


***MEN'S HEALTH***   
**OPTIMIZING ENERGY LEVELS**  
**FOR WORKPLACE PERFORMANCE**

WEDNESDAY 2 OCTOBER 2019 || 17.00 - 18.00 HRS

HILTON SUKHUMVIT BANGKOK HOTEL

*PRESENTED BY ASSIST.PROF.DR. PANSAK SUGKRAROEK*

*FROM BUMRUNGRAD HOSPITAL*

# Revitalize Men's Health Through Optimal Hormones Levels

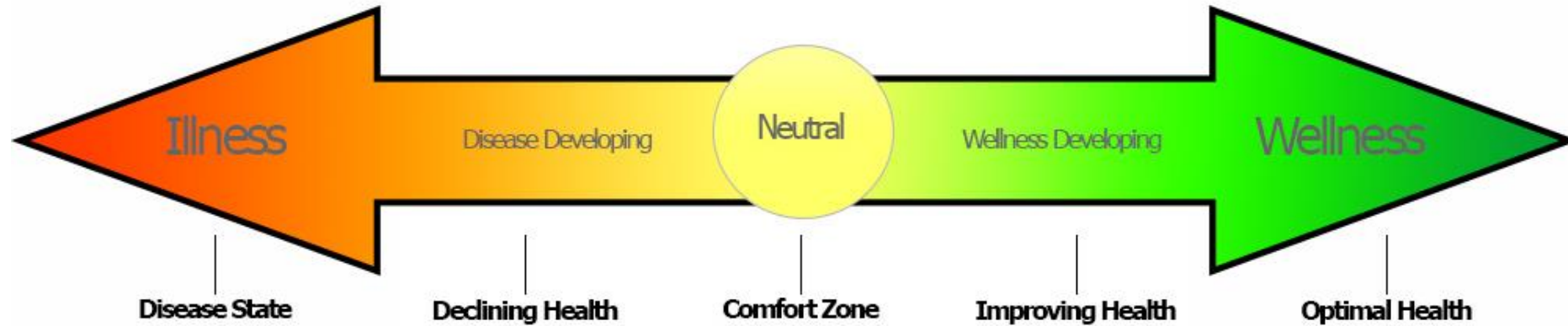
*By Pansak Sugkraroek MD , FRCOG(T)*



**Bumrungrad  
International**  
HOSPITAL

The goal is to prevent the preventable,  
and delay the inevitable,  
which is done by  
slowing down the aging process  
through evidence-based practice.

# ILLNESS-WELLNESS : Paradigm Shift



The header features a horizontal row of approximately 15 orange, semi-transparent circles of varying sizes, some overlapping. The word "HORMONES" is centered in a bold, black, sans-serif font, overlaid on the circles.

# HORMONES

Hormones are a class of regulatory biochemicals that are produced in particular organs by specific cells, glands and/or tissues.

They are transported via the bloodstream throughout the body with the intent of influencing a variety of physiological processes such as growth, metabolism, reproduction and apoptosis.

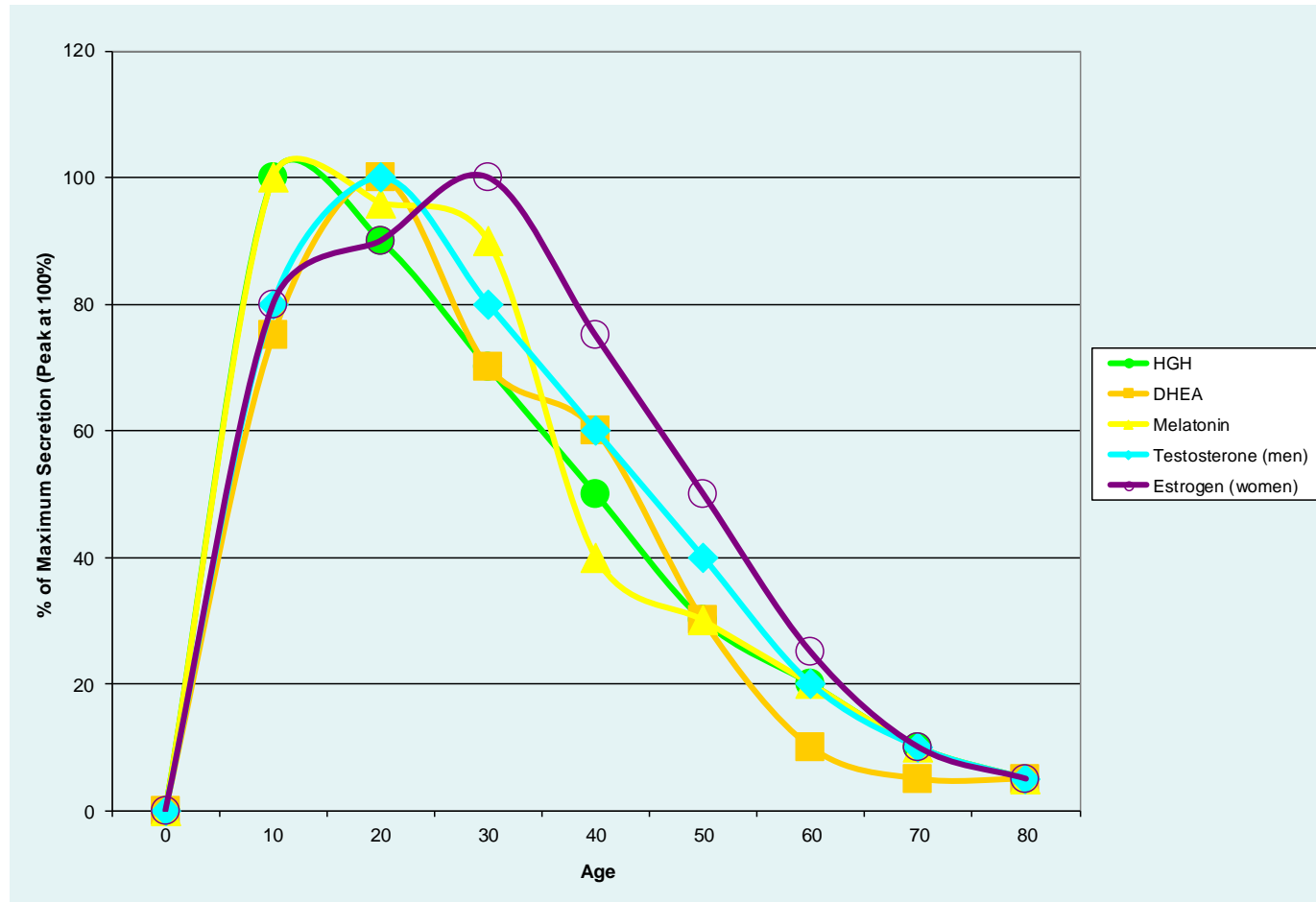
# HORMONE BALANCE

## is one of the foundation of Wellness

- Optimal Hormones level lead to Optimal Health
- Optimal Hormones level have Protective and Vitality effects



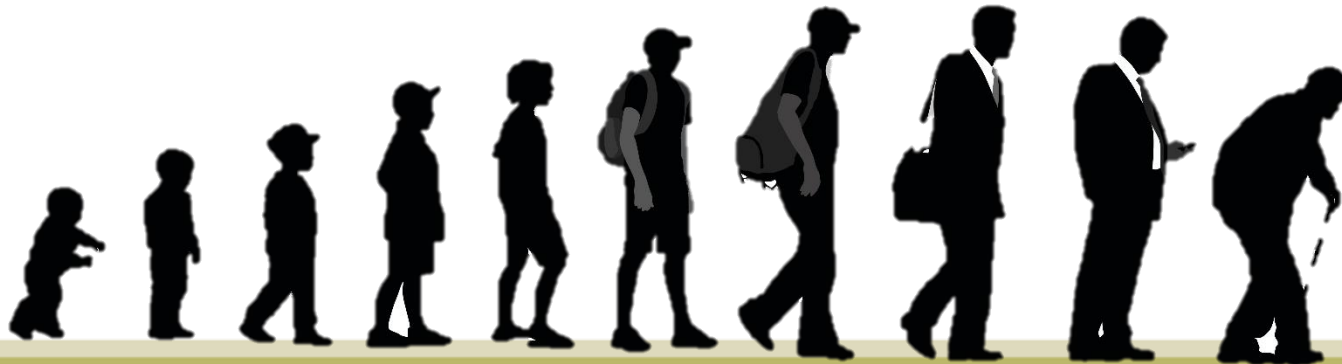
# Hormones decline as we age



# ‘Multiple Hormones Deficiency’ Theory of Aging

- In the human body, the productions, levels and cell receptors of most hormones progressively decline with age.
- In aging, the well-balanced endocrine system can fall into a chaotic condition with losses, phase advancements, phase delays, unpredictable irregularities of daily hormone cycles, in particular in very old or sick individuals.
- Multiple hormone deficits and spilling through desynchronization constitute the major causes of human senescence, and they are treatable causes.

