

Protocol for Hypothyroidism

Recent Developments in the Treatment of Hypothyroidism

Please read this report carefully if you are presently taking **Levothyroxine Sodium** (Synthroid / Eltroxin / Thyronorm) in order to maintain a reasonable value of TSH in your thyroid blood report.

Recent improvements in formulations at numerous Compounding Pharmacies worldwide have made available a more potent formulations for the treatment of Hypothyroidism and this advanced formulations is now being offered by our Compounding Pharmacy for not only lowering TSH (Thyroid Stimulating Hormone) levels, but simultaneously increasing both T4 (**Levothyroxine Sodium**) and the more potent T3 (Liothyronine Sodium) levels

Levothyroxine Sodium (Eltroxin / Thyronorm / Synthroid) is basically the T4 Hormone which helps to suppress TSH levels. The goal is to keep the TSH below 5.5 $\mu\text{IU/mL}$ as per the older standards being followed by numerous pathology labs. worldwide As per international standard of preventive medicine, now being followed for more than a decade, the norm is to maintain TSH below 2.0 $\mu\text{IU/mL}$. Above this level, numerous symptoms of Hypothyroidism become more pronounced and the quality of life deteriorates badly. Optimum levels of TSH being followed at our health center is 0.5 $\mu\text{IU/mL}$. At this level weight increase is not only controlled but in most cases reversed and quality of life and sense of well being goes up substantially.

The human body converts T4 to its more active form T3 in the presence of numerous other nutrients, some of which are an organic form of iodine and selenium. Sufficient levels of T3 alone help in weight loss and reduction of body fat. There is no guarantee that the body will be able to successfully convert T4 to T3 on its own, as many other factors affect this conversion. This inability of the body to reliably convert T4 to T3 has traditionally been the primary cause of no relief being experienced by Hypothyroid patients during the past few decades. Their body weight continues to gradually increase along with increased doses of T4 hormone. This has been the normal prognosis of Hypothyroid patients.

Till quite recently, the pharmaceutical companies did not know how to produce T3 hormone and ship it out in tablet form.

Due to recent developments at our Compounding Pharmacy, we are now able to ship out special formulations for Hypothyroid patients containing both naturally occurring T3 and T4 which are synergistically formulated with other supporting Orthomolecular Nutrients like an organic form of iodine, selenium and amino acid tyrosine. These nutrients are specially designed to penetrate intracellular space (inside the cell wall) and help in the efficient conversion of T4 to its more active form T3.

We have observed that such formulations are effective in significantly lowering your present dose of Eltroxin / Thyronorm / Synthroid medication and help to greatly improving your Thyroid blood test results while simultaneously giving better relief at weight loss and body fat reduction.

Thyroid Test (units)	Standard Reference Range	Optimum Value (Preventive Medicine)	Target for Weight / Fat Loss
Thyroid Stimulating Hormone / TSH (µIU/mL)	0.30 - 5.5	0.1 - 2.0	0.1 - 0.5
Free T3 (pg/mL) (pmol/L)	1.7 - 4.2 3.5 - 6.5	3.0 - 5.2	4.5 - 5.0
Free T4 (ng/mL) (pmol/L)	0.7 - 1.8 11.5 - 22.7	1.3 - 2.3	1.5 - 2.0

A special protocol has been developed which we have successfully implemented at our Health Center during the past few years. These formulations besides improving blood hormone levels, have helped to substantially bring down the cost of treatment for Hypothyroidism while simultaneously giving relief to symptoms of Hypothyroidism.

There is more information on Hypothyroidism including some case studies on our website at: <http://www.space-age.com/hypothyroidism.html>

Please go through our sample protocol, and if you should like to discuss this further, please do get in touch with me and we will take the next step to get you quickly started.

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

Fax: +1 - 949-861-8165

E-mail: pramod.vora@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>

Cell: +1 - 949 - 307 - 8801 (while in USA)

Mobile: +91 - 98201-11274 (while in Mumbai)



[spaceage2010](#) (for video consultations by prior appointment)

Map: www.space-age.com/Mumbai-Clinic-Map.pdf

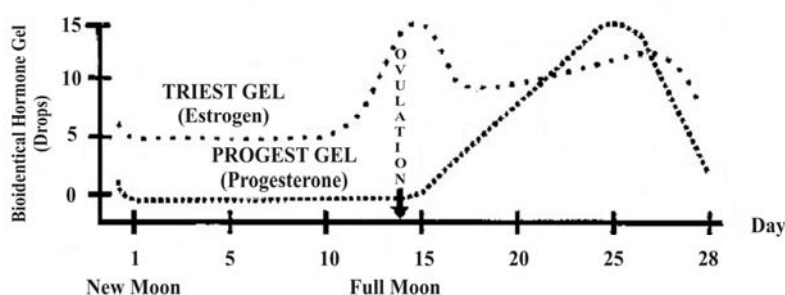
Estrogen Dominance & Thyroid Function

Estrogen causes food calories to be stored as fat. Thyroid Hormone causes fat calories to be turned into usable energy. Thyroid Hormone and Estrogen therefore have opposing actions.

