Psoriasis / Psoriatic Arthritis / Rheumatoid Arthritis Alternative Treatments

Importance of Bio-identical Hormones

The generally accepted mode of treatment of Psoriasis and Rheumatoid Arthritis in allopathy is the use corticosteroids to control inflammation. The choice of treatment is hydrocortisone. This only helps control / mask the the symptom of inflammation, but is not a cure, as it only treats the symptoms and not the real cause of the inflammation. The goal of allopathy is only to treat symptoms and does not address the root cause of the problem. Since the root cause remains unaddressed, the disease progresses inside the body, and the inflammation begins to affect other organs as well and often leads to Psoriatic Arthritis.

An alternative approach would be to naturally enhance the release of corticosteroids within the body itself through the application of bio-identical precursor hormones which can be naturally converted into numerous different corticosteroids as per the daily / hourly requirements of the body.

One of these precursors is the topical use of bio-identical progesterone (which is an OTC formulation).

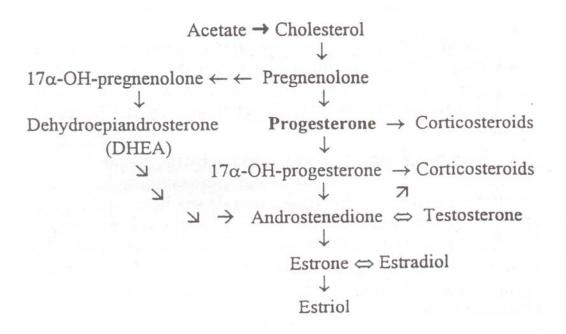
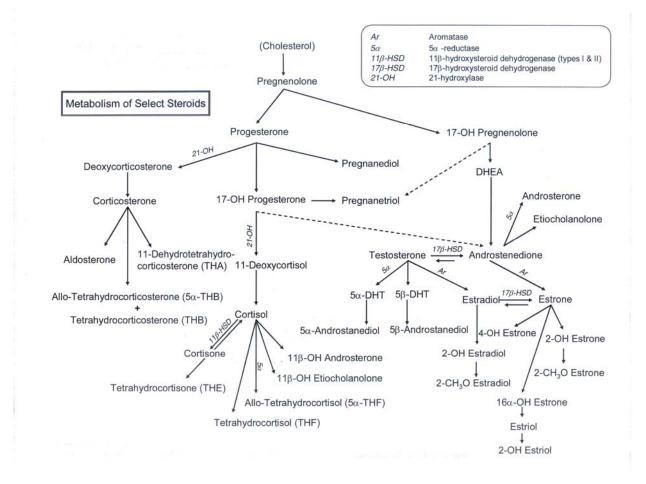


Figure 1. Biosynthetic pathway for sex and adrenocortical steroid hormones

If we study the biosynthetic pathways inside the body, we find that progesterone can be converted into different types of corticosteroids. Most of the hormone synthesis occurs in the liver. So having an efficiently working liver (which has been properly detoxified) would be an added benefit to quickly and naturally raising corticosteroid levels inside the human body. For doing this the liver enzymes, SGPT (ALT), SGOT (AST) and GGPT (Gama GT) should be lowered down to the 15 to 20 U/L range. A good liver detoxification and rejuvenation program should be able to achieve these levels.

If we study a more details chart given below we will find that progesterone can be converted in to a host of different corticosteroids as per the daily and hourly requirements of the body. This would be good strategy to quickly fight inflammation which is the primary cause of psoriasis, rheumatoid arthritis and a host of other auto immune disorders of the body including MS, ALS, etc.



Again the application of precursor bio-identical hormones to fight inflammation should be pursued as a good starting strategy to provide some quick relief to an acute situation.

The long term strategy should be to naturally allow the body to raise its own corticosteroid levels without having to resort to topical application of precursor hormones.

These include intracellular nutritional correction, reducing stress levels and good, deep and refreshing sleep.

The human body follows a biological clock which responds to daylight hours. So getting adequate sleep by retiring early to bed and rising early with the rising sun is one good method. A short (30 to 60 minutes) power nap in the afternoon between 1:00 pm to 3:00 pm is also very useful. One can monitor the natural improvement in serum cortisol levels by checking their blood levels at 8:00 am and once again at 4:00 pm.

