

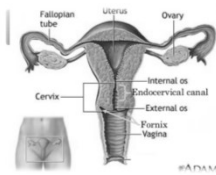
ENHANCING FERTILITY USING NATUROPATHIC MEDICINE

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OUTLINE

- Reproductive Basics
- Male factor infertility
 - Aging
 - Oxidation status
 - Hormonal health
- Female factor infertility
 - Structural barriers
 - Hormonal health
- Common hormone disruptors
 - Stress
 - SNAD
 - Environmental toxicity
- Psychological considerations
- Be empowered
 - What you can do
 - What your ND can do

THE BIRDS AND THE BEES

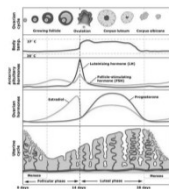


THE BIRDS AND THE BEES

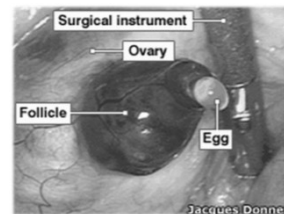


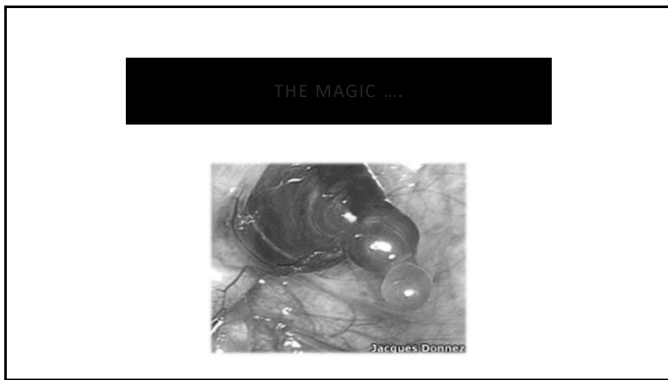
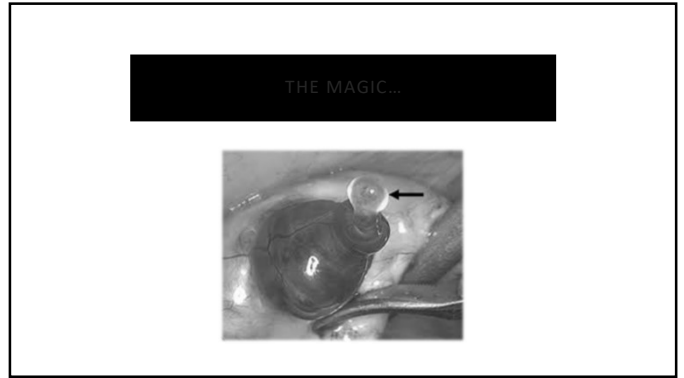
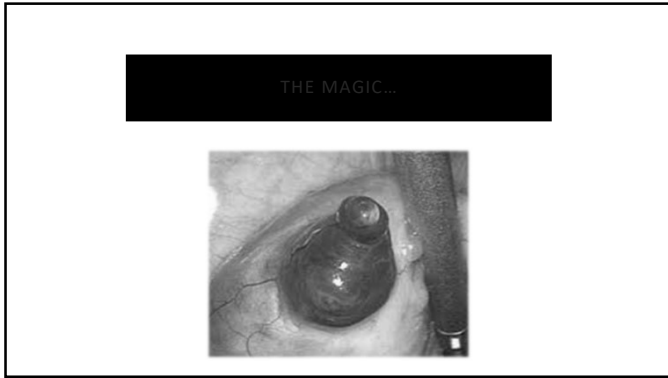
THE BIRDS AND THE BEES

- Follicle stimulating hormone (FSH)
- Luteinizing hormone (LH)
- Progesterone
- Estrogen



THE MAGIC....





OVULATION, FERTILIZATION AND IMPLANTATION

- Egg bursts through ovarian wall
- Within 20 seconds, fimbria draw egg into tube
- Fertilization occurs in outer 1/3rd of fallopian tube
- Fertilized egg propelled by cilia lining fallopian tube
- Within one week, egg reaches the uterus

WHAT CONDITIONS NEEDS TO EXIST?

- **Men**
 - Sperm
 - Quantity
 - Responsible for 30-40% of cases
 - Quality
 - Linked to miscarriage
 - Motility
 - Hormonal influences
 - Genetic factors
 - Circulation
 - Able to penetrate egg
- **Women**
 - Ovulation
 - Hormonal imbalances
 - Patent fallopian tubes
 - Chronic infection
 - Scarring/obstruction
 - Fibroids
 - Endometriosis
 - Cervical/immunological factors
 - Cervical mucus hostile?
 - Allergy to sperm?

INDICATORS OF FERTILITY

- **Basal body temperature**
 - Can indicate hypothyroidism
 - Indicates length of 'luteal phase' – should be a minimum of 12 days
 - Temperature rise occurs 12-24 hours prior to ovulation (most couples will miss this window if this is the sole cue for ovulation)
- **Cervical mucus**
 - Occurs prior to ovulation (about 2 days)
 - Allows sperm to swim easily towards cervix and gain entry into reproductive tract
 - Provides an alkaline medium while sperm travel through an acidic environment
 - Filters sperm that are morphologically intact
 - Allows sperm to lie in wait for egg to be released

FUTURES DADS

- Male factor infertility
 - Responsible for as many as 68% of cases
- Sperm vulnerable to damage
 - Size: 1 sperm is 1/1200th the size of the ova
 - Quality: declines with age
 - Undergo more cell divisions compared to ova
 - Under hormonal control
 - Takes almost 3 months to mature
 - Illness/toxic exposure/poor nutrition call all affect maturing sperm regardless of health.