Estrogen dominance inhibits Thyroid action and lowers the rate of metabolism of the Body. Natural Progesterone inhibits Estrogen action.

The symptoms of Hypothyroidism may occur because of Estrogen Dominance (deficiency of Progesterone). Hypothyroidism, which results in weight gain and a host of other symptoms, can be reduced by the presence of Natural / Bio-identical Progesterone in the body.

A Woman's Typical Normal Cycle & Lunar Cycle



Progesterone is naturally produced in the female body only after ovulation and continues till the onset of the periods, when the levels once again drops off to zero. Females suffering from PCOD / PCOS (Polycystic Ovaries) normally have very little or no progesterone being naturally produced in their body and most probably end up with Estrogen Dominance and consequently Hypothyroidism / weight gain.

Many other presumed Thyroid dysfunctions (like falling hair, water retention, loss of memory, confused thinking, depression, dry skin) and Autoimmune Disorders are actually caused by Estrogen Dominance.

The crucial nutrients for Thyroid Hormone synthesis in the body are organic iodine, organic selenium and an amino acid tyrosine. The topical use of a bioidentical progesterone gel can help alleviate the symptoms of estrogen dominance, especially in perimenopausal and menopausal women.

Success in effective weight release can occur once **Hormonal Imbalance** in the body is corrected and proper **Detoxification** and **Rejuvenation** of the body is done to increase the Rate of Metabolism and the natural synthesis of hormones.

SpaceAge®

Anti-Aging Center

9/123 Marol Co-op. Industrial Estate,
P.O.Box 7432

Marol Sagbaug, Andheri (East), Mumbai 400 059 INDIA

Tel: +91-22-2850-3986 / 2850-8653 Fax: +91-22-2850-6214

E-mail: consult2008@space-age.com

Internet: www.space-age.com



<http://www.facebook.com/pramod.vora100>



<http://www.facebook.com/pages/SpaceAge-Anti-Aging-Center/154567131289336>

Cell: +1 - 949 - 307 - 8801 (while in USA)

Mobile: +91 - 98201-11274 (while in Mumbai)



spaceage2010 (for video consultations by prior appointment)

Map: www.space-age.com/Mumbai-Clinic-Map.pdf

A. Detoxification & Rejuvenation Kit - 8 week program (M60Plus)

Follow Calendar enclosed with Kit. Additional copy of Calendar is attached here.

Following additional supplements to be simultaneously taken (in addition to supplements in above Kit / Calendar) as per protocol given below:

Note:

Begin with one or two items from list below and gradually add one more supplement every few days.

Note: For Natural Detoxification

Please implement Abdominal Vacuum Exercise for natural detoxification of the body as per attached note.

Drink 3.0 liters / 96 oz. (250mL / 8.0 oz.) x 12 glasses of water per day at the rate of 1 glass (250mL / 8.0 oz.) per hour only. Do not drink 1.0 liter / 32 oz. (4 glasses) of water at a time.

B. To Increase Rate of Metabolism / Improve Thyroid Health

Organic Selenium (Forte) - (B4 BkF (red) + E or B (green)) X 6 Months
(W/T4-50 + T3-6)

(Red Capsules early morning, immediately on waking up on empty stomach.

Keep minimum 1 hour gap before breakfast).

(Green capsule in the evening or at bedtime).

PLEASE DO NOT DISCONTINUE THIS FORMULATION UNLESS ADVISED TO DO SO.

Organic Zinc (Forte) 100mg - (BkF or L or D) X 2 months

2 drops Organic Iodine (Forte) - (B4 BkF + E) X 2 Months
(W/Se50)

(2 drops in a glass of water (250 mL/8 oz.) twice a day, total 4 drops per day.)

Take early morning before breakfast and once again in the evening (say around 5:00 pm) (Do not take late evening or at bedtime).

(Add drops to a glass of water, stir and drink)

Monitor Basal Temperature twice weekly)

Please monitor your Blood Pressure / Heart Rate every 10 to 15 days. Item H. on page 6 is recommended if heart rate or blood pressure is high before or after you begin iodine supplementation.

Tyrosine (Forte) - (BkF + L or D) X 3 Months
(Take with breakfast and lunch or dinner)

Take ¼ teaspoon of Green or freshly ground Black Pepper Corns twice a day to maintain high Basal Temperature / Rate of Metabolism. Fresh Green Pepper or preserved in brine is preferred.

