

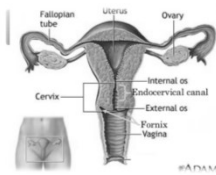
# ENHANCING FERTILITY USING NATUROPATHIC MEDICINE

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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

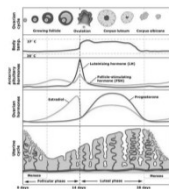


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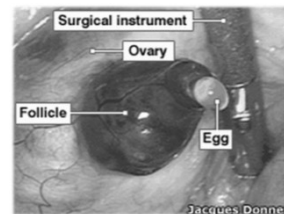


## THE BIRDS AND THE BEES

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



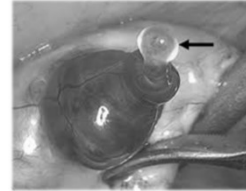
## THE MAGIC....



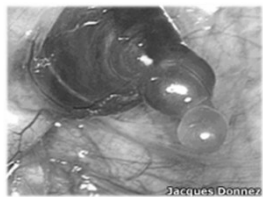
THE MAGIC...



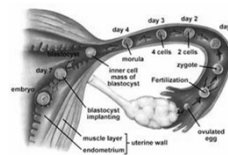
THE MAGIC...



THE MAGIC .....



OVULATION, FERTILIZATION AND IMPLANTATION



- Egg bursts through ovarian wall
- Within 20 seconds, fimbria draw egg into tube
- Fertilization occurs in outer 1/3<sup>rd</sup> 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 1/1200<sup>th</sup> 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"> <li>• High in refined carbohydrates</li> <li>• White breads</li> <li>• White pasta</li> <li>• White rice</li> <li>• High in simple sugars</li> <li>• Pop, juice</li> <li>• Ice cream, candy etc...</li> <li>• High in inflammatory fats</li> </ul> | <ul style="list-style-type: none"> <li>• Low in protective fruits and vegetables</li> <li>• High consumption of meat and dairy</li> <li>• Low in vegetable sources of protein</li> <li>• Low water intake</li> <li>• High exposure to chemical additives</li> <li>• Low nutritional content</li> </ul> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 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

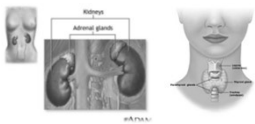
- Top 5 allergens
  - Gluten
  - Dairy
  - Eggs
  - Soy – usually GMO
  - Corn – usually GMO
- Found most commonly in processed foods
  - Contributes to immune dysfunction and chronic inflammation
- High in meat and inflammatory fats
  - Animals usually subject to many rounds of antibiotic therapy
    - 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~