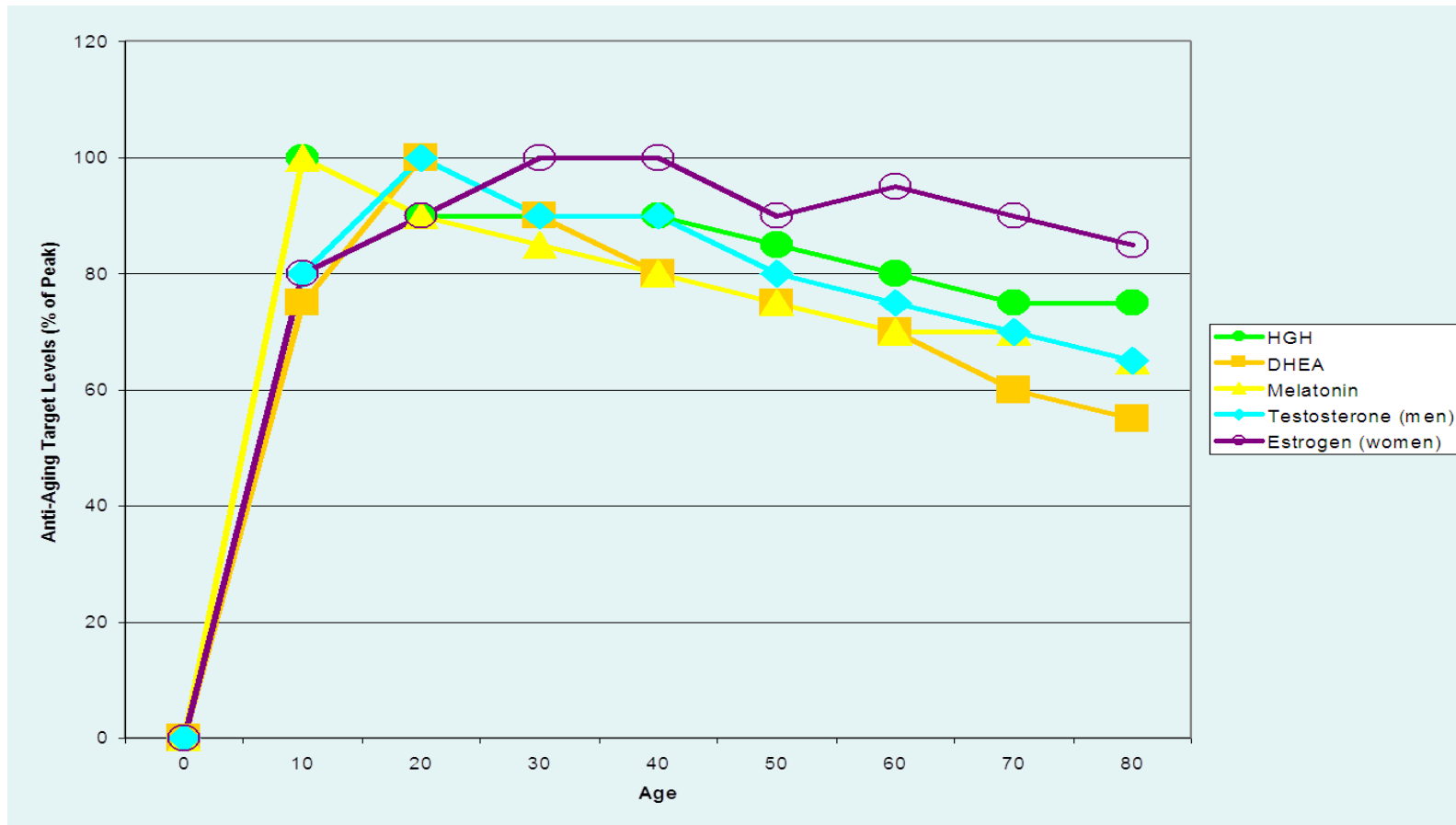
***“Hormones HEAL not CURE “***

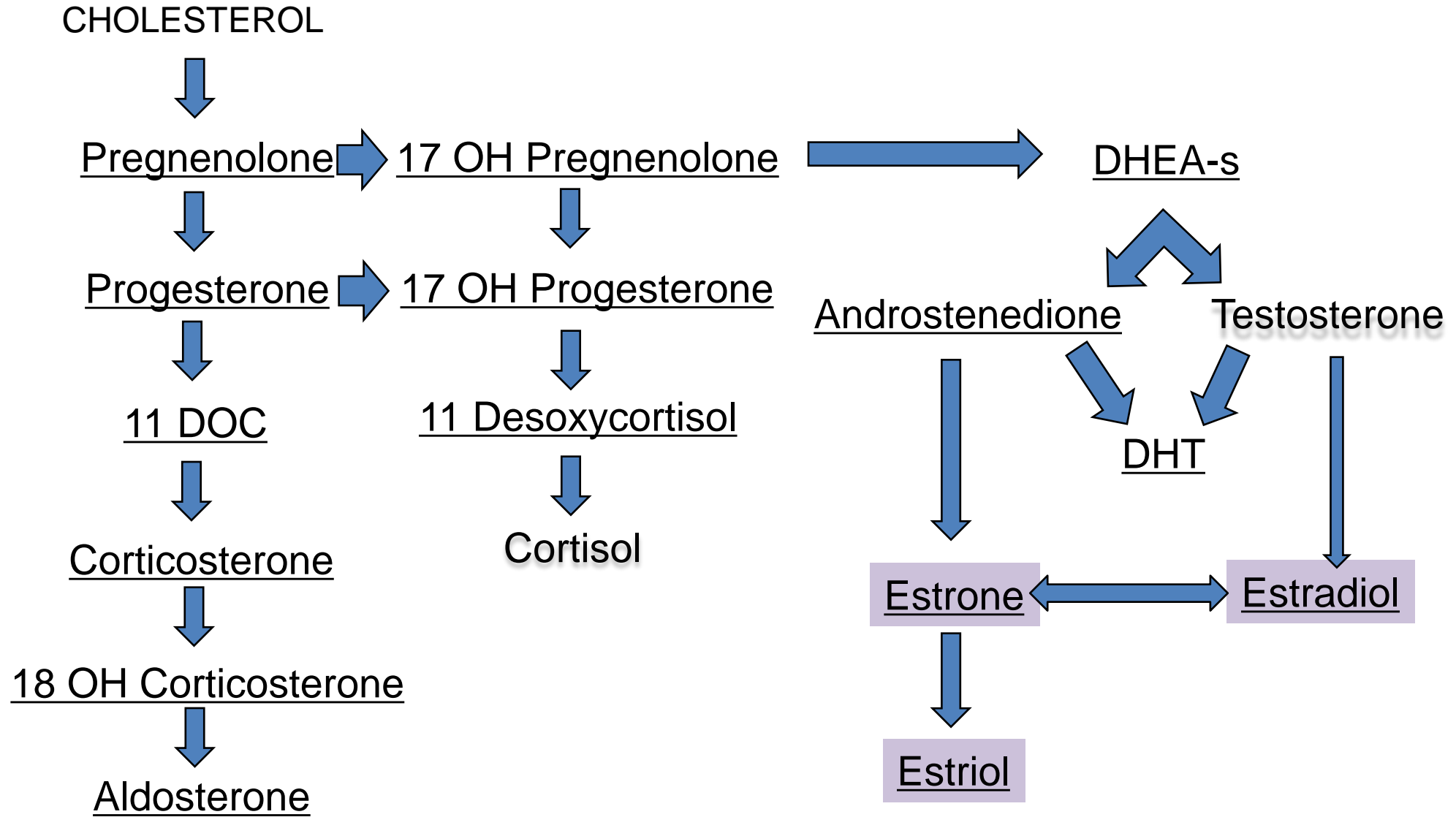


Ann N Y Acad Sci. 2005; 1057: 448-65.