The standard reference range and optimum values for cortisol are:

Test	Standard Reference Range	Optimum Levels	
Cortisol, serum 8:00 am	5 to 25 μg/dL	20 to 25 µg/dL	
Cortisol, serum 4:00 pm	2.5 to 12.5 μg/dL (pm values are normally 50% of am)	10 to 12.5 μg/dL	
Table - 1			

For individuals with high stress levels, the cortisol values would test out to be at the lower end of the standard reference range. The incidence of psoriasis, rheumatoid arthritis and other auto immune disorders is higher when cortisol levels are low / stress levels have been high for a prolonged period in the past. Insomnia for prolonged period (possibly due to hormone imbalance) can also lead to low cortisol levels and eventual inflammation and auto immune disorders.

Topical application of bioidentical progesterone is a good short term strategy to naturally raise cortisol levels.

But this has it own downside, as its long term use will invariably lead to a shrinking of the adrenal glands responsible for the production of corticosteroid hormones.

So the long term strategy should be gradually taper off the use of topical precursors like progesterone as the symptoms become less acute and from day one simultaneously focus on good deep and refreshing sleep, short half to one hour power naps in the afternoon, retiring to bed early and rising at dawn with the rising sun. This is a gradual lifestyle change which will help reduce the symptoms of such chronic and painful diseases. Look where the misuse of electricity and night time TV has taken our bodies!

So the starting point of such treatment is to first create a good foundation by detoxification of all the excretory organs of the body, such as kidneys, colon, lungs, skin, and also the liver. This should be followed by rejuvenation of the complete digestive tract and the liver to enhance the production of hormones and their inter-conversion / synthesis into other essential hormones. For more information please download: http://www.space-age.com/Detox.pdf

Do Males Require Progesterone?

High levels of 5-alpha reductase cause vital testosterone to be converted into unwanted dihydrotestosterone (DHT). Excess levels of DHT are associated with baldness, prostate disease, erectile dysfunction, loss of memory and a host of other illnesses as men age. Popular drugs like Propecia, Proscar and Avodart have been designed using this principle. Progesterone is a naturally powerful 5-alpha reductase inhibitor. Being a natural bioidentical hormone, it does not have the side effects of drugs. As a matter of fact because progesterone blocks the conversion of testosterone into DHT, it automatically maintains elevated levels of testosterone in the body. Testosterone helps increase Hair Growth. Men's XL Gel which contains small quantities of Progesterone, therefore besides naturally preventing hair loss works actively to also increase hair growth which drugs like Propecia, Proscar and Avodart are not designed to do. The first thing we need to understand is that men and women have exactly the same hormones only indifferent amounts / ratios. Women have testosterone, androstenedione and even a prostate specific antigen (PSA). Men have estriol, estrone, estradiol, progesterone, luteining hormone (LH) and follicle stimulating hormone (FSH).

As men age their levels of estrogen rise especially the two most dangerous and potent estrogens - estrone and estradiol. A man over 50 literally has more estrogen than his postmenopausal wife! That is scary. It is finally becoming clear that this excess of estrogen in aging men is responsible for a variety of problems such as adiposity, breast enlargement (gynecomastia), many cancers, prostate problems, baldness and other problems that come with advanced age.

Progesterone is the most potent known antagonist to estrogen. It is progesterone that inhibits those harmful effects of too much estrogen more than anything else. As estrogen levels rise in men there is no parallel rise in progesterone.

Any man over 50 may well choose to use a small amount of transdermal natural progesterone daily to offset the excess estrogens in his blood. A dose of approximately 10 mg a day is found effective for most men. It is reassuring to know that progesterone has no toxicity to speak of, especially in these small amounts. It is very safe to use without any known side effects at all. Studies in laboratory animals given very large doses resulted in no side effects.

Shrink your Prostate

The human prostate actually has progesterone receptors and to have a healthy prostate gland your receptors must have enough blood progesterone constantly to keep them filled? Studies on laboratory animals have actually reduced the weights of their prostates just by giving them natural progesterone. It has also been used to treat men. Many men have chosen to use transdermal progesterone based on the overwhelming evidence we have from studies around the world on test animals, DHT, 5-alpha reductase and prostate metabolism. Dr. John Lee, M.D. did extensive work on this during his life time.

How Progesterone works?

Progesterone has many properties which indicate it to be helpful in reducing the symptoms of Psoriasis.

