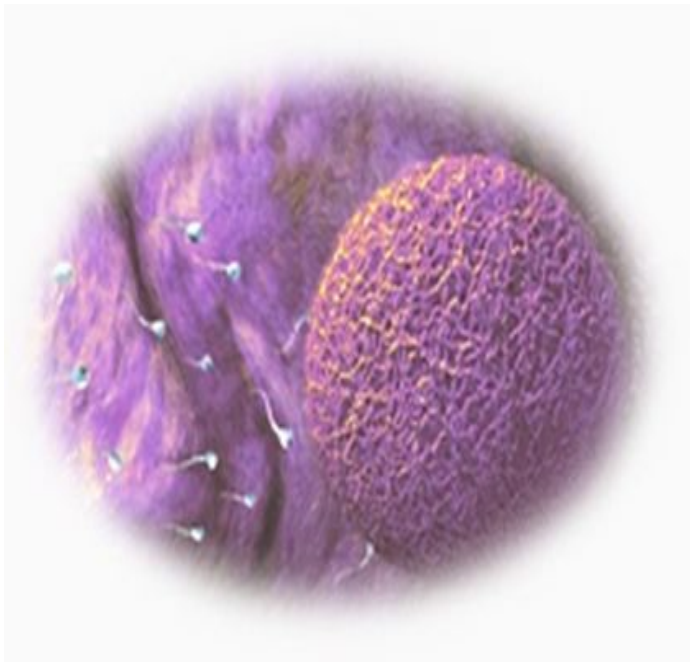


# IVF & Acupuncture



# IVF versus IVF + ICSI

*“intracytoplasmic sperm injection”*



INTRACYTOPLASMIC  
SPERM INJECTION

# A Day 5 Embryo (Blastocyst – grade 5BB)





# What Happens To Aneuploid (Abnormal) Embryos?

1. They don't implant
2. Miscarriage
3. Genetically abnormal child

# Comprehensive Chromosome Screening

A **biopsy** procedure used to test embryo for the amount of chromosomal material that each of its cells contains

It is a diagnostic test for aneuploidy!

# Who Can Benefit from CCS?

- Previous failed IVF cycles
- Advanced reproductive age
- Recurrent pregnancy loss
- Anyone! - will become “standard of care”

# IVF - CCS Step by step

- IVF Cycle
- Culture to Blastocyst
- Trophectoderm biopsy
- Vitrification
- Biopsied cells sent to outside lab for testing
- Frozen normal embryo(s) transferred in the next cycle



# Comprehensive Chromosomal Screening CCS

## Pros

- Higher pregnancy rates
- Lower miscarriage rates
- Avoid conceiving unhealthy pregnancies
- Only freeze healthy embryos
- Concrete answers for patients
- May be more cost effective

## Cons

- Additional cost
- Need to freeze embryos  
(*may be a pro*)
- May not have any normal embryos to transfer

# Acupuncture on IVF transfer day

## Pre-transfer

- Pre-transfer
  - Du20, PC6, ST-29, SP-8, Liv3
  - Ear brain (R), Ear Uterus (R), Ear Endocrine (L), Ear Shen men(L)