# Restoration Hormones for Vitality





# Bioidentical Hormones for Vitality



- Growth Hormone
- Insulin
- Thyroid hormones
- Parathyroid hormone
- Adrenal hormones (*DHEA*, *Cortisol*)
- Male Sex hormones :  
*Testosterone, Estrogen, Progesterone*
- Serotonin and Melatonin

# Bioidentical Hormone supplements and/or Replacement

- Natural, not synthetic agents
- Bioidentical to Hormones that utilized in human body
- Optimal dosing, not supra-physiologic dosing
- Multiple hormones supplement for balancing (not overriding)
- Regular schedule of consultation follow-up, including lab testing, to monitor outcome and safety



# Optimizing Hormones for Vitality

## Being Well the Natural Way

### Life style change

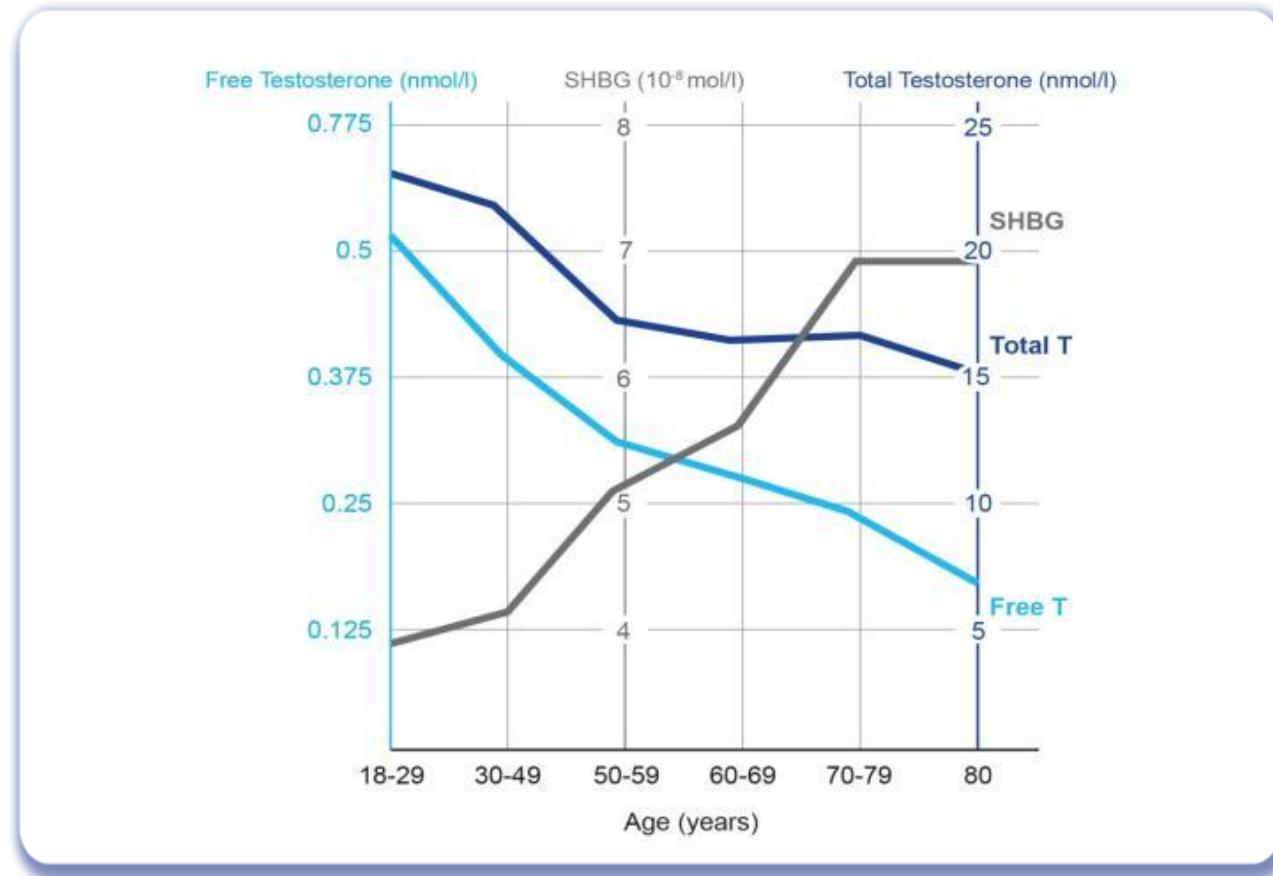
- Maintaining a healthy weight and BMI
- Exercise regularly
- Sleep well / Stress free
- Relaxation response techniques
- Healthy diet with lot of antioxidants

### Antiaging & Rejuvenation

- Bioidentical hormone therapy
- Antioxidant/Micronutrients/Herbal remedies



# Age-related decline in testosterone



Harman SM, et al. *J Clin Endocrinol Metab.* 2001 Feb;86(2):724-31.

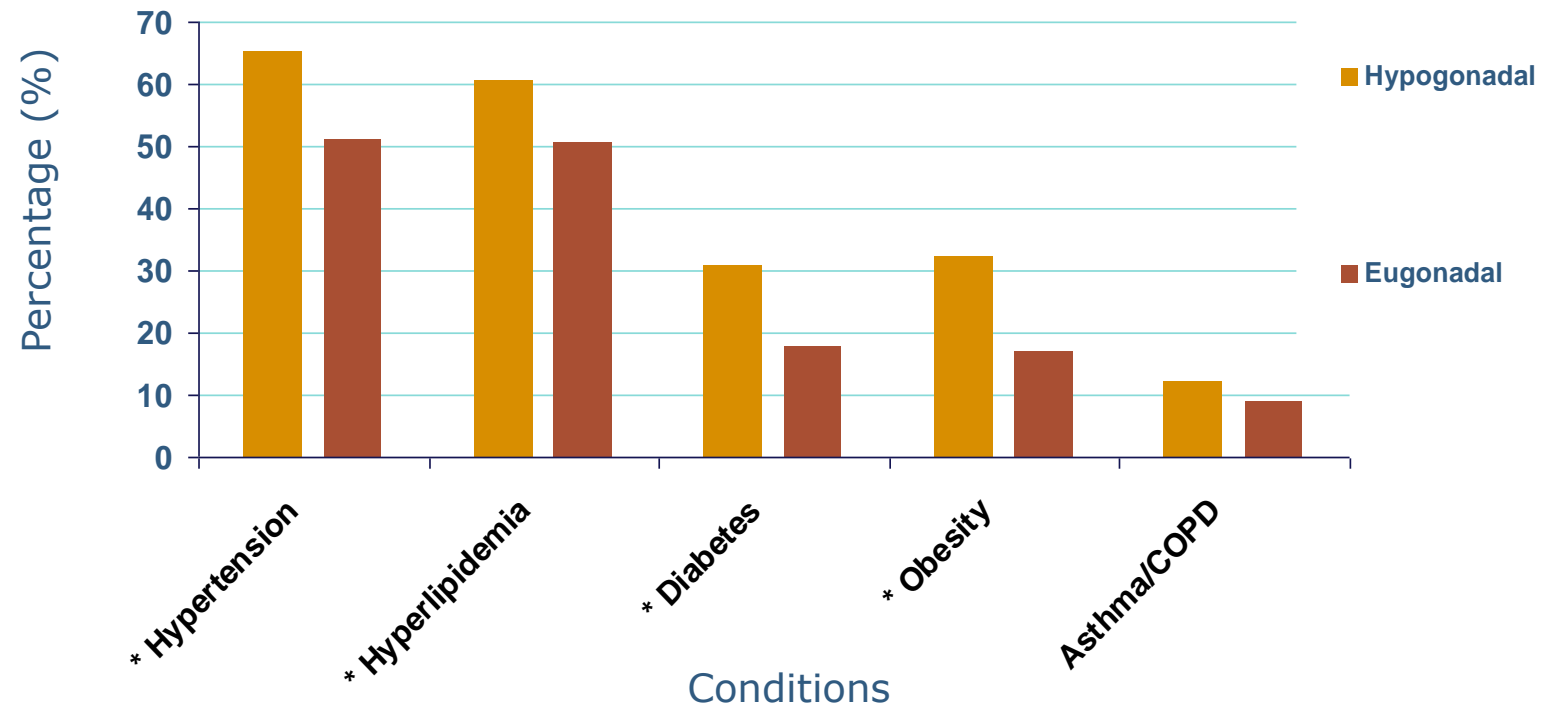
# Clinical Features of Testosterone deficiency

## Signs and Symptoms

- **Decreased Libido**
- **Erectile Dysfunction**
- Regression of secondary sexual characteristics
- Oligospermia / azoospermia
- **Increase Visceral Fat**
- Sweating
- Decrease in muscle mass and strength
- Decrease in bone density & increased risk of fracture
- **Fatigue**
- Loss of sense of well-being
- **Depressed Mood**

# Co-Morbidities Occur More Often in Men WITH Testosterone deficiency (HIM Study)

Data from 2165 men aged  $\leq 45$  yrs seen in primary care practice



Mulligan T, Frick MF *et al.* *Int J Clin Pract.* 2006; **60**:762-769.