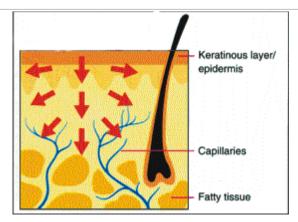
Psoriasis is believed by some to be an auto-immune disease, progesterone has immunosuppressive properties, it inhibits the Th1 cytokine response leading to inflammation and stimulates IL-10 which is anti-inflammatory.

Tumor necrosis factor-alpha (TNF-alpha) plays a central role in sustaining the inflammatory process in the skin as well as in the joints of patients with psoriasis and psoriatic arthritis.

Among the several effects produced by TNF-alpha on keratinocytes there is the induction of expression of MMP-9, a matrix metalloproteinase (MMP). Our findings show the existence of a direct relationship between MMP-9 and TNF-alpha production, strongly suggesting that MMP-9 may play a key role in the skin inflammatory process in psoriasis, while a different role may be attributed to MMP-2."

Human keratinocytes act as targets for progesterone action as they have a high amount of progesterone receptors. Progesterone inhibits the action of matrix metalloproteinases, which would lead to a decrease in the inflammatory response.

Transdermal Application Of Bioidentical Hormone Gels



How do Gels deliver Hormones into the Blood Stream?

A Hormone Gel uses a transdermal method of delivery - allowing the skin to absorb the ingredients within the Gel. This can eliminate or diminish several disadvantages commonly experienced by users of pills and pellets. A transdermal Hormone Gel delivers medication to the body at even, consistent levels over several hours.

Why is using a Hormone Gel better than pills, pellets and injections?

Unlike pills, pellets and injections, which must be taken several times a day or week, the transdermal method requires only a single application. The Transdermal System has also been shown to reduce bloating, gas / flatulence and other gastric disturbances as the ingredients of the Gel bypass the intestinal tract and are absorbed directly into the bloodstream. Best of all, the Hormone Gel can provide a consistent dose of medication for 12 to 24 hours.

Do Hormone Gels cause Slimming of the Body?

Amazingly, Slimming is only one of the many benefits associated with the use of Hormonal Gels. This is how it is done. Hormonal Imbalance results in water retention at cellular level. This causes the whole body to bloat and body dimensions go up - the face looks swollen. The use of Hormone Gel corrects the Hormone Imbalance and the water retention disappears. The body can then slim down. Normally this takes 3 to 4 weeks of continuous use of the Gel to begin showing some encouraging results.

Am I really overweight?

Most men who think they are overweight, actually have a Hormone Imbalance. This causes their Body to swell and they appear to look over weight. This can be easily corrected by properly using Bioidentical Hormones in a regular manner.

Other Benefits:

Regular use of the Hormone Gel will nourish your muscles, remove toxins, and even reduce cholesterol levels; just to name a few!

Directions:

Vary the location where you apply the Gel. Use the index finger to spread the Gel to different area of skin each day.

Safety:

Hormone Gels are 100% all natural and is made with many high potency herbs, minerals and vitamins. They are so safe that you could actually eat them, because they are made from food items.

Adrenal Fatigue, Cortisol Levels and Sleep

Stress and adrenal function affect sleep, particularly the circadian pattern of cortisol secretion by the adrenal glands. Circulating cortisol normally rises and falls throughout the 24-hour daily cycle, and is typically highest at around 8 AM and lowest between midnight and 4 AM. Both high and low nighttime cortisol levels can interrupt sound sleep.

Stress normally causes a surge in adrenal hormones like adrenaline and cortisol that increase alertness, making it more difficult to relax into sound sleep – especially when they remain high or rise and fall irregularly through the night. Frequent or constant stress can chronically elevate these hormone levels, resulting in a hyper-vigilant state incompatible with restful sleep.

If this is the reason for poor sleep, anything that reduces stress and enhances the ability to handle stress may improve sleep. This can include relaxation, breathing and/or meditation techniques, certain yoga postures, healthy lifestyle changes, and stress-relieving life alterations. Refraining from vigorous exercise in the evening and taking time to consciously relax before going to bed may calm the adrenals and help lower cortisol and adrenaline levels.

When the adrenals fatigue, adrenal hormone levels may become low, leading to another possible source of nighttime sleep disruption – low blood sugar.* Cortisol plays an important role in maintaining blood sugar (glucose) levels around the clock. Although blood glucose is normally low by the early morning hours, during adrenal fatigue cortisol levels may not stay sufficient to adequately sustain blood glucose.* Low glucose signals an internal alarm (glucose is the main fuel for all cells, including brain cells) that disrupts sleep so the person can wake up and refuel.