C. To help reduce Insulin / Body Fat / Appetite / Sugar Craving

Organic Chromium (Forte) - (M + E or B) X # Months

Great way to reduce Body Fat / Weight:

Staircase climbing for 30 minutes per day will result in 1.0 Kg Fat loss every 10 days. Begin with 5 minutes and increase time gradually to avoid discomfort.

Press - ups / Bhujangasana - Cobra Pose X 5 to 15 repetitions

Please engage in Bhujangasana for 5 minutes each day. Follow the Note as attached.

Note: Walk 30 to 60 minutes early morning or evening. Alternately, climb stair case 5 to 30 minutes (increase gradually to reach 30 minutes / day) to help reduce Body Fat and weight.

Lifting weights in Gym will help improve Bone Health.

D. For Improved Digestion of Protein

Pancreatin 500mg - after (BkF or L + D) X 15 days
(Take immediately after Breakfast or Lunch and Dinner)

E. To Increase Proteins in diet

Please increase Proteins in your diet as follows:

1. One large bowl of Mung sprouts. Add diced tomatoes + cucumbers. Add herbs like Mint, Oregano, Thyme, Ginger, etc for flavor.

2. Basan Chillas, Chowli Dosa, Mung Dhoklas, Chowli Dhoklas etc

3. Rajma, Chole, Channa, Chowli, Kidney Beans, Lima Beans, Fava Bean subzis, etc. in the form of subzi.

4. 1 vati thick tur or mung dal with each meal

Reduce carbohydrates - rice, potatoes, etc

Avoid red meats as they are rich in fats.

Lean meats like chicken (breast but not legs or wings) and fish are better source of proteins.

Please do not eat fruits rich in sugar such as bananas, chickoos, mangoes, grapes, etc. Fruits permitted are those for diabetic patients are water melon, papaya, pears, guavas, apples, etc which are low in sugar.

F. For Thyroid Imbalance due to Estrogens Dominance

0. 5 gram (groundnut size) Progest XL Gel - 1 to 2 hours B4 (B) X 3 months
(W/D3-60K IUs)
(Apply after bath, if any, at bedtime. Leave on overnight for best result.)

**THIS IS VERY IMPORTANT FOR IMPROVING BONE DENSITY.
PLEASE DO NOT DISCONTINUE THIS GEL FOR MINIMUM ONE YEAR**

G. For Lowering Blood Pressure / Heart Rate & Improving Cardiac Health

2 Magnesium Pro (Forte) 90mg - (L + D) X 6 Months
(W/O B6)

Magna-Pak - II - (M + E) X 6 Months
(W/ B12-0.5 + B6-20 + W/Zn-20 + Si2.5 W/O D3)

Add full glass of water (250 mL / 8.0 oz.) to powder, stir and drink after bubbles finish rising to the surface. **Stir for five minutes to enhance release of bubbles.**

Please drink immediately after powders dissolves completely in water to make a transparent solution. This can take up to five minutes.

VERY IMPORTANT

**Please keep 3 to 4 hours gap between Magna-Pak and Magnesium Pro (Forte).
Please take 2 capsules of Magnesium Pro (Forte) twice a day = total 4 caps.**

Magna Pak also to be taken twice a day morning and evening / bedtime.

Avoid dairy products like Milk, Cheese (Paneer), Yogurt (Curds), Butter milk (Lassi, Chaas), Dhali etc. as they are rich in Calcium which interferes with absorption of Magnesium.

Please discontinue all calcium supplements.

NOTE

Please remember to store Magna Pak sachets under refrigeration in order to ensure full potency. A few sachets can be left unrefrigerated for a few days without loss of potency. This is useful while traveling or for your weekly requirements.

H. For Hair Loss

Beauty XL - (BkF or L + D) X 6 Months
(Do not take on empty stomach)

I. For Low Ferritin Levels & Poor Energy Levels / Reduce Hair Fall

Ferro 100mg - (L + D) X 6 Months

(Stool color will be black when taking iron supplements)

Do not take on empty stomach. Take after meals.

Do not take along with Organic Zinc (Forte)

NOTE:

This is a Standard Protocol developed as indicative Protocol.

This protocol has to be custom designed based on patient's medical history and blood reports.

Doses need to be adjusted from time to time as per periodic evaluation of Thyroid test results.

Normal duration of treatment for Hypothyroidism ranges from 12 to 18 months and varies on a case to case basis, depending upon patient implementation and response of patient's body.

Anticipated weight loss / body fat reductions is 1.0 Kg (2.2 lbs) per month when complemented with a healthy diet and an exercise regime.

ABBREVIATIONS:

A = Afternoon

B = Bedtime

B4 = Before

BkF = Breakfast

D = Dinner

E = Evening

L = Lunch

M = Morning

2 = 2 capsules at a time

(for example: **2** Magnesium Pro (Forte) 90mg - (L + D) means take 2 capsules of Magnesium Pro (Forte) 90mg at Breakfast, Lunch and also at Dinner. Total 4 capsules per day.