FUTURE DADS

- Men have a biological clock too...
 - At age 50, cells that create sperm have gone through 800 rounds of division and replication
 - On the decline:
 - Sperm count
 - Motility
 - Ability to swim in a straight line
 - Sperm DNA fragmentation
 - Increases at a rate of 2% per year
 - Advanced paternal age
 - Associated with neurological abnormalities

FUTURE MOMS



- Rule out structural abnormalities
 - Scarring
 - Physical barriers presented by:
 - Fibroids
 - Endometriosis
 - Role of prostaglandins
- Rule out hormonal dysregulation
 - PCOS
 - Luteal phase deficit
 - Hypothyroidism

FUTURE MOMS AND DADS

- Hormonal disruption
 - SNAD
 - Standard North American diet
 - Canada Food Guide
 - The role of stress
 - The role of toxicity
 - Exogenous
 - Endogenous



THE STANDARD NORTH AMERICAN DIET

- | | |
|---|--|
| <ul style="list-style-type: none"> • High in refined carbohydrates • White breads • White pasta • White rice • High in simple sugars • Pop, juice • Ice cream, candy etc... • High in inflammatory fats | <ul style="list-style-type: none"> • Low in protective fruits and vegetables • High consumption of meat and dairy • Low in vegetable sources of protein • Low water intake • High exposure to chemical additives • Low nutritional content |
|---|--|

THE SNAD: HORMONAL FALLOUT



- Simple and refined sugars
 - Insulin levels chronically high
 - Decreases SHBG
 - Increases testosterone levels
 - Leads to estrogen dominance
 - 'insulin like growth factor' is increased
 - Moderate alcohol consumption increases IGF
 - Contributes to estrogen dominance

THE SNAD: INFLAMMATORY FOODS

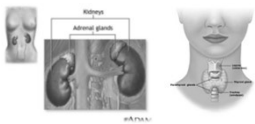
- Top 5 allergens
 - Gluten
 - Dairy
 - Eggs
 - Soy – usually GMO
 - Corn – usually GMO
- Found most commonly in processed foods
 - Contributes to immune dysfunction and chronic inflammation
- High in meat and inflammatory fats
 - Animals usually subject to many rounds of antibiotic therapy
 - Medications persist in tissues
 - Allows harmful bacteria to recirculate estrogen
 - Increased estrogen increases IGF1
 - Excessive inflammation – increased prostaglandins
 - Ovaries and fallopian tubes contract out of phase with each other
 - Effects on sperm development

THE STRESS CONNECTION

- Critical for survival
 - Dilation of pupils
 - Shunting of blood to the extremities
 - Heart rate and pressure increase
 - Mobilizes fuel stores



THE STRESS CONNECTION



- High cortisol levels
 - Decreases SHBG
 - Increases IGF-1
 - Increased insulin
 - Drives fat deposition
 - Increases testosterone
 - Functional progesterone deficiency
 - Hypothyroid symptoms

TOXICITY AND THE ENVIRONMENT

- Environmental pollutants
 - Ubiquitous
 - Cars
 - Power plants
 - Amalgams
 - Agricultural chemicals
 - Endogenous waste
 - A problem if liver, kidneys and lymph aren't functioning optimally



PSYCHOLOGICAL CONSIDERATIONS



- Acknowledge feelings around having a child
 - Ambivalence or fear of birthing process?
 - Changes to body?
 - Ability to parent?
 - Independence afterward?
 - Concerns over stability of relationship?
 - Holding on to grief or loss from the past?

ADRENAL HEALTH: WHAT TO DO?

- Restore balance
 - 'Set your clock'
 - Sleep in a dark room
 - Exposure to bright light in the morning
 - Follow a regular meal schedule
 - EAT BREAKFAST!
 - Maintain healthy blood sugar balance
 - Whole foods
 - Don't require labels
 - 50% veggies
 - 50% calories from fat
 - Clean proteins
- Effective stress management
 - Deep breathing
 - Mindfulness practice: formal or informal
 - Healthy boundaries: strategies for 'psychic vampires'
 - Clear and honest communication
 - Fun and laughter
 - Time with good friends
 - Regular exercise
 - Caution with respect to overtraining
 - Pay attention to body fat

POLLUTANTS: WHAT TO DO?



- Detoxify and rejuvenate
 - Cleanse using a comprehensive program
 - Liver focus
 - Choose locally grown and organic foods whenever possible
 - Drink plenty of fresh and filtered water
 - Eliminate alcohol, caffeine, and smoking
 - Address unproductive emotions

HORMONAL HEALTH: WHAT TO DO?

- In addition to nutritional, adrenal, and environmental health...
 - La Bella Luna
 - Impact of the lunar cycle on fertility and menstrual cycle
 - Sleep with a soft light (40-50 watts) around ovulation or sleep in the light of the full moon
 - Schedule intimacy for the full moon



PUTTING IT ALL TOGETHER

- Address major causes
- Restore balance to adrenals
- Detoxify and rejuvenate
- Maintain healthy body weight
- Celebrate your reproductive power
- Use this time as an opportunity for change
 - Everything you do makes a difference

BODIES IN BALANCE



"Every day is a new beginning. Take a deep breath and start again"
 ~anon~