Low nighttime blood glucose can also result from inadequate glycogen reserves in the liver. Cortisol causes these reserves to be broken down into glucose that is then available to the cells. When low cortisol and low glycogen reserves coincide, blood glucose will most likely drop, disrupting sleep.

Waking between 1 AM and 3 AM may indicate low blood sugar resulting from inadequate glycogen reserves in the liver, low adrenal function and cortisol, or both. This is often the culprit when panic or anxiety attacks, nightmares, or fitful, restless sleep occur between 1 and 4 AM.

If low blood sugar is disrupting sound sleep, supporting healthy adrenal function and dealing with the adrenal fatigue may contribute long term to sound sleep. Also having a healthy snack before bed can help fortify the body's nighttime energy reserves. The snack should be one or two bites of food that contains protein, unrefined carbohydrate, and high quality fat, such as half a slice of whole grain toast with peanut butter or a slice of cheese on a whole grain cracker. Eating or drinking sugary, refined foods will only aggravate the problem. Sometimes exercising before bed can help, since exercise tends to raise cortisol levels.

Lack of sleep can be a significant body burden that, in itself, can contribute to adrenal fatigue. Every time the wake/sleep cycle is altered, it takes several days to weeks for the body and cortisol levels to adjust. In fact, sleep ranks with diet and regular exercise as an essential component of a healthy life. People on alternating shifts with less than three weeks between shift changes are continually hammering their adrenal glands and may become very susceptible to adrenal fatigue.

Chronic lack of sleep is now regarded as a health hazard and has been associated with several possible health consequences. These include lowered immunity with increased susceptibility to infections, impaired glucose tolerance, low morning cortisol levels, and increased carbohydrate cravings. Lack of sleep can also elevate circulating estrogen levels, upset hormonal balance, and slow healing and prolong the recovery period. These are in addition to the decreased alertness and concentration that most people experience when missing an inordinate amount of sleep.

The consensus from research and clinical observation is that it is necessary to sleep an average of eight hours per day. Some people need even more in the beginning phases of recovery from adrenal fatigue. A saliva cortisol test done at night and compared with daytime levels and with the test standards for those times will help determine if either high or low cortisol may be interfering with sound sleep. If cortisol is a likely culprit, cortisol levels will be significantly higher or lower than normal for those times.

Insulin and Inflammation

All auto-immune disorders have to do with the health of the immune system of the body. The health of the immune system is linked to selenium. Maintaining serum selenium at optimum levels will help reduce the incidence of auto-immune disorders.

High levels of insulin also increase inflammation in the body. Chromium is another mineral which helps to lower insulin levels to fight inflammation.

The standard reference range / optimum levels for selenium, chromium and insulin are as follows.

Test	Standard Reference Range	Optimum Levels
Selenium	60 to 340 µg/L	300 to 350 μg/L
whole blood, AAS / ICPMS		
Chromium	< 30 μg/L	5 to 10 µg/L
whole blood, AAS / ICPMS		
Insulin, Fasting	2 to 25 μIU/mL	2 to 5 μIU/mL
Insulin, PP (2 hours after meals)	12 to 82 µIU/mL	5 to 10 µIU/mL
Table - 2		

Nutritional supplements chosen to correct selenium and chromium levels in the body must be designed to alter intracellular levels and not just temporarily alter serum levels. The dose administered should be therapeutic and not prophylactic in nature. Blood tests to periodically monitor serum levels should be done after discontinuing their use for a minimum of 7 days, to ensure that we are able to measure the true retained value in the body.

Therapeutic does of elemental selenium, chromium and magnesium are as follows:

Selenium - 400 mcg / day for 2 to 3 months Chromium - 1000 mcg / day for 2 to 3 months Magnesium - 1000 mg / day in 3 to 4 equally divided doses for 6 to 12 months

These are therapeutic doses of nutrition which are specifically formulated to penetrate intracellular spaces, where the nutrition is really required. This is known as Orthomolecular Medicine. Doses mentioned above in mg are elemental weights. There are many other minerals besides the ones mentioned above that also play an important role. Each of these mineral play an important function in the regulation of blood sugar and / or in the production of insulin.

Monitor your serum levels (preferably RBC levels) from time to time to ensure that you are actually raising the mineral levels to the upper end of the Standard Reference Range. Make sure to discontinue mineral supplementation for 7 days prior to drawing a blood sample to ensure that the values tested are the true retained values and are not skewed due to the recent therapeutic doses of supplements you took.

