Hormone Balance

For Ideal Health and Long Life
Definition: Hormone

(*hormo*--- to set in motion)

A substance produced by one tissue and carried by the bloodstream to another to trigger a physiological effect.
About Hormones

• Regulators (point and click)
• Miniscule amounts
• Receptors
• Highly interactive
Balance for Healthy Aging
Psychophysiological Expressions of Biological Intelligence: The Three Doshas

Social & Physical Environment

Thoughts
Moods
Emotions
Attitudes
Beliefs

Organs
Tissues
Cells
Hormones/Molecules/DNA
Atoms
Subatomic Particles

Diet
Exercise
Sleep
Work
Activities

Subatomic Particles

VATA
PITTA
KAPHA

Unified Field
Organizing Value of Biological Intelligence
OJAS: Interface of Matter and Intelligence

OJAS  RASA  RAKTA  MAMSA  MEDHA  ASHTI  MAJJA  SUKRA  OJAS

OJAS

Biological Intelligence
Dosha Functions

VATA -- Moving
- Neuroendocrine
- Circulation

PITTA -- Transforming
- Digestion
- Metabolism

KAPHA -- Structural
- Physical body
Three Stages of Life

• Birth to age 30 -- Kapha
• Age 30 to 60 ---- Pitta
• Age 60 + -------- Vata
Hormone Decline with Age

- Growth hormone
- Melatonin
- DHEA
- Estrogen, progesterone
- Testosterone
Hypothalamic-Pituitary-Adrenal Axis

**Figure 1** Location of the components of the hypothalamic-pituitary-adrenal (HPA) axis. The hypothalamus is located in the brain, directly above the pituitary gland. The adrenal glands are located in the lower back, one atop each kidney.
Steroid Hormone Family

- Stress response
- Reproductive hormones
- Repair and recovery
- Blood sugar
- Fluid balance, BP
- Strength and vitality
Aromatization

- Testosterone turns into Estradiol
- Via aromatase enzyme
Circadian Cortisol Profile

Free Cortisol

8 AM  Noon  4 PM  Midnight

Reference Ranges

Patient Results
Difficult as it was to cut down on her caffeine consumption, Marcie strictly observed her self-imposed limit of one cup of coffee a day.
Stress Response—Hans Selye

Cortisol    DHEA

Alarm    $\uparrow$    $\uparrow$

Prolonged    $\uparrow$    $\leftrightarrow$

Exhaustion    $\downarrow$    $\downarrow$
Chronic Stress $\rightarrow$ Excess Cortisol $\rightarrow$ AGING

- Late nights / Lack of sleep
- Skipped and delayed meals
- Worry, fear, anger
- Excessive exercise
Excess Cortisol → AGING

- Overweight, Diabetes, CVD
- Immune suppression, Cancer
- Memory, Mood, Brain
- Muscle, Bone, Collagen loss
Excess Cortisol → AGING

- Male: $\downarrow$ testosterone
  $\uparrow$ estradiol
- Female: $\downarrow$ progesterone
- Resistance to other hormones
Cortisol Deficiency

- Slow healing, weak muscles
- Fatigue, depression, anxiety
- Low blood pressure
- Low blood sugar
- Low immunity
- Hypo-thyroid symptoms
Postmenopausal Estradiol Sources

- Adrenals*
- Fat, brain
- Arterial walls, skin
- Ovaries
Recovering Balance
The 3 (5!) Pillars of Health

• Stress Reduction (mind/cs)
• Diet— (digestion, eating habits, gut health)
• Sleep— (timing, length)
• Exercise— (physical, mental)
• Detox
Cortisol Balance = Anti-Aging

- Nutritional supplements
- Herbal therapies
- Panchakarma
- Hormonal support
Cortisol Modulators

- Ashwagandha  
  (*Withania somnifera*)
- Licorice root  
  (*Glycyrrhiza glabra*)
- Amrit Kalash Ambrosia® tablet
- *Rehmannia glutinosa*
Cortisol (Modulators) cont’d

- Holy Basil 
  *(Ocimum Sanctum)*
- Gotu Kola 
  *(Centella asiatica)*
- Brahmi 
  *(Bacopa monniera)*
- Worry Free®
MAPI Stress Protectors

- Stress-Free Mind®
- Youthful Mind®
- Mind Plus®
- Worry Free®
- MA 686 (Ashwagandha)
- Ambrosia® tablet
Hormone Support
www.mapi.com

Women

Hot Flash Relief (shatavari)
Midlife II
Rejuvenation for Ladies
Vital Lady
Men

• Rejuvenation for Men
• Vital Man
Testosterone
Growth Hormone

- Increase lean muscle (4.4 lb)
- Decrease in fat
- No increase in strength
- Increased diabetes
- Increased arthritis
- Recombinant DNA
Growth Hormone

- Deep sleep (50%)
- Ghrelin (hunger hormone)
- Weight lifting (not endurance)
- Estrogen (cortisol inhibits)
- L-Arginine (pyroglutamate)
Circadian Cortisol Profile

Free Cortisol

- 8 AM
- Noon
- 4 PM
- Midnight

Reference Ranges
Patient Results
Case of Mysterious DHEA

51 y.o. perimenopause, low progest.,
Fatigue, mild hot flashes

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<tr>
<th>Date</th>
<th>DHEA</th>
<th>Testosterone (DHT)</th>
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<td>9/09</td>
<td>4 (3-10)</td>
<td>33 (15-75)</td>
</tr>
<tr>
<td>12/09</td>
<td>25 ✆ ✆</td>
<td>75 ✆ ✆ ✆</td>
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</tbody>
</table>
DHEA Excess

DHEA

Testosterone

DHT ♀  Estradiol ♂
Bioidentical Hormone Cream Overdose

Estradiol--- >99 (<20)

Progesterone-- >1000 (<500)

FSH—124 (< 125)

LH—170 (< 30)