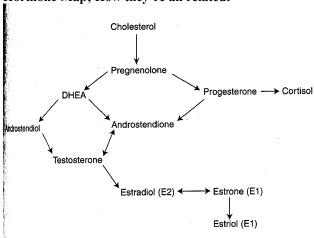
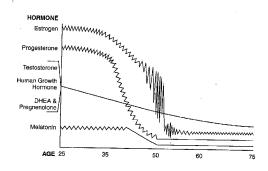
### ANDROGENS & Bio-Identical Hormone Replacement Therapy

R. J. Oenbrink DO 12/04

### Hormone Map; How they're all related:



### SEQUENCE OF SELECTED HORMONE PRODUCTION IN THE BODY



#### AGE-RELATED DECLINE OF HORMONES

Estrogen: 30% drop by age 50, then sharp drop with fluctuations in menopause.

Progesterone: 75% loss from age 35 to 50, then continuing decline.

Human Growth Hormone, DHEA, Pregnenolone, Testosterone: 36% loss from age 25 to 50, followed by an additional 50% loss by age 75.

Melatonin: Small decline from age 25 to 40, followed by sharp drop.

## **Testosterone Benefits**

- 1. Stamina
- 2. Healthier stronger muscles
- 3. Less body fat/more lean body mass
- 4. Stronger bones
- 5. Feeling of security, stability, optimism
- 6. Increased Libido/orgasmic power
- 7. Higher nitric oxide to improve blood flow/keep vessels more dilated
- 8. Less plaque build up in blood vessels
- 9. Improved balance and eye-hand coordination
- 10. Aggression, Alopecia, Acne can all result from "Testosterone Toxicity"

# **Testosterone Deficiency Symptoms**

- 1. Flabby weak muscles
- 2. Hair loss
- 3. Lack of energy & stamina

- 4. Loss of balance/coordination
- 5. Indecision
- 6. Poor libido/sex drive
- 7. Poor body image

# DHEA (DiHydroEpiAndosterone) Deficiency

- 1. Stress
- 2. Lack of stamina
- 3. Intolerance of loud noises
- 4. Constant Fatigue
- 5. Poor mood
- 6. Decreased immunity
- 7. Memory loss8. Lack of pubic hair
- 9. Poor abdominal muscle support
- 10. Dry skin & eyes
- 11. Decreased sex drive
- 12. Impaired immunity
- 13. Hypo/Hyper glycemia
- 14. Start with 5 mg before breakfast and/or lunch, shoot for a blood level around 250 mcg/dl with dose increases every week or two

#### **Melatonin Benefits**

- 1. Improved sleep/less jet lag
- 2. Antioxidant effects
- 3. DNA Protection
- 4. Bone Protection
- 5. Reduces hypercoagulability
- 6. Increases Natural Killer Cell activity
- 7. Enhances peripheral conversion of T4 to T3
- 8. Promotes Zn utilization
- 9. Maintains hair color/slows the graying process
- 10. 5-60 mg at night is a good dose

### **Pregnenolone**

- 1. Improves learning ability/alertness/memory/intelligence/sense of well-being
- 2. Anti-stress effects
- 3. Improved immunity
- 4. 50 mg 1-2 capsules at breakfast

## **Human Growth Hormone (HGH) Benefits;**

- 1. Less fat/more muscle
- 2. Increased energy level
- 3. Increased Immune Function
- 4. Enhanced sexual desire and performance
- 5. Improved skin elasticity
- 6. Loss of skin wrinkles & cellulite
- 7. Improved vision, Memory, Sleep, Exercise performance, Cholesterol profiles, Bone mass
- 8. Faster wound healing
- 9. Lower BP

# **HGH Toxicity**

- 1. Acromegally "Giantism"
- 2. Can cause Edema & Carpal Tunnel problems

<sup>\*\*</sup>To much Testosterone can cause a rapid increase in prostate growth and formation fo prostate cancer

3. Is associated with formation of certain cancers at higher doses, especially leukemia & lymphoma

# **Minimizing Toxic Effects**

- 1. Take it in a cyclical manner as the body makes it, skip a few days/wk to keep your own Pituatary gland actively making it, I recommend skipping it on weekends.
- 2. Don't take to high a dose, keep it in the high-200's to low-300's where it is in 30-40 year old people.
- 3. Replace all of the other hormones in a cyclic manner as well, including Thyroid, Melatonin, DHEA etc.

# **HGH Stimulating Amino Acids (Precursors to HGH)**

Arginine 8 gm Ornithine 2.5 gm Glutamine 2 gm Lysine 1.2 gm Glycine 10 gm

# Bibliography:

Klatz, R. Godman, R. <u>Stopping the Clock Dramatic Breakthroughs in Anti-Aging and Age Reversal Techniques</u> Bantam Books 1997

Klatz, R. Kahn, C. Grow Young with HGH Harper-Collins 1997

Reiss, U, Zucker, M. <u>Natural Hormone Balance for Women Pocket Books/Simon & Schuster Inc NY 2001 Schwartz, E. The Hormone Solution Naturally Alleviate Symptoms of Hormone Imbalance from Adolescence through Menopause Warner Books, 2002</u>

Wright JV. Morgenthaler, J <u>Natural Hormone Replacement for Women over 45</u> Smart Publications, Petaluma CA 1997