# Testosterone Therapy: Testosterone Values

## 2010: US Endocrine Society

- Substitution required with levels below

TT = 300 ng/dl (10.4 nmol/L)

FT = 50 pg/dl (0.17 nmol/L)



**Bhasin S, Cunningham GR et al. J Clin Endocrinol Metab, June 2010, 95(6):2536–2559.**

# Bioidentical Testosterone Therapy

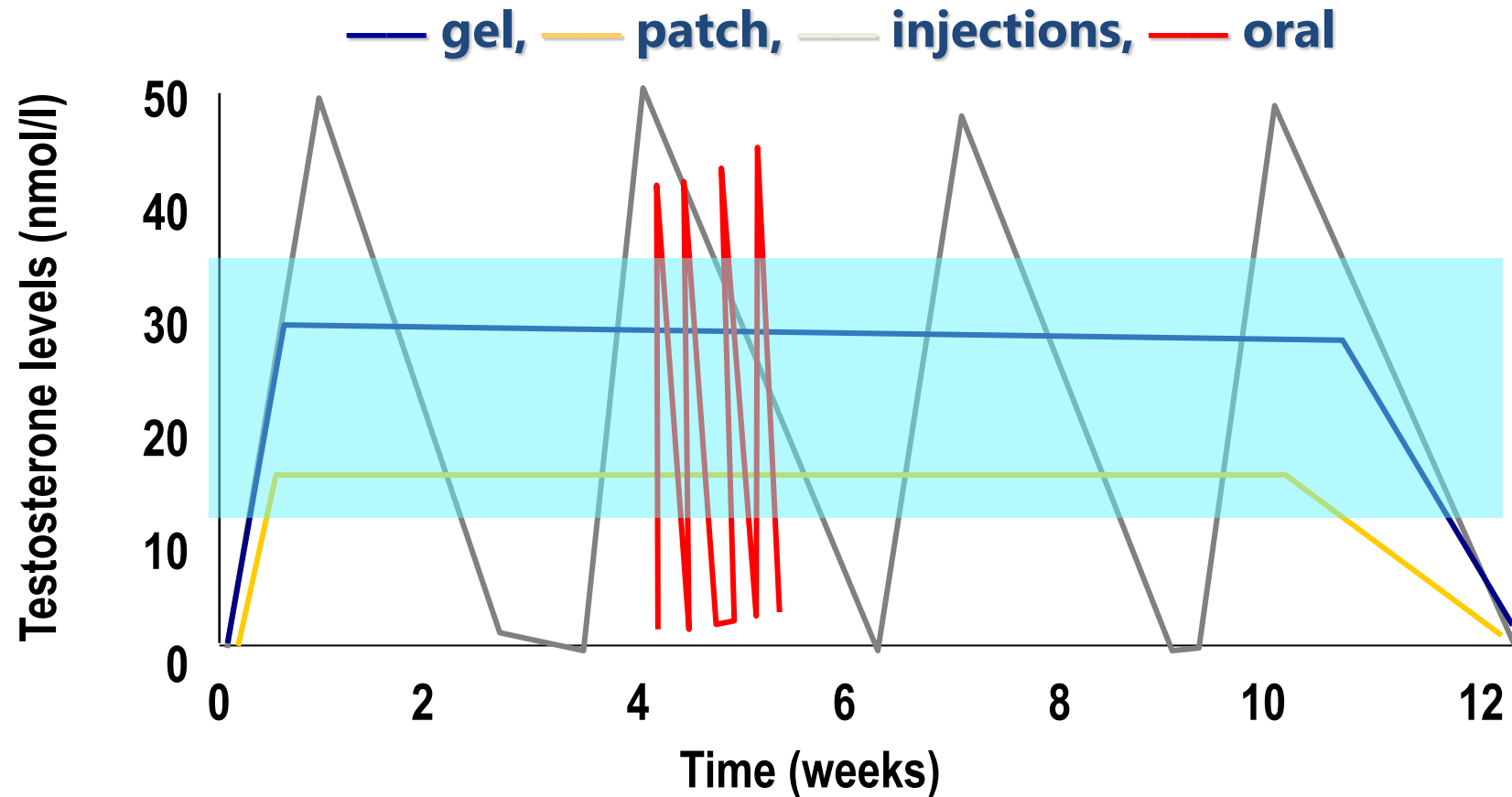
- Optimally, testosterone therapy should:
  - raise circulating testosterone levels to ***optimal physiologic level***
  - provide a daily testosterone release similar to normal endogenous production
  - reproduce fluctuations that match the ***circadian rhythm***
  - deliver serum testosterone that can be converted at tissue level to its metabolites at the desired concentrations
  - have ***little or no negative effects*** on the prostate, liver, lipid profile, or cardiovascular system
  - **convenient**
  - ***enable flexible dosing*** and, if required, be possible to ***easily/rapidly discontinue***

Gooren LJ, Bunck MC. *Drugs*. 2004;64:1861-1891.

# Available Testosterone Therapy on the Market



# Testosterone delivery Pharmacokinetics of actual marketed products



# TRT: for whom?

- TRT is indicated in men diagnosed as hypogonadal and in whom no contraindications exist
- Diagnosis should be based on the presence of signs/symptoms of T deficiency and unequivocally low serum T levels
- TRT is contraindicated in men with:
  - prostate cancer
  - PSA > 4 ng/ml
  - breast cancer
  - severe sleep apnea
  - hematocrit > 50%
  - severe lower urinary tract symptoms due to BPH
  - As TRT may suppress sperm production, it is not recommended in men who wish to retain fertility

•Bhasin S, et al. *J Clin Endocrinol Metab* 2010;95:2536-2559.

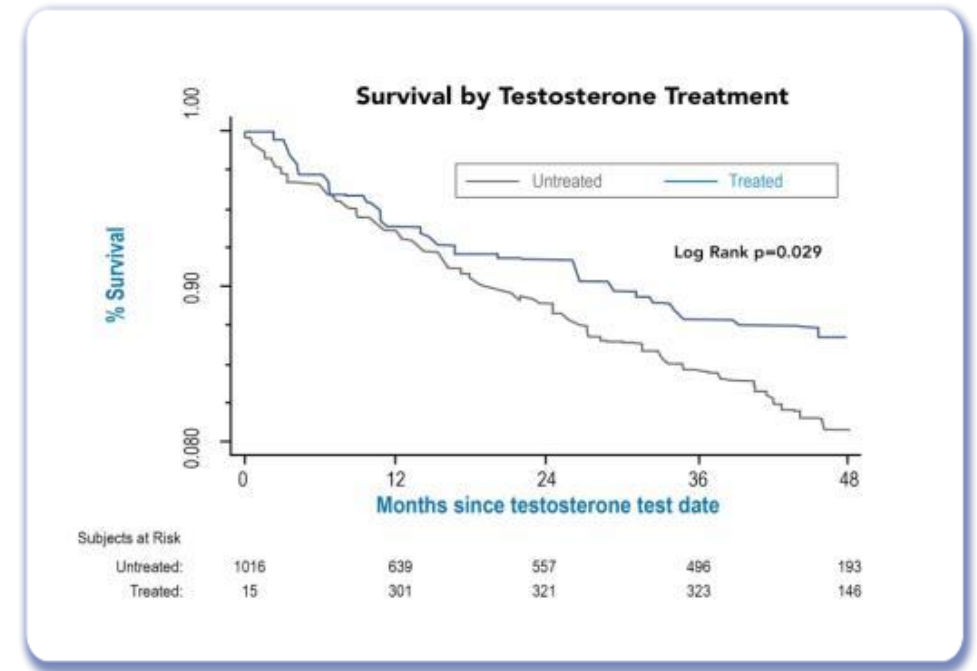
# Adverse effects linked to TRT

- Erythrocytosis
- Prostate changes
- Leg oedema and worsening of heart failure
- Reduced sperm production and infertility
- Acne, oiliness of skin
- Breast tenderness
- Induction/worsening of obstructive sleep apnoea
- Gynaecomastia
- Growth of breast cancer
- Male pattern balding
- Formulation-specific effects