NOTE:

Above Program will be reviewed from time to time as per the evaluation of the progress achieved and results obtained.

At the end of each month, please contact with your detailed feedback so that the modification as required can be made to the program.

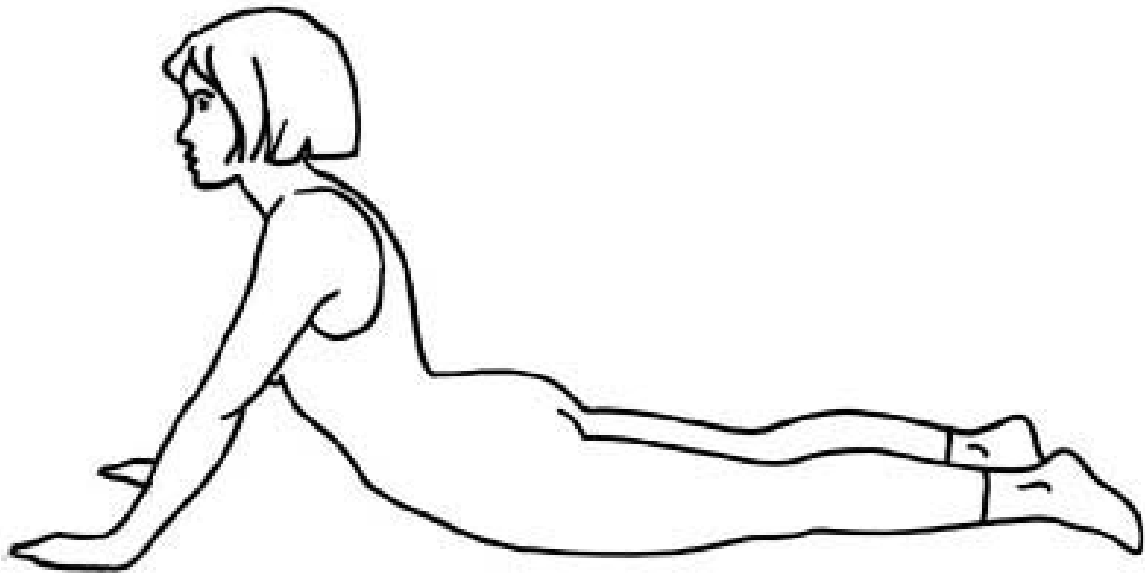
Basal Temperature Test Thyroid Self-Test for Rate of Metabolism

To test yourself for an under active Thyroid, keep an Electronic Thermometer by your bed at night. When you wake up in the morning, place the thermometer in your left armpit and hold it there for about 10 minutes. Keep still and quiet. Any movement of the body can upset your temperature reading. Temperature of the Body rises when you begin moving around. A temperature of 97.5°F. or lower is indicative of an under active Thyroid. Keep a Temperature log for five days in the chart given below.

Menstruating women should also perform test on 2nd, 3rd & 4th day of menstruation. After Ovulation there is a typical 1°F temperature rise in a woman's body. Menopausal women or women with irregular periods can check on any day.

If your temperature is less than 97.5°F please let us know about it right away so that steps can be taken to incorporating some changes in your Program to enable us to remove this area of imbalance from your body.

Chart to Record Basal Temperature (B.T.) / Rate of Metabolism of Body - Alternative to TSH measurement		
Name of Patient: Mr. / Ms.		
Age: years; Height: Weight: Kgs. Male / Female: Weight Increase in 1 year: Kgs. Weight Increase in 5 years: Kgs. Dose of Thyroid Medication taken: Synthroid / Eltroxin / Thyronorm / Other:		
Date of Last Monthly Period:		
Serial No.	Date	Basal Temperature °F.
1.		
2.		
3.		
4.		
5.		
2 nd day of Periods		
3 rd day of Periods		
4 th day of Periods		



Press-ups (Bhujangasana) – Cobra Posture

From the prone position, press up on the hands while the pelvis remains in contact with the floor. Keep the lower back and buttocks relaxed for a gentle stretch. Let the back curve as much as possible.

The 2nd part to this exercise is to ***throw the head back as far as possible to stretch the neck to activate the thyroid gland.***

Start with about 5 repetitions of this exercise two times per day (morning and evening) and as the muscular strength of the arms goes up, you might be easily able to go up to 15 repetitions two time per day without going out of breath.

Regular breathing is important. Inhale when you stretch up and throw your head back to stretch your neck. Breathe out when you relax and lay down on the floor.