Also check your renal profile to make sure that the serum mineral values reported in your blood report are not falsely elevated due to poor filtration by the kidneys. To ensure your kidneys are working at optimum levels / efficiently, make sure your Renal Profile is as follows:

Creatinine < / = 0.8 mg/dL Serum Uric Acid < / = 4.0 mg/dL BUN > / = 12.0 mg/dL

If these values are at the higher end of the reference range, it is possible that your serum mineral levels will appear at the upper end or above the standard reference range, when they are really deficient.

If your protein intake is very poor, the Blood Urea Nitrogen (BUN) value will be at the lower end of the standard reference range. When this happens, protein based tests like Creatinine will appear low and one may inadvertently pass this off as healthy kidneys when that is not the case.

If in doubt, about the efficient working of the kidneys, do a Cystatin C test. This is a more sensitive test compared to a standard renal profile. Again, this is a protein based test, so ensure adequate BUN levels to correctly interpret the results of this test. Optimum level is:

Cystatin C < / = 0.7 mg/L.

Fasting / PP insulin levels should also be monitored and brought to the 5 to 10 uIU/mL range. Organic chromium is very beneficial to help achieve this.

Vitamins are also necessary, but do not work efficiently in the presence of serious mineral deficiency. So it is important to correct minerals in conjunction with the use of vitamins. Vitamins that are essential for the treatment are the entire B-Complex range of vitamins used in a synergistic manner with numerous minerals and other supporting nutrients.

The key is the synergetic administration of nutritional supplements at intracellular levels. This is known as Orthomolecular Medicine, a concept created by the Nobel Laureate Linus Pauling way back in 1968. Nutrition designed to efficiently raise intracellular levels is known as Orthomolecular Nutrition.

Low cost supplements normally available in health stores are not suitable, as they are prophylactic doses and not designed for therapeutic use. They are also not capable of intracellular penetration. These prophylactic doses only temporarily raise serum levels and do not really help to alter RBC levels.

Once the above corrections are done to the nutritional profile of the patient, the age old techniques of healthy diet, exercise, stress reduction, life style changes, body weight release / fat reduction when in excess, begin to show more positive results and improve their capability.

References for further reading:

1 . Insulin / Body Fat Connection. How to reduce visceral fat? http://www.space-age.com/InsulinFatConnection.pdf .

2. "A scientific review: the role of chromium in insulin resistance" at: <u>http://www.ncbi.nlm.nih.gov/pubmed/15208835</u>.

Insulin and Inflammation

- High insulin levels promote inflammation and speed up your body's aging processes, and insulin resistance is a hallmark of most chronic diseases. Avoiding sugars and high glycemic index foods, and getting regular exercise are two of the most potent ways to help normalize your insulin levels and avoid insulin resistance
- Chronic inflammation is the source of many diseases, including cancer, obesity, heart disease and psoriasis, which essentially makes it the leading cause of death in the U.S.
- Feeling stressed can create a wide variety of physiological changes, such as impairing digestion, excretion of valuable nutrients, decreasing beneficial gut flora populations, decreasing your metabolism, and raising triglycerides, cholesterol, insulin, and cortisol levels.
- While diet accounts for about 80 percent of the health benefits you reap from a healthy lifestyle, exercise and getting proper sleep are also cornerstones of good

health that, if ignored, can have a dramatically negative impact on your health and longevity

• High blood pressure can often be related to your body producing too much insulin. Many with hypertension can normalize their insulin / blood pressure through simple lifestyle modifications, such as avoiding sugars and high glycimic index foods, exercising regularly and optimizing your vitamin D levels.

If your goal is to reduce inflammation in the body, to help reduce the severity of psoriasis, it is important to stick to larger gaps between food intake and not have numerous small meals throughout the day.

For more information on Insulin / Body Fat Connection and how to lower insulin levels, please download:

http://www.space-age.com/InsulinFatConnection.pdf

Reducing Inflammation with Nano Gold

Gold has been known in allopathy for this anti-inflammatory and analgesic properties for the last over one hundred years.

While gold salt were injected into the body in the past, the technology of generating gold nano particles has developed to a point where, with a fraction of the doses used in the past, it is now possible to use gold as an anti-inflammatory agent.

Nano gold can be administered orally or applied topically.

For oral administration, 1 cup (120 mL/4.0 oz.) of 10 ppm nano gold (equivalent to 0.8 mg on gold nano particles) per day (or twice a day if conditions are acute) is adequate.