Weak evidence of association with TRT

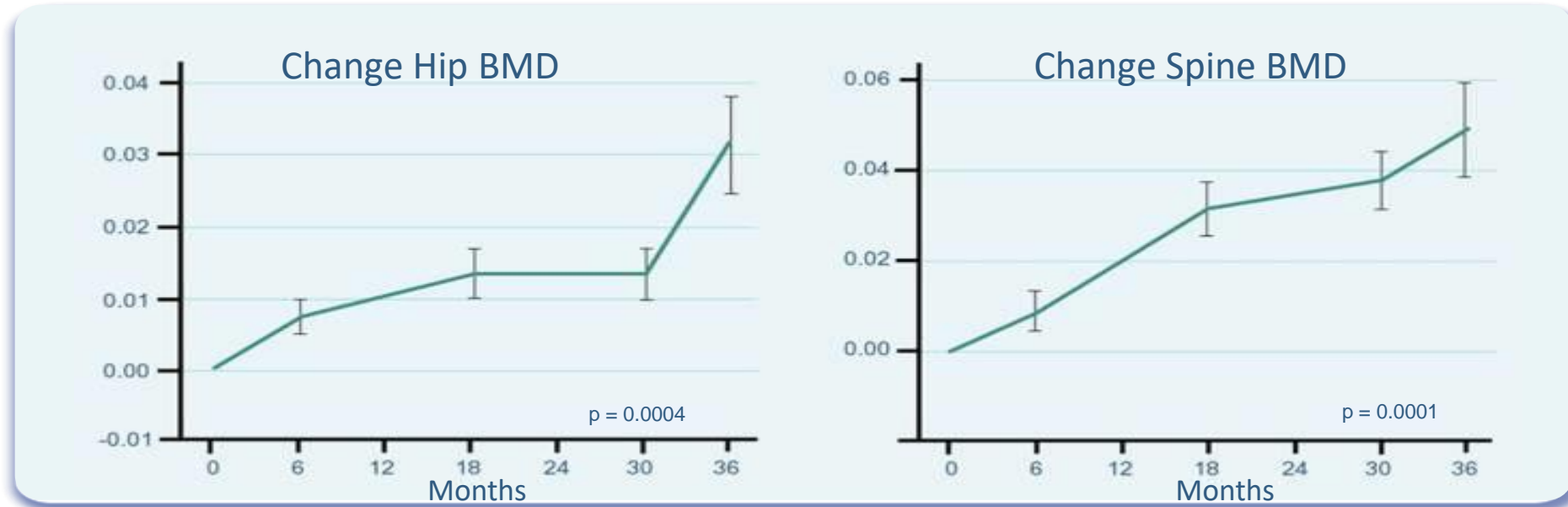
# Testosterone Therapy and Mortality

- Observational cohort of 1,031 males >40 years old
- Testosterone treatment was associated with **LONGER SURVIVAL TIME** compared with no testosterone treatment
- Overall mortality in testosterone-treated men compared with untreated men was 10.3 and 20.7% ( $P < 0.001$ ).



- Shores MM, et al. *Clin Endocrinol Metab.* 2012;97:2050-2058.

# Effects on Bone Mineral Density (Results from 3 Years Long-Term Study)



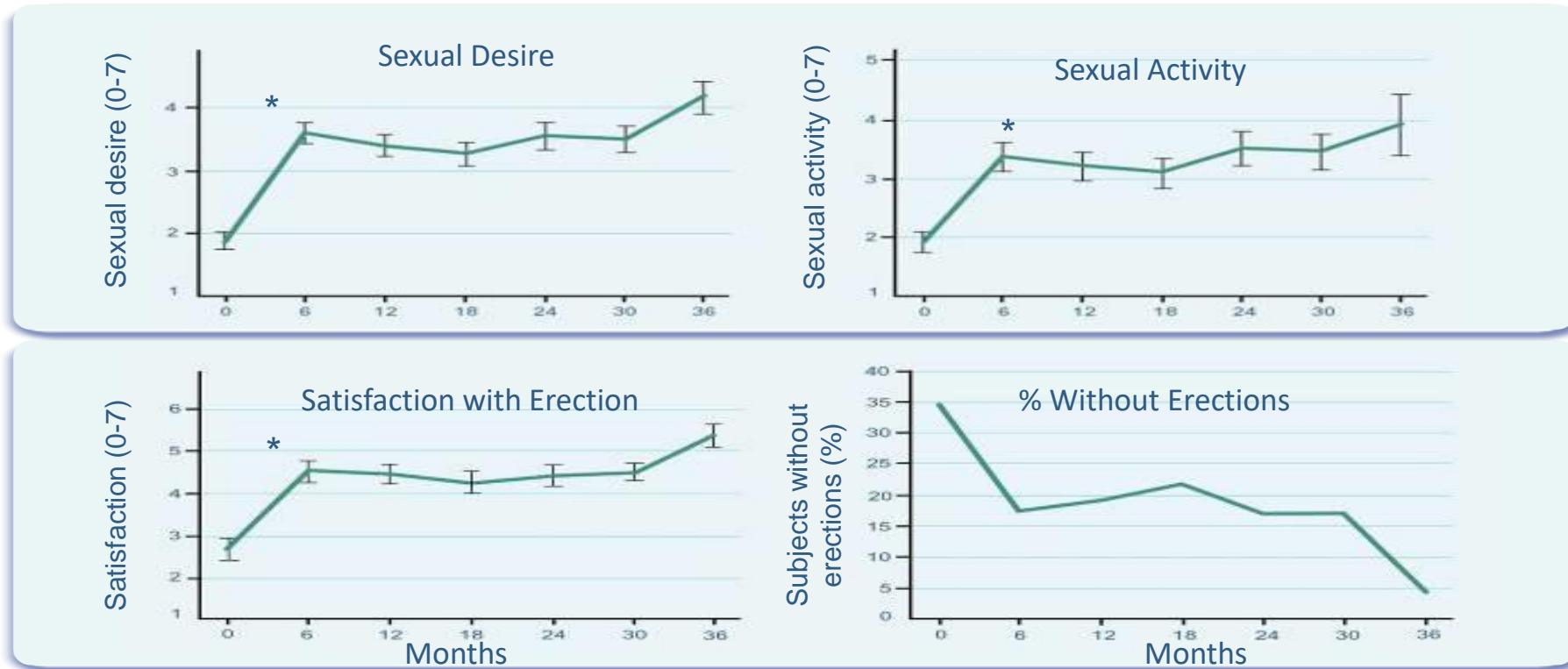
Wang C, Cunningham G *et al.* *J Clin Endo Metab* 2004; **89**:2085-98.