# Acupuncture on IVF transfer day 3

## Post Transfer

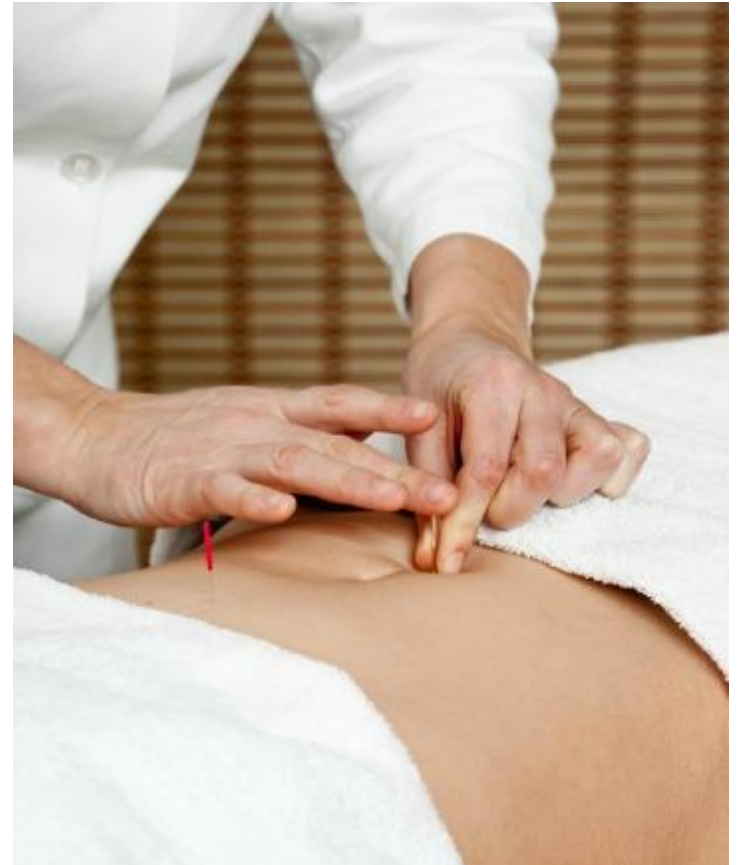


- Post-transfer
  - LI-4, SP-10, ST-36, SP-6
  - Ear brain (L), Ear Uterus (L), Ear Endocrine (R), Ear Shen men(R)



# Day 5 Post Transfer

- Post-transfer
  - LU7 X K6
  - DU20
  - Optional ST36
  - Ear brain (L), Ear Uterus (L), Ear Endocrine (R), Ear Shen men(R)



# Laser Acupuncture on transfer day



# Impact of whole systems traditional Chinese medicine on in vitro fertilization outcomes



- Whole Systems Traditional Chinese Medicine (WS-TCM) added to IVF may be beneficial.
- WS-TCM and IVF was associated with more live births compared with acupuncture just on transfer day and IVF.
- WS-TCM and IVF was associated with more live births compared with IVF alone.
- WS-TCM is individualized and includes acupuncture and other TCM interventions.

# Dosage of Acupuncture

- Dr. Paul Magarelli and Diane Cridennda 9-11 treatments
- Lee Hullender Rubin – 12 treatments
- Effect of transcutaneous electrical acupuncture point stimulation (TEAS) on endometrial receptivity in women undergoing frozen-thawed embryo transfer
  - Both groups had six sessions per cycle for three menstrual cycles prior to the scheduled FET

## Changes in serum cortisol and prolactin associated with acupuncture during controlled ovarian hyperstimulation in women undergoing in vitro fertilization–embryo transfer treatment

- A number of women going through IVF were given acupuncture to increase blood flow through the uterine arteries in the immediate weeks before egg collection. The researchers found that the women who had acupuncture showed beneficial changes in serum levels of stress hormones compared to the control group of women who did not have acupuncture. The acupuncture treatments appear to normalize levels of cortisol and prolactin which have been artificially depressed by the IVF drugs. This may have implications for both egg quality and implantation. In addition the pregnancy and live birth rate was significantly higher in the acupuncture group



Magarelli, PC, D Cridennda, M Cohen. Fertil Steril 2009 in press  
Fertility and Sterility