For topical application, 30 ppm concentration nano gold can be sprayed on the affected area every 3 to 4 hours when conditions are acute and thereafter once or twice a day.

Nano gold should be freshly prepared and sprayed on or taken orally. In case of acute inflammation, it may be advisable to apply nano gold in the form of a professionally prepared gel, with deep penetrating properties.

For more information on how nano gold can be freshly prepared in the privacy of your own home or in a clinic please visit:

http://www.space-age.com/gold.html

Reducing Inflammation with Serratiopeptidase

Seerratiopeptidase is a high potency anti-inflammation enzyme. This can be used to reduce inflammation in acute phase of psoriasis.

Vitamin D and Sulfur in Psoriasis

Vitamin D (1,25(OH) 2D) is one of the most potent substances to inhibit proliferation of both normal and hyperproliferative cells and induce them to mature. It is also recognized that a wide variety of tissues, including colon, prostate, breast, and skin have the enzymatic machinery to produce 1,25(OH) 2D. 1,25(OH) 2D and its analogs have been developed for treating the hyperproliferative disease psoriasis."

Sulfur has been found to benefit the skin and cysteine itself is found in large quantities in the skin. It is used for healing wounds, burns and the intestine. It is also the precursor to glutathione, the body's most powerful antioxidant, found in all cells, particularly in the liver. It aids in detoxing heavy metals. Although a non-essential amino acid, it may be essential for people who have malabsorption syndromes.

Vitamin D can be applied to the skin and can be combined with progesterone gels for topical application.

Role of Zinc in Psoriasis

Zinc is second to iron as the most abundant trace element in the body. Most zinc is in the skeletal muscle (60%) and bone (30%). It is involved in almost all aspects of metabolism.

Zinc is a component of more than 100 enzymes associated with various metabolic processes. People with **zinc** deficiency will generally suffer from **digestive** disturbances, especially difficulty **digesting** protein. This is because **zinc** is necessary for producing strong enough stomach acids. If the food isn't broken down properly, then nutrients in the food don't get absorbed into the body.

Zinc is an essential element; it is a critical cofactor for carbonic anhydrase, alkaline phosphatase, RNA and DNA polymerases, alcohol dehydrogenase, and many other physiologically important proteins. The peptidases, kinases, and phosphorylases are most sensitive to zinc depletion. Zinc is a key element required for active wound healing.

Zinc levels are found to be consistently low in persons suffering from psoriasis. High levels are zinc are present in skin scales that fall off.

When zinc is one of the causes of psoriasis, we find that psoriasis responds well to therapeutic doses of zinc when administered at intracellular levels.

Zinc is required for the proper functioning of the adrenal glands which are responsible for maintaining proper cortisol levels. These natural corticosteroids also help to reduce inflammation in the human body.

Test	Standard Reference Range	Optimum Levels
Serum Zinc (Females)	65 to 256 μg/dL	200 μg/dL
Serum Zinc (Males)	75 to 291 μg/dL	250 μg/dL
RBC Zinc	822 to 1571 μg/dL	1500 μg/dL

Therapeutic doses of prescription strength intracellular zinc are as follows: Zinc elemental weight: 60 mg bid for 4 to 8 weeks.

{Recommended Daily Allowance (RDA) = 15mg; Optimum Daily Allowance (ODA) = 60mg; Therapeutic Dose (for rapidly removing serious deficiency) = 100mg to be taken twice a day; to be given for a short period (typically 4 to 8 weeks), while regularly monitoring Serum but preferably RBC (Intracellular) Zinc levels}.

Zinc excess is not of major clinical concern and does not produce direct toxicity problems. Much of this zinc passes through the gastrointestinal tract and is excreted in the feces. The excess fraction that is absorbed is excreted in the urine.

Blessings, Pramod Vora Medical Scientist & Holistic Educator Health Counselor to Doctors International Faculty Member Anti-Aging Medicine SpaceAge ® Anti-Aging Center 92 Corporate Park, Ste. C #705 Irvine, CA 92606 USA Tel: +1 - 949-861-8164 E-mail: consult2008@space-age.com Internet: http://www.space-age.com http://www.facebook.com/pramod.vora100 http://www.facebook.com/pages/SpaceAge-Anti-Aging-Center/154567131289336 http://www.linkedin.com/pub/pramod-vora/11/89/aa5 Spaceage2010 (for video consultations by prior appointment)

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