# Effects on Sexual Function

(Results from 3 Years Long-Term Study)

“Sexual function improved significantly and was sustained (p=0.0001)”

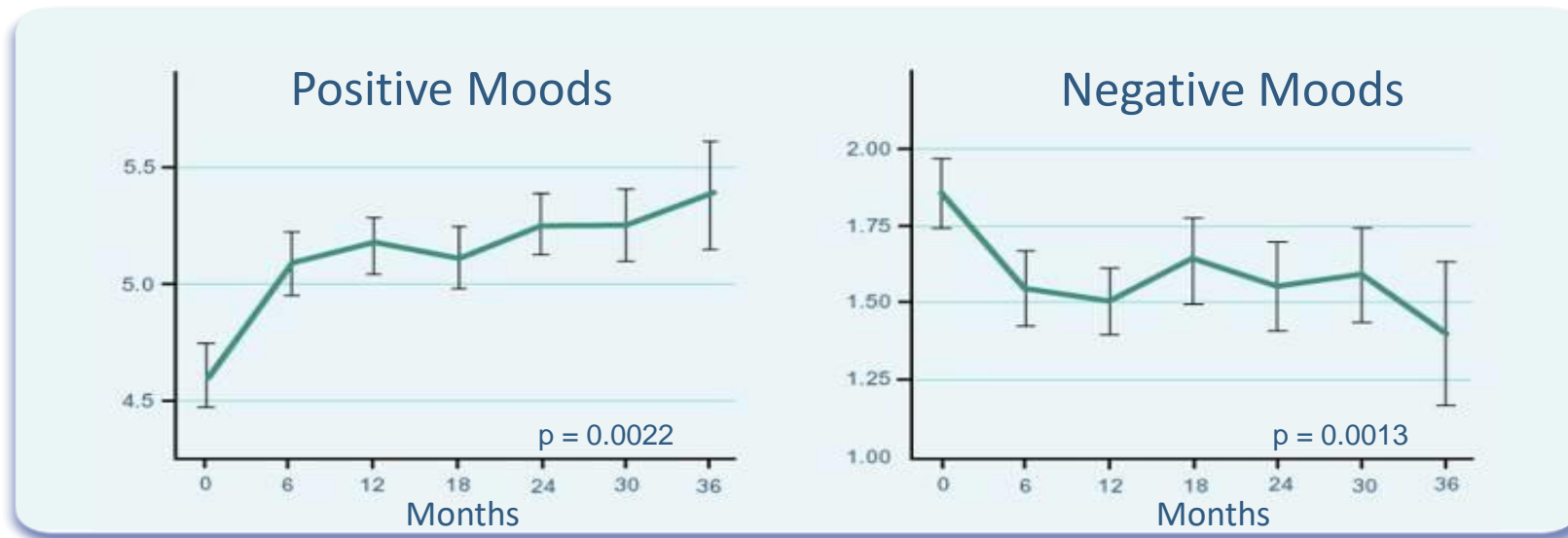


Wang C, Cunningham G et al. *J Clin Endo Metab* 2004; **89**:2085-98.

# Effects on Mood

(Results from 3 Years Long-Term Study)

“Sexual function and mood parameters improved rapidly and were maintained”

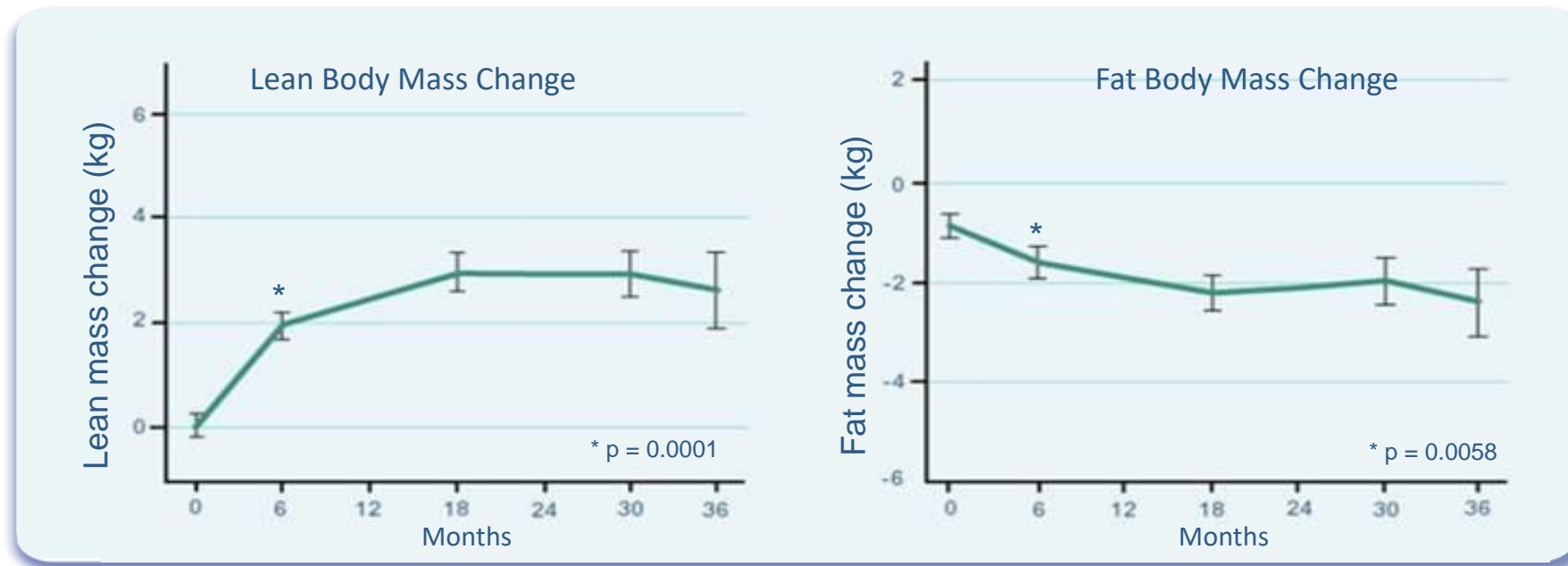


Wang C, Cunningham G et al. *J Clin Endo Metab* 2004; 89:2085-98.

# Effects on Body Composition

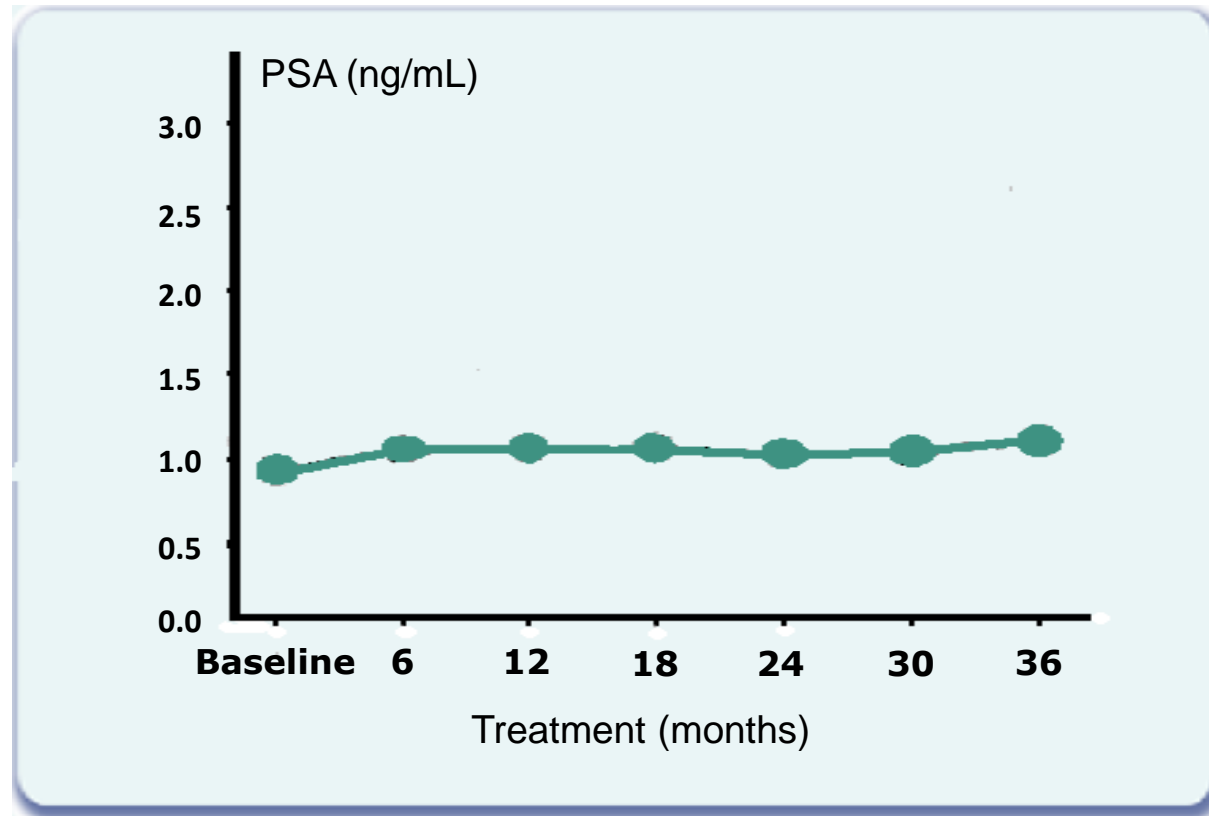
(Results from 3 Years Long-Term Study)