# HEALTHY BABY APPROACH

- Healthy egg
- Healthy sperm
- Healthy uterine environment

EPIGENETICS



+



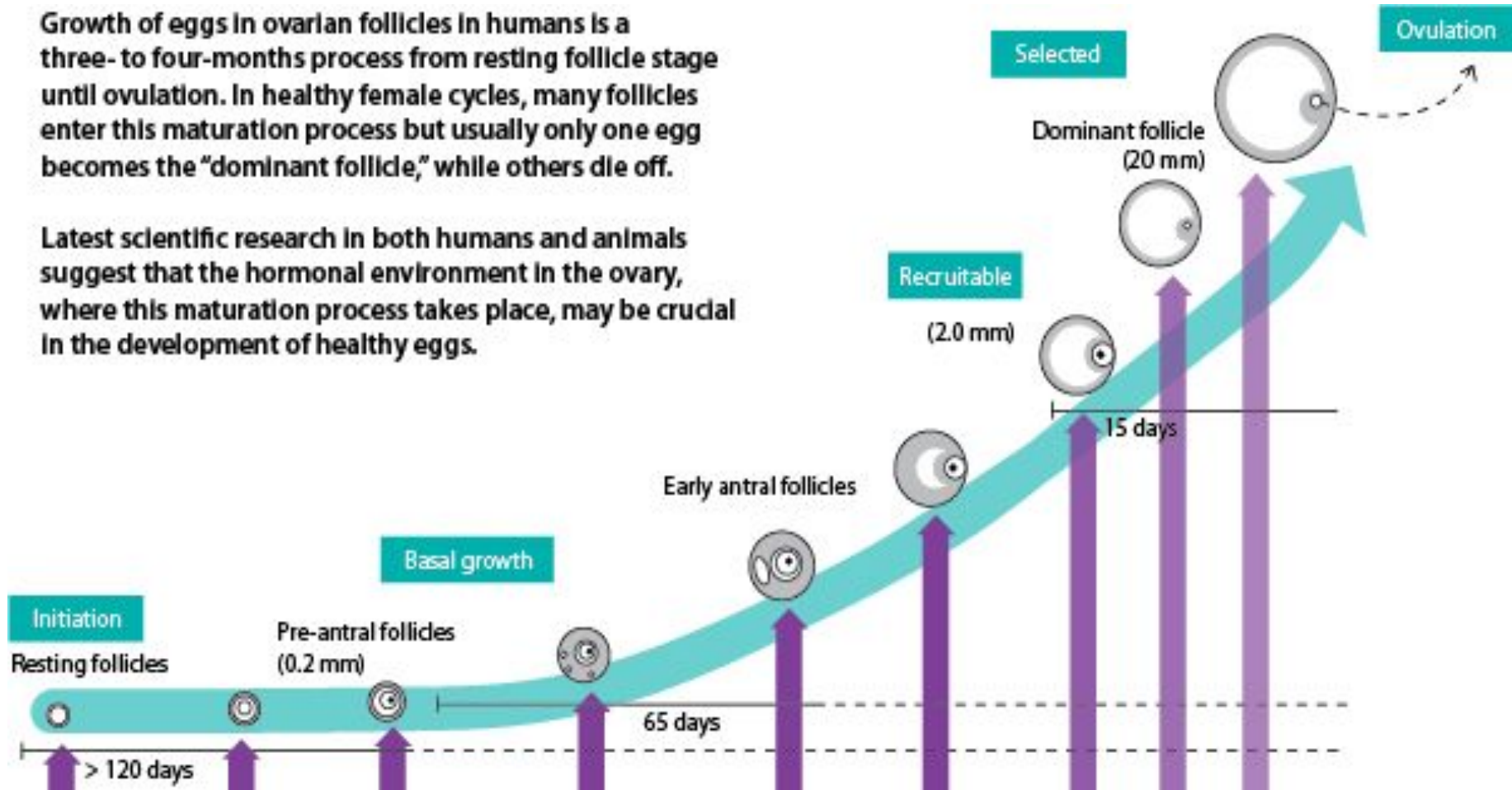
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# Nourish the Soil Before Planting the Seed

Growth of eggs in ovarian follicles in humans is a three- to four-months process from resting follicle stage until ovulation. In healthy female cycles, many follicles enter this maturation process but usually only one egg becomes the "dominant follicle," while others die off.

Latest scientific research in both humans and animals suggest that the hormonal environment in the ovary, where this maturation process takes place, may be crucial in the development of healthy eggs.