This will help to:

- a) reduce abdominal inches;
- b) improve digestion;
- c) increase metabolism and Thyroid function to help promote weight / fat loss
- d) reduce back pains and improve posture

SpaceAge® Natural Health Center

Please Call Health Care Support Help Line: 949—861—8164 for Information & Assistance

Internet: www.space-age.com

E-mail: consult2008@space-age.com

DETOXREJ60

2nd Month Calendar for Detoxification + Rejuvenation Kit

A = Afternoon B = Bedtime BkF = Breakfast D = Dinner E = Evening L = Lunch M = Morning End = Begin new list tomorrow	X 1 = once a day X 2 = twice a day X 3 = thrice a day Meals = with Meals B4 = half hour before Each Row below represents one week; each Box one day of the week.	Digits in Red indicate change in dose or new items added to Program. Introduce new Herbal capsules in a gradual manner.	Enter any other Special Herbs you take in the Calendar below.	Drinking 8 to 12 glasses of water daily helps to remove Toxins . Avoid alcohol. Vegetarian Diet is recommended, but is optional during Detoxification.	Remember to Detox & Rejuvenate your Body once every six months. Record Basal Temp. BT = ° F (maintain B.T. > 97.5 ° F for optimum metabolism)	Age: years Height: ft. in. W = lbs. Fat = %() BP = / BPs = /
Sun	Mon Continue here ↓	Tue	Wed	Thurs	Fri	Sat
Continue End pH = B.T. = ° F	Energizer (M + A) 5th week 2 Super Kidney Care (M + E) Digestive Aid B4 (Meals) 2 to 4 Special Colon Cleanse (B) NOTE: For your convenience doses (E) can be taken any time from Evening to Bedtime.	Continue BP = /	Continue If you did not achieve 2 Bowel Movements - 1 in the Morning and Evening, increase dose of Colon Cleanse gradually to 4 capsules.	Continue A Clean Colon results in a soft well formed stool which floats on water.	Continue Increase dose of Colon Cleanse gradually to 4 capsules to achieve soft well formed stool which floats on water.	Continue pH = B.T. = ° F
Continue End If you did not achieve 2 Bowel Movements (M + B) / day continue 3 to 4 capsules of Colon Cleanse in 2nd week.	Energizer (M + A) 6th week Detoxifier (M + E) 2 LivMax (M + E) Lung Clear (M + E) OPTIONAL: 2 to 4 Sp. Colon Cleanse (B)	Continue	Continue pH = B.T. = ° F	Continue BP = /	Continue W = Kg Fat = %()	Continue
Continue End	Energizer (M or A) 7th week LivMax (M or E) Liver Tonic (M + E)	Continue	Continue pH = B.T. = ° F	Continue	Continue BP = /	Continue
Continue	Continue 8th week	Continue till Sunday	BP = / pH =	W = Kg B.T. = ° F	Repeat this Calendar next month with any balance inventory.	Remember to Detox & Rejuvenate your Body once every six months.

PubMed

U.S. National Library of Medicine
National Institutes of Health

Display Settings: Abstract

Diabetes Educ. 2004;Suppl:2-14.

A scientific review: the role of chromium in insulin resistance.

[No authors listed]

Abstract

Chromium is an essential mineral that appears to have a beneficial role in the regulation of insulin action and its effects on carbohydrate, protein and lipid metabolism. Chromium is an important factor for enhancing insulin activity. Studies show that people with type 2 diabetes have lower blood levels of chromium than those without the disease. Insulin resistance is the common denominator in a cluster of cardiovascular disease risk factors. One out of every five Americans has metabolic syndrome. It affects 40% of people in their 60s and 70s. Insulin resistance, with or without the presence of metabolic syndrome, significantly increases the risk of cardiovascular disease. Insulin resistance is present in two serious health problems in women; polycystic ovarian syndrome (PCOS) and gestational diabetes. Several studies have now demonstrated that chromium supplements enhance the metabolic action of insulin and lower some of the risk factors for cardiovascular disease, particularly in overweight individuals. Chromium picolinate, specifically, has been shown to reduce insulin resistance and to help reduce the risk of cardiovascular disease and type 2 diabetes. Dietary chromium is poorly absorbed. Chromium levels decrease with age. Supplements containing 200-1,000 mcg chromium as chromium picolinate a day have been found to improve blood glucose control. Chromium picolinate is the most efficacious form of chromium supplementation. Numerous animal studies and human clinical trials have demonstrated that chromium picolinate supplements are safe.

PMID: 15208835 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms, Substances

LinkOut - more resources

PubMed

Display Settings: Abstract



Lancet. 2000 Jul 15;356(9225):233-41.

The importance of selenium to human health.

Rayman MP.

Centre for Nutrition and Food Safety, School of Biological Sciences, University of Surrey, Guildford, UK.