“Lean and fat body mass changed significantly from baseline”



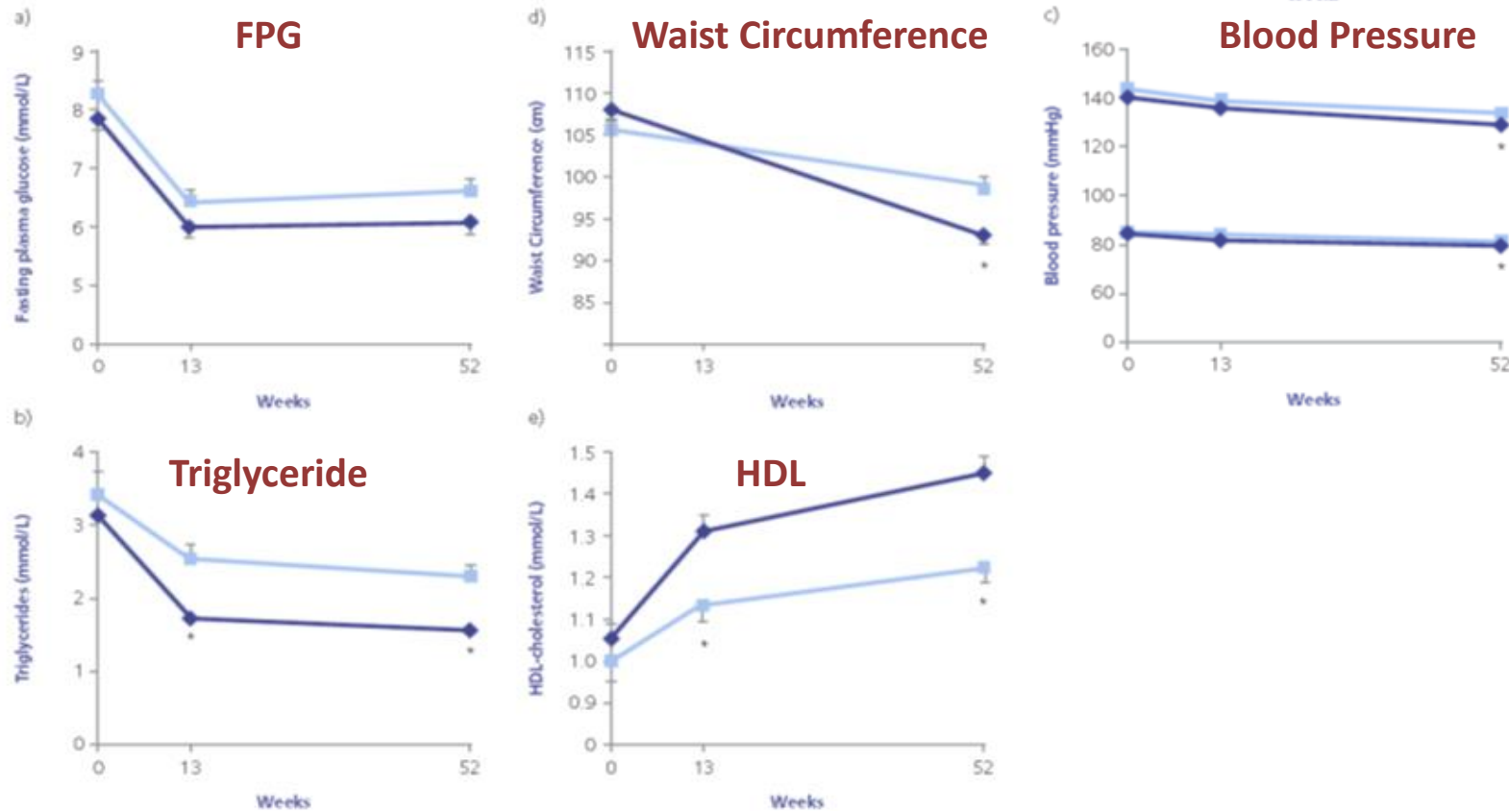
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# Evolution of Prostate Specific Antigen (PSA) by Duration of Treatment in Long-Term Study (Final)

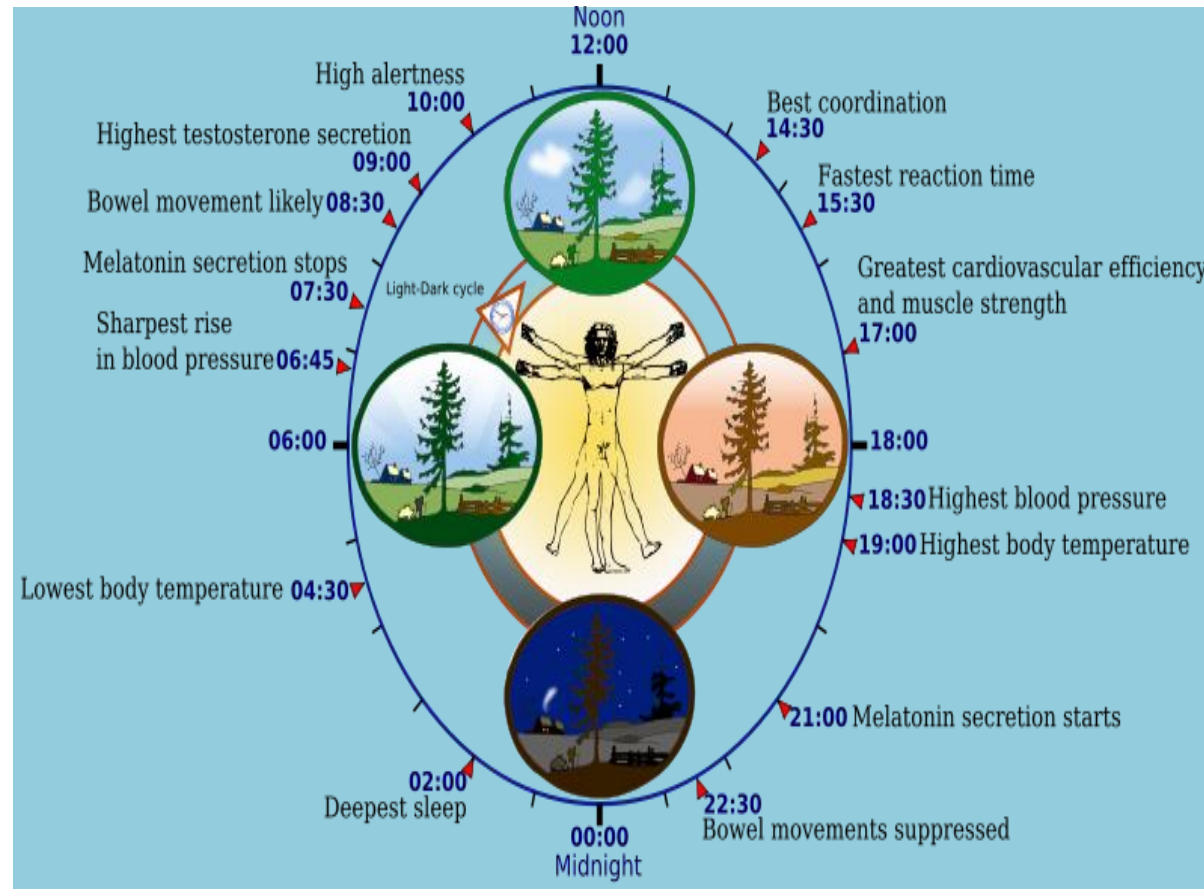


Wang C, Cunningham G *et al.* *J Clin Endo Metab* 2004; **89**:2085-98.

# Components of Metabolic Syndrome improve after 52 weeks of treatment



# The Diurnal Biological Clock

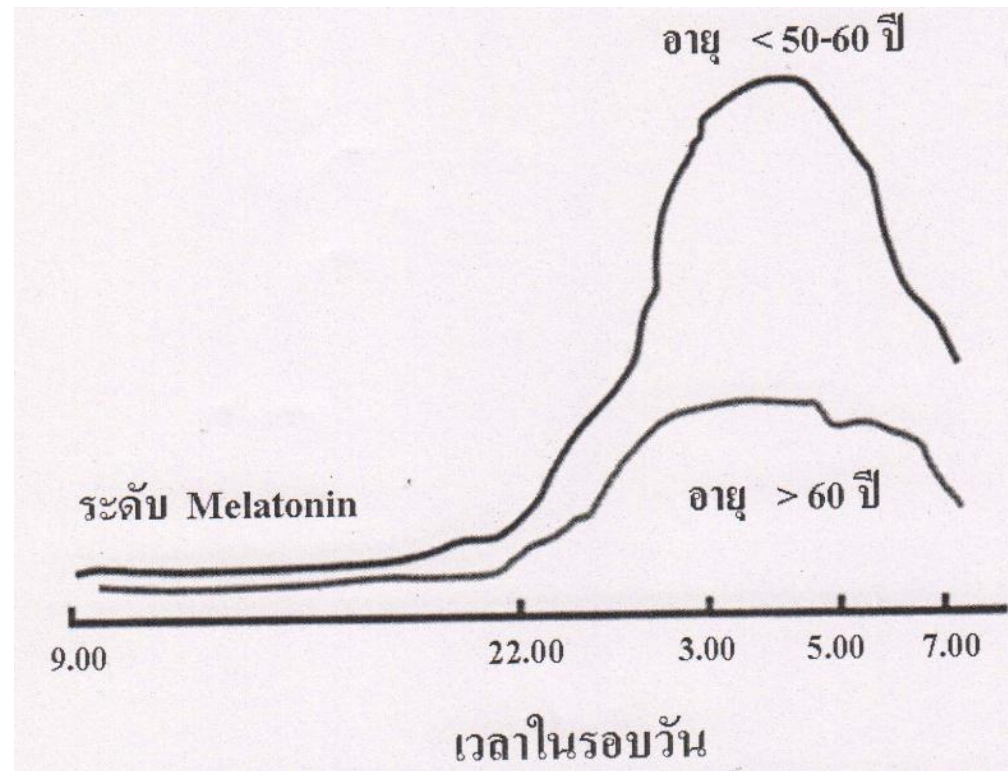


# Sleep, Rhythms, and the Endocrine Brain: Influence of Sex and Gonadal Hormones.

Surprising findings that androgens, acting via androgen receptors in the master “circadian clock” within the suprachiasmatic nucleus, modulate photic effects on activity in human point to novel mechanisms of circadian control.

Mona JA ;The Journal of Neuroscience. <sup>1</sup>Department of Pharmacology and Experimental Therapeutics and Program in Neuroscience, University of Maryland School of Medicine, Baltimore, Maryland 21201-1559,2011

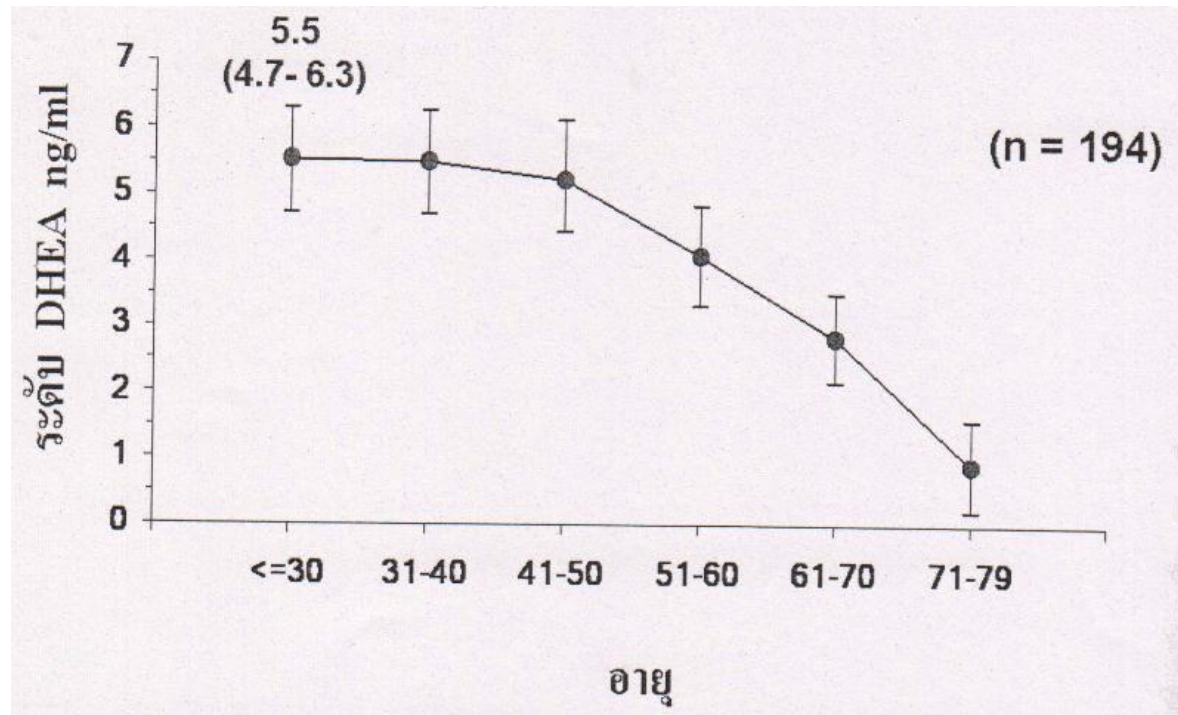
# Melatonin level in different age



Level of Melatonin decrease as we aged

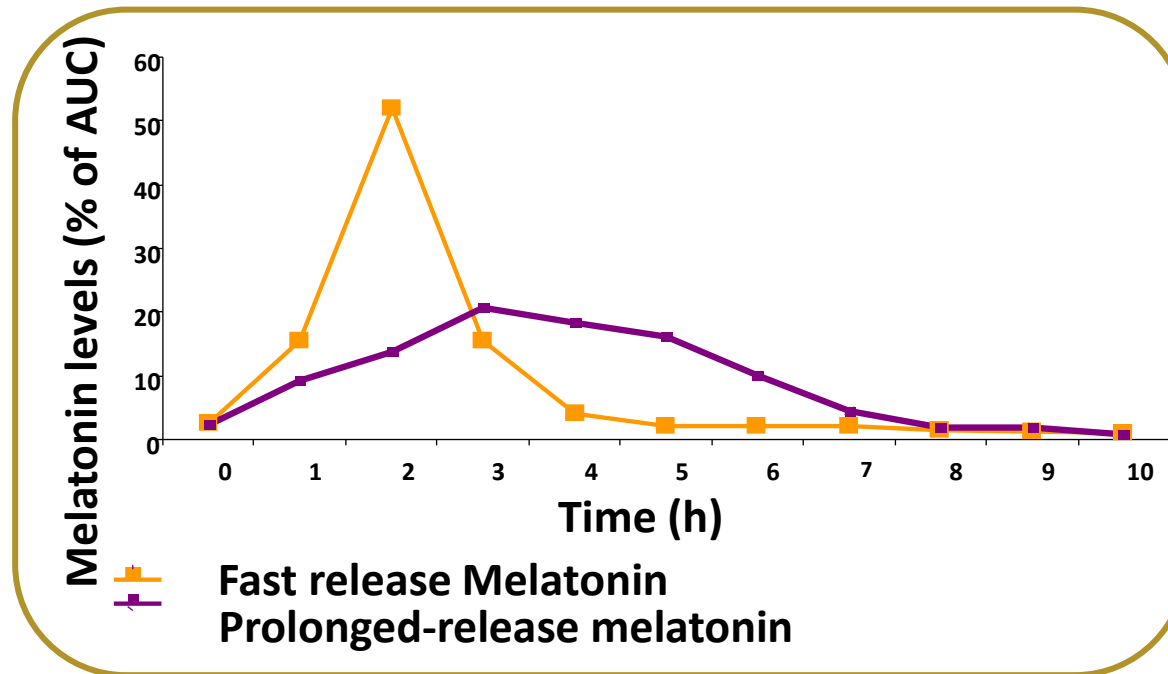


# Level of DHEA-S decrease as we age




# Sleep well with melatonin

- Immediate-release melatonin has a rapid onset to high levels and is rapidly metabolized
- Prolonged-release melatonin circumvents both the build-up of high levels and the fast clearance of melatonin by releasing it over a predefined extended period of time



EPAR, Assessment report for Circadin. Procedure No. EMEA/H/C/695

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