



# Smart Life Forum

Stan Field

*The Steroid Hormone Maze:  
Understanding their Physiological Effects*

Cubberly Community Center  
4000 Middlefield Road, Room H1, Palo Alto, California

September 11, 2003 at 7:00 pm

## Meet Stan Field

Stan Field is a long-time member of Smart Life Forum and has given many fine presentations. Stan Field has a BS in chemical engineering and an MS in meteorology. His chemical engineering career was in the oil and petrochemical industries. In 1993, he retired from Stanford Research Institute where he had been Director of Energy Programs. Since that time, he has been avidly studying biochemistry and physiology with the aim of staying healthy despite the ever-increasing odds of age-related decline.

## The Steroid Hormone Maze - Understanding their Physiological Effects

Stan will cover this topic for both men and women in five parts:

- Biochemistry
- Hormonal System
- Physiology of Estrogens
- Physiology of Androgens

- Physiology of Cortico Steroids

There will be 11''x17'' handouts for each of these topics. Three of these are discussed below:

**Physiology of Androgens** : Male aging is associated with a steady decline in androgens. These male hormones are: testosterone, dihydrotestosterone (DHT), androstenedione and dehydroepiandrosterone (DHEA). In addition, there is a slow steady rise in their estrogens (the same hormones that are in females at different concentrations). The physiological effects associated with male aging and accompanying changes in hormonal status include the following:

- Reduced Libido
- Memory lapses and poor concentration
- Erectile dysfunction
- Heart disease
- Osteoporosis
- Prostate enlargement
- Muscle weakness
- Slower wound healing
- Quicker fatigue

After the age of 50-60, men usually experience increased difficulty in urination because of an enlarging prostate gland that compresses the urethra (the tube coming from the bladder and exiting through the penis). The urine flow is restricted which results in urinary retention in the bladder, greater frequency of urination, hesitancy and dribbling. In addition the enlarged prostate makes ejaculation difficult.

There are two main concerns with testosterone supplementation: Will it cause the prostate to enlarge, and will it cause cancer? Stan will be discussing the two major theories that cause prostate enlargement (Benign Prostate Hyperplasia, BPH). He will also be covering what inhibits this. Unfortunately, no one knows what causes cancer.

### **Physiology of Estrogens**

Estrogens have been called "the Angels of Life and the Angels of Death" by Dr. Cavalieri, a scientist who has spent the last 30 years studying their effects. An excess or deficiency can make a world of difference in a woman's outlook on life, and in her overall health and well-being. For example, too much estrogen and they can feel bloated and oversensitive, have insomnia and gain excessive weight around the hips and buttocks. Too little and they may feel mentally

lethargic, fuzzy, have memory problems and feel depressed.

As a general rule, estrogen promotes cell growth, primarily of the tissues responsible for reproduction. It is this tendency that makes its excess such a promoter of cancer. That is why it is important to use progesterone if a woman has the symptoms of estrogen dominance, or if one is taking estrogen for hormone replacement. Estrogen's stimulatory effect on cell growth makes it useful in wound healing. But, excess estrogen tends to create deficiencies of zinc, magnesium, and the B vitamins.

Estrogen dominance, is a term coined by Dr. John Lee, that describes a condition in which a woman can have deficient, normal, or excessive estrogen, but has little or no progesterone to balance its effects in the body. The symptoms and conditions associated with estrogen dominance are: Acceleration of the aging process, allergies, anxiety and depression, breast or endometrial cancer, breast tenderness, cervical dysplasia, cold hands and feet, decreased sex drive, depression, dry eyes, fatigue, fibrocystic breasts, gallbladder disease, hypoglycemia, infertility, irregular menstrual periods, and many more symptoms.

Physiology of Cortico Steroids: Cortisol is a steroid hormone that governs catabolism (destructive) actions throughout the body. testosterone is a steroid hormone that promotes anabolic (building) actions. What controls cortisol? - The reaction of the autonomic nervous system to acute and chronic stress. In such a case cortisol trumps testosterone.

The American lifestyle of frantic time schedules, sedentary work, fast food, the booming sound of television advertising, loud rock music, scary chaotic driving, road rage, excess email, daily intake of toxic chemicals. Each of these creates a general state of high chronic stress and accompanying high cortisol. This state of chronic stress is reflected in ill-mannered attitudes, the rising rate of obesity (cortisol makes you eat when you are nervous) and chronic diseases (cortisol shuts down the immune system) that pervade our society.

Chronic stress induces the release of cortisol which inhibits the immune system, inhibits collagen synthesis, inhibits serotonin production which creates a dopaminergic dominance and causes insomnia, destroys neurons and increases appetite to the extent that it results in obesity. Does that describe America at the beginning of the 21st century?

Those of us who do not want to be sucked into this societal whirlpool can seek the peace and serenity of nature, music art, meditation, yoga type stretching, reflection of life's accomplishments, contemplation of future achievements, and by being friendly compassionate and understanding. The tranquility that comes with that path allows testosterone to work its magic and is linked with health as reflected in a strong immune system, lower blood pressure,

slim appearance and longer life.

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The most recent issues of *The Felix Letter* are now available on our website!! These newsletters are truly treasures. Smart Life Forum thanks Clara Felix for giving us permission to offer her work on our website.

<http://www.smartlifeforum.org>

Also see the Streaming Video of Tom Levy's Vitamin C talk.

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SLF is working on obtaining funding for a study on MegaC for Acute Hepatitis.

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***Future Speakers:*** at Cubberly Community Center

**October 9**, we will have Dr. Ari Vojdani, Director of the Immunosciences Lab, who will talk on "Relationship of Immune Function and Cancer Based on Cellular Vitamin C Levels "

**November 6** (first Thursday) Dr. Len Saputo on Infrared Scanning and Photonics for Pain Relief and Healing

**December 4** (first Thursday) Dr. Robert Rowen on New Treatment Modalities for Serious Diseases (tentative title)

**January 8**, Dr. Richard Kunin, on Health Implications of Vitamin Related Genomic Mutations