Abstract

The essential trace mineral, selenium, is of fundamental importance to human health. As a constituent of selenoproteins, selenium has structural and enzymic roles, in the latter context being best-known as an antioxidant and catalyst for the production of active thyroid hormone. Selenium is needed for the proper functioning of the immune system, and appears to be a key nutrient in counteracting the development of virulence and inhibiting HIV progression to AIDS. It is required for sperm motility and may reduce the risk of miscarriage. Deficiency has been linked to adverse mood states. Findings have been equivocal in linking selenium to cardiovascular disease risk although other conditions involving oxidative stress and inflammation have shown benefits of a higher selenium status. An elevated selenium intake may be associated with reduced cancer risk. Large clinical trials are now planned to confirm or refute this hypothesis. In the context of these health effects, low or diminishing selenium status in some parts of the world, notably in some European countries, is giving cause for concern.

Comment in

[Selenium and human health.](#) [Lancet. 2000]

[Selenium and human health.](#) [Lancet. 2000]

[Selenium and human health.](#) [Lancet. 2000]

[Selenium and human health.](#) [Lancet. 2000]

PMID: 10963212 [PubMed - indexed for MEDLINE]

Publication Types, MeSH Terms, Substances

LinkOut - more resources

Role of Insulin in Reduction of Body Fat / Weight Loss

Lowering Insulin is known to help over weight persons to release weight / body fat by reducing hunger (1).

You may be overweight (have greater than normal body fat composition) because your pancreas releases too much insulin, especially if you store your fat primarily in your abdomen. When you eat, your blood sugar level rises. The higher the blood sugar levels rise, the more insulin is released by your pancreas. Insulin makes you fat by acting on your brain to make you hungry, your liver to manufacture fat, and the fat cells in your abdomen to fill with fat. Abdominal fat is known as **visceral fat**. The treatment for high body fat induced obesity is to avoid foods that cause the highest rise in blood sugar and to take supplements that ensure that your blood sugar levels do not rise too high and stay high for prolonged periods. Avoid bakery products, pastas and all foods made from flour, fruit juices and everything with added sugar. Eat only low sugar content fruits like apples, papaya, pears, guavas, water melon, etc. during the day. Avoid Grapes, Mangoes, chickoos, bananas, sweet lemons, sitafal, etc. as these are very rich in sugar and will raise insulin levels tremendously. Also avoid frequent meals throughout the day as these will cause insulin levels to stay very high throughout the day. In healthy people the insulin levels decline to normal in about 2 hours after ingestion of food. If you eat numerous small meals throughout the day, (every 2 or 3 hours apart) the insulin levels will never get a chance to decline to normal and will end up staying high throughout the day. ***Thus it is possible to start with breakfast at 7:00 am and end up with Dinner at 10:00 pm with numerous meals in between to maintain high insulin levels from 7:00 am to 12:00 am midnight. This means for 17 hours out of the 24 hour day your insulin levels will remain high, thereby causing the rapid and continuous accumulation of body fat.***

After you eat, sugar goes from your intestines into your bloodstream, and then immediately into your liver. Then your liver releases sugar back into your bloodstream to cause your blood sugar level to rise. To keep blood sugar levels from rising too high, your pancreas release insulin into your bloodstream. Insulin makes you hungry all the time and causes your liver to convert extra calories to fat and it constricts arteries to cause heart attacks. You need insulin to keep blood sugar levels from rising too high to cause diabetes, nerve damage, heart attacks, strokes and kidney damage. ***Prescription Strength Organic Chromium, when administered at Intracellular levels, will due to its Therapeutic action, prevents blood sugar levels from rising too high, so that your body doesn't need to produce too much insulin that makes you hungry and causes your liver to make fat*** (3,13,14). Adequate serum chromium levels ensure low insulin levels throughout the day.

Intracellular chromium, when properly delivered at therapeutic dose levels, lowers insulin levels (4), reduces the severity of many of the symptoms of diabetes and can also be used by people who want to lose weight. Since chromium lowers insulin levels, diabetics should use organic chromium designed to penetrate at intracellular levels to lower their requirements for all other prescription drugs used to treat diabetes (6).

People who are diabetic or borderline diabetic have ***Insulin Resistance*** which impairs the ability of the cells to efficiently utilize glucose for energy production. When glucose cannot be utilized efficiently, it causes the blood sugar levels to rise / remain high for prolonged periods and the body releases more insulin which also remains high for prolonged periods.

Thus a diabetic or a borderline diabetic can end up having high insulin levels throughout the 24 hour day. ***It is not unusual to find obese persons with borderline high blood sugar / insulin levels.*** You can enhance ***Insulin sensitivity*** by keeping large gaps between meals and also by lowering the daily calorie intake to 1500 to 1800 calories per day.