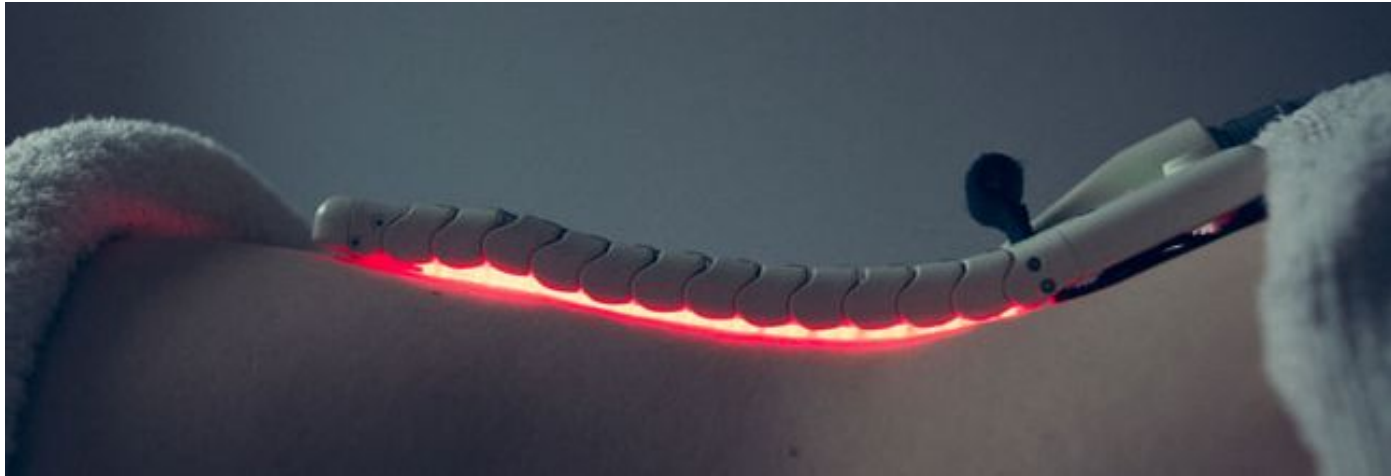


# Case

## Pediatric Nurse

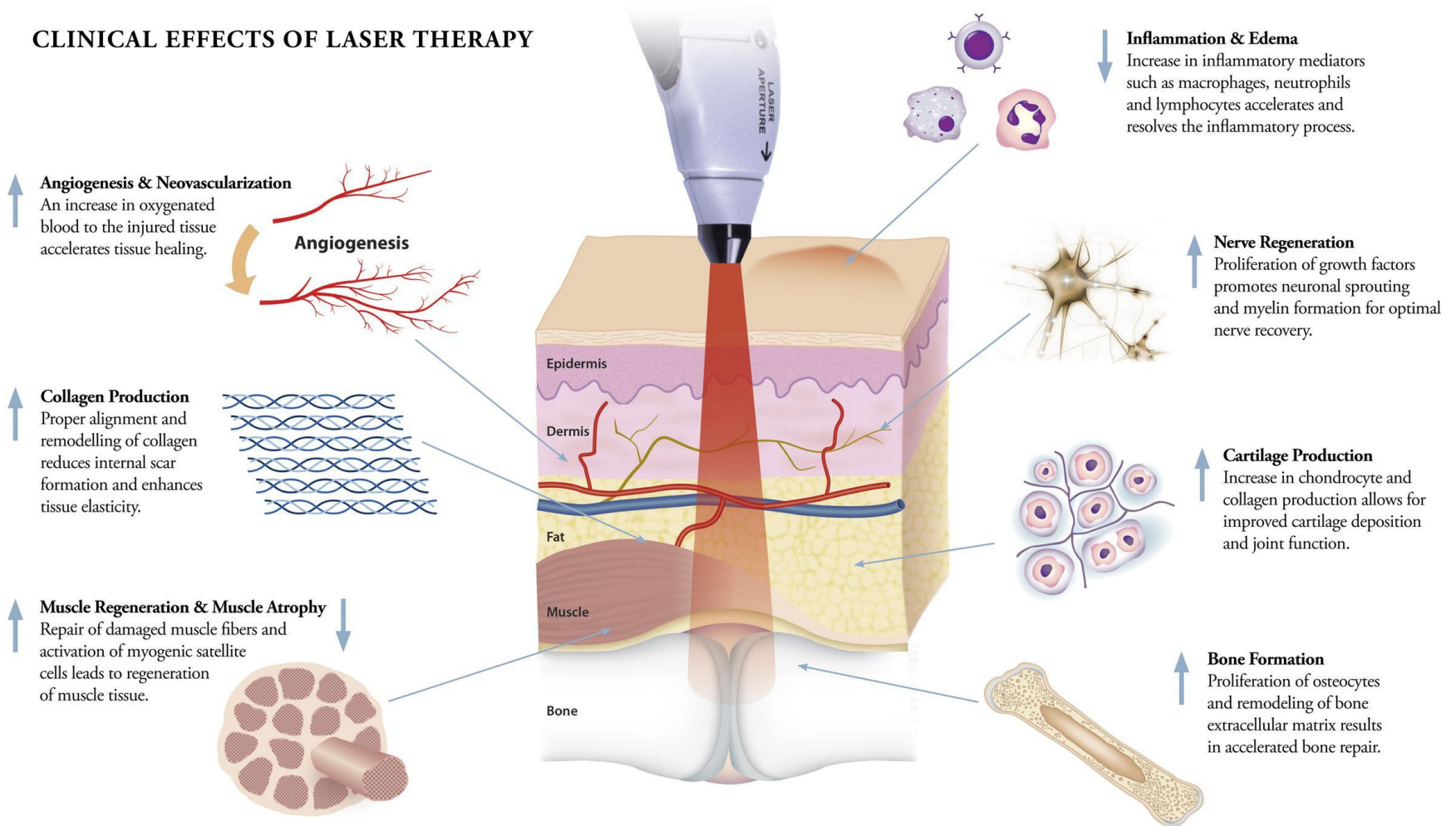
- Age 40
- IVF unsuccessful – low response
- Constipated
- Cold
- Stressed
- Overweight
- PMS and painful periods

# LLLT (Cold Laser) for Infertility



# Mechanism of LLLT (Cold Laser) for Infertility

## CLINICAL EFFECTS OF LASER THERAPY



# LLLT for Female Infertility: No Longer Just a Dream

- Some 20 years ago in 1995, the author was treating a 55-year-old menopausal female patient in his pain clinic for severe lower back pain. After a few sessions, her back pain was successfully removed, but she returned later to the clinic complaining of vaginal bleeding: she was followed for a week, and it stopped spontaneously. Four weeks later, the bleeding had started again but stopped after a week or so, and this continued for succeeding months. In fact, it was found that the patient had incidentally been brought out of menopause by the LLLT sessions for her lower back pain. Exactly the same phenomenon subsequently occurred in another female patient attending the author's pain clinic.
- Following the involvement of a leading gynecology professor in Sanno Hospital, an extended trial on LLLT using the author's proximal priority technique was performed in 562 infertile patients, 122 of whom became pregnant resulting in 62 “laser babies”. LLLT on its own accounted for 28 of the 122 pregnancies, and LLLT plus ARTs for the remaining 94. This study has been reported in detail in a previous issue of the journal (Ohshiro T: Personal overview of the application of LLLT in severely infertile Japanese females. *Laser Therapy*, (2012); 21: 97–103).

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4639673/>

Journal for laser surgery, phototherapy and photoactivation

[Toshio Ohshiro](#), MD PhD

## **Overview of the Application of LLLT in Severely Infertile Japanese Females**

**Conclusions:** The use of 830 nm LLLT in the proximal priority technique at the parameters used in the present study, on its own or as an adjunct to other techniques, resulted in successful induction of pregnancy in just over 21% of severely infertile females, with a substantial number of these achieving live births. No adverse events were noted in any patient.

LLLT is a pain-free and side effect-free modality which could give hope to the increasing numbers of older females with infertility in Japan and potentially worldwide. Multinational studies are warranted.

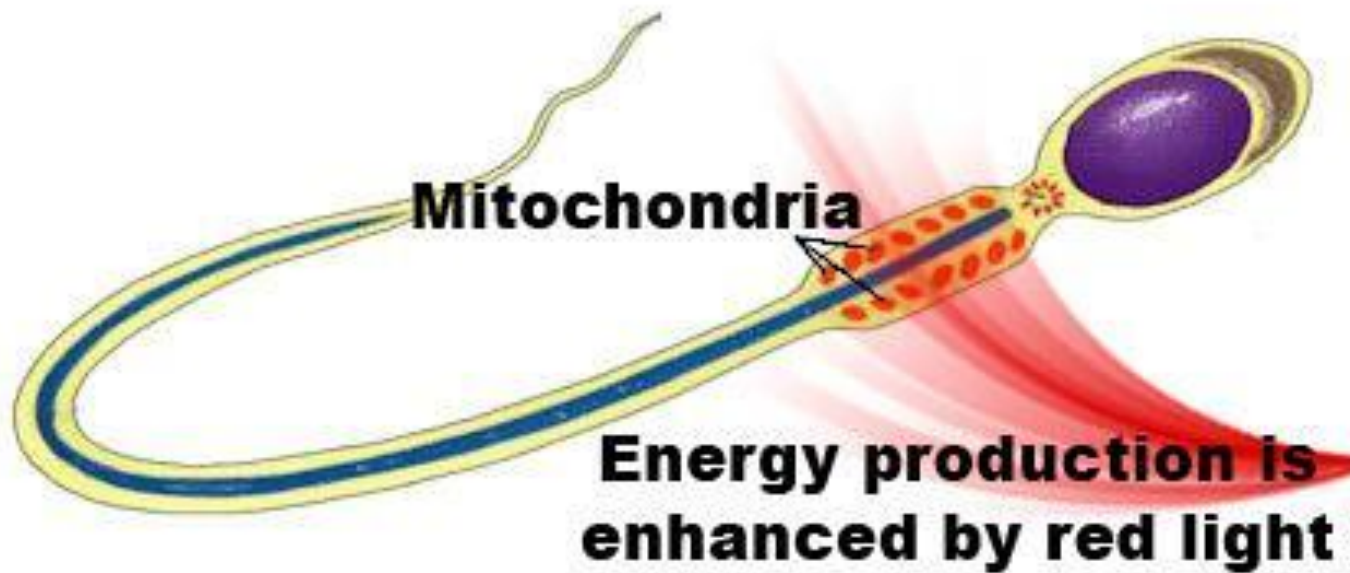
- LLLT was applied (830 nm, CW, GaAlAs 60 mW diode LLLT) in Ohshiro's proximal priority technique (average 21.08 sessions)

# The Proximal Priority Theory: An Updated Technique in Low Level Laser Therapy with an 830 nm GaAlAs Laser

- There many theories as to why this approach works. However the literature has pointed to the efficacy of irradiation of the stellate ganglion for a number of entities, where the main mechanism was shown to be related to activation of the parasympathetic system. [9-11](#)) In addition to irradiating the carotids, there is no doubt that the laser energy delivered by PPLT may also involve the stellate ganglions, thereby activating the descending inhibitory pathway and further enhancing whole-body messaging.
- [Fig. 11](#) shows the whole body warming phenomenon in a female patient being treated with PPLT for serious infertility. This system, the 'rest and digest' system, ensures whole body relaxation and removes any sympathetic hypertension caused by the other component of the autonomous nervous system, the sympathetic 'fight or flight' system. With the relaxation of the muscles which is part of parasympathetic dominance, the arterial walls will also relax promoting increased blood flow and oxygenation of the tissues being fed by the vessels. At the same time, hypertensive patients may experience a drop in blood pressure towards normal.
- From both subjective assessment and objective assays, there is clearly apparent increased local, cerebral and systemic blood flow following PPLT procedures, with pain relief and feelings of general well-being in treated patients. Increased parasympathetic control is one of the major suggested reasons and would tend to be proved by the objective thermography, Doppler flowmeter and SPECT assessments. The results of this article would strongly suggest that the author's revised proximal priority laser technique is a viable manner in which to increase the efficacy of LLLT with the 830 nm GaAlAs laser as used in the parameters reported in the present study.

# More literature review on LLLT for Sperm quality

[http://www.rj-laser.com/english/laser\\_therapy\\_male\\_infertility.htm](http://www.rj-laser.com/english/laser_therapy_male_infertility.htm)





## *Low-level laser therapy appears to improve sperm motility parameters in a dose-dependent manner.*

- SAN FRANCISCO—Low-level laser therapy (LLLT) may perk up sperm and improve fertility rates, according to a newly released study.
- Laser treatment of prepared substandard sperm prior to intrauterine insemination (IUI) or in vitro fertilization (IVF) may yield improved assisted reproductive technology results, Australian researchers reported here at the annual meeting of the American Society for Reproductive Medicine. In addition, laser therapy may be beneficial for in vivo direct testicular treatment of men with substandard semen.
- There is considerable published literature detailing the photobiomodulation effects on human tissue of LLLT from both laser and light-emitting diode (LED) sources at wavelengths from 630 to 1,000 nm. Few data exist regarding their effect on spermatozoa, however.

# Chinese Medicine Validated

## Telomere Effect



Biological vs. chronological age, implications for Assisted Reproductive Technology:

*“.....biological and chronological ovarian age are not always equivalent. Furthermore, biological age is more important than chronological age in predicting the outcome of ART. As older patients present increasingly for ART treatment, it will become more important to critically assess prognosis, counsel appropriately and optimize treatment strategies.”*

# Summary

## Acupuncture:

1. Improves uterine blood flow
2. Improves uterine receptivity and live birth rates
3. Regulates menstrual cycles, hormones
4. Improves semen parameters
5. Stress relief
6. Increases IVF pregnancy and live births
7. Incorporate LLLT (Cold laser) for increased mitochondria



# Nourish the Soil Before Planting the Seed



## Optimize The Environment

# Resources & Fertility Seminars

## **Integrative Fertility Symposium**

- 2015, 2016 & 2017 lecture recordings
- [www.ifsymposium.com](http://www.ifsymposium.com)

## **Pro D Seminars**

- [www.prodseminars.com](http://www.prodseminars.com)

## **Medigogy.com**

- Free 1-hr lectures

## **Acubalance – Vancouver, BC, Canada**

- [www.acubalance.ca](http://www.acubalance.ca)

# Thank you



# Questions