Free Testosterone and DHEA levels when brought to Optimum Value can help enhance insulin sensitivity in males and help reduce accumulation of abdominal / visceral fat.

A good Liver Detoxification and Rejuvenation Program which helps lower liver Enzymes (SGPT/ALT, SGOT/AST and GGPT / Gamma GT) levels will help increase bile flow which in turn will help to rapidly digest and breakdown accumulated fats to use as a source of energy for the body.

Women normally having polycystic ovary syndrome, also suffer from obesity, which is more often than not linked to having high blood levels of insulin. Chromium helps these women to release weight / body fat by lowering insulin levels, preventing the further accumulation of body fat and thereby leading the way to metabolizing existing body fat. Lowering insulin levels helps with the reduction of polycystic ovaries (7-12).

Chromium and magnesium are safe dietary supplements, when administered at intracellular levels at therapeutic levels, prevents blood sugar levels from rising too high and staying high throughout the day. You can defeat their good effect by indiscreetly taking foods that causes rapid rise in blood sugar levels – foods with high glycemic index – potatoes, rice for example. So correcting serum chromium and magnesium while eating two bagels daily for breakfast, will not help to lose weight.

We recommend taking Intracellular Chromium and Magnesium with other synergistic supporting nutrients till Serum Insulin levels reduce to an Optimum Level of 5 to 10 $\mu\text{IU/mL}$ both for Fasting and Post Prandial (2 hours after meals).

* Insulin	Std. Ref. Range	Optimum Value
Fasting (F)	2 to 25 $\mu\text{IU/ml}$	2 to 5 $\mu\text{IU/ml}$
Post Prandial (PP) 2 hours after meals	12 to 82 $\mu\text{IU/ml}$	5 to 12 $\mu\text{IU/ml}$

* Insulin levels return to normal levels in 2 hours in non diabetic people

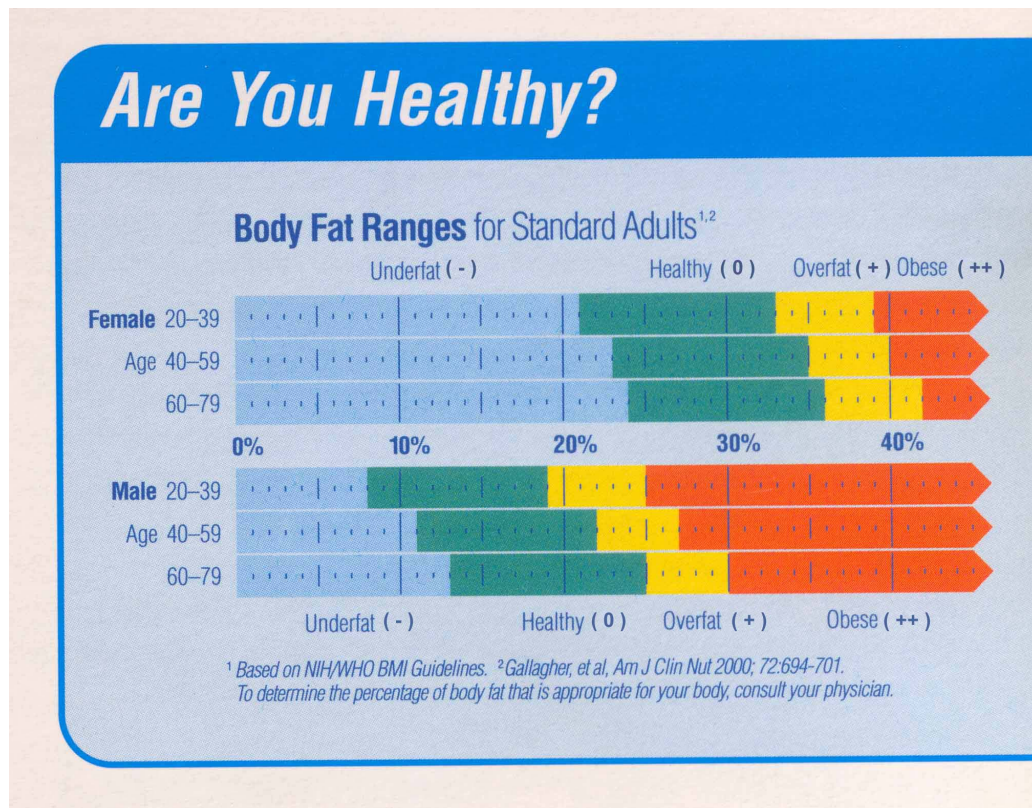
Optimum Insulin Levels to Prevent Accumulation of Body Fat

On achieving such lower levels of serum insulin the body will stop accumulating fresh body fat and conditions will be created to metabolize the existing fat and at the same time lowering appetite. You have to help the body by not ingesting high glycemic index foods – rice, potatoes, bagles, pastas, etc. for instance.

From the above it is clear that, having multiple small meals frequently throughout the day will maintain high insulin levels (throughout the day) and will not only prevent the reduction of body fat but will enhance the accumulation of body fat and lead to obesity.

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, and heart disease, 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 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 glycemic index foods, exercising regularly and optimizing your vitamin D levels.



Organic Magnesium – What The Experts Say !

Recommended Daily Allowance (RDA) = 350mg;

Optimum Daily Allowance (ODA) = 600mg;

Therapeutic Dose: 1000 to 1440 mg per day in 4 equal divided doses for few months at a time.

Therapeutic Doses of Magnesium may be administered for a few months while regularly monitoring Serum or preferably Intracellular Magnesium levels.

James F. Balch, M.D., is a graduate of Indiana University School of Medicine. He is a member of the American Medical Association and a fellow of the American College of Surgeons.

Prescription for Nutritional Healing:

Research has shown that **Magnesium may help prevent Cardiovascular Disease.**

Magnesium deficiencies are at the root cause of many Cardiovascular problems.

Magnesium deficiency may be a major cause of fatal cardiac arrhythmia, hypertension, and sudden cardiac arrest.

Magnesium plays a central role in the secretion and action of insulin. Without adequate magnesium levels within the body's cells, control over blood sugar levels is impossible.

Magnesium supplementation is helpful in cases of glucose intolerance and insulin insensitivity. Magnesium helps regulate Blood Sugar by improving Pancreatic function.

Test for Magnesium Deficiency

To test for magnesium deficiency, a procedure called an intracellular (mononuclear cell) magnesium screen should be performed. This is a more sensitive test than the typical serum magnesium screen, and can detect a deficiency inside the cell (where it is really required) with much more accuracy.

The Reference Range for Serum Magnesium used by Allopathic Medicine to detect a state of disease is 1.8 to 3.0 mg/dL. **Optimum value of Serum Magnesium in healthy individuals desiring perfect health is typically 2.4 to 2.8 mg/dL.**

References:

- 1) G Paolisso, L Amato, R Eccellente, A Gambardella, MR Tagliamonte, G Varricchio, C Carella, D Giugliano, F Donofrio. Effect of metformin on food intake in obese subjects. *European Journal of Clinical Investigation* 28: 6(JUN 1998):441-446.
- 3) MB Davidson, AL Peters. An overview of metformin in the treatment of type 2 diabetes mellitus. *American Journal of Medicine* 102: 1 (JAN 1997):99-110.
- 4) T Sir, T Castillo, S Munoz, G Lopez, M Calvillan. Effects of metformin on insulin resistance in obese and hyperandrogenic women. *Revista Medica de Chile* 125: 12 (DEC 1997):1457-1463.
- 5) U Gudat, G Convent, L Heinemann. Metformin and exercise: No additive effect on blood lactate levels in healthy volunteers. *Diabetic Medicine* 14: 2 (FEB 1997):138-142.
- 6) F Abbasi, V Kamath, AA Rizvi, M Carantoni, YDI Chen, GM Reaven. Results of a placebo-controlled study of the metabolic effects of the addition of metformin to sulfonylurea-treated patients: Evidence for a central role of adipose tissue. *Diabetes Care* 20: 12 (DEC 1997):1863-1869.
- 7) J Holte, G Gennarelli, L Wide, H Lithell, C Berne. High prevalence of polycystic ovaries and associated clinical, endocrine, and metabolic features in women with previous gestational diabetes mellitus. *Journal of Clinical Endocrinology and Metabolism* 83: 4(APR 1998):1143-1150.
- 8) E Velazquez, A Acosta, SG Mendoza. Menstrual cyclicity after metformin therapy in polycystic ovary syndrome. *Obstetrics and Gynecology* 90: 3 (SEP 1997):392-395. Excellent editorial in *The Lancet*, January 31, 1998 351:305-6. lots of references.
- 9) LC Morinapapunen, RM Koivunen, A Ruukonen, HK Martikainen. Metformin therapy improves the menstrual pattern with minimal endocrine and metabolic effects in women with polycystic ovary syndrome. *Fertility and Sterility* 69: 4 (APR 1998):691-696.
- 10) Nestler JE et al. Effects of metformin on spontaneous and clomiphene-induced ovulation in polycystic ovary syndrome. *NEJM*, 1998(June 25);338:1876-1880.
- 11) N Mauras, et al. Ovarian hyperandrogenism is associated with insulin resistance to both peripheral carbohydrate and whole-body protein metabolism in postpubertal young females: A metabolic study. *Journal of Clinical Endocrinology and Metabolism* 83: 6(JUN 1998):1900-1905.
- 12) JE Nestler, DJ Jakubowicz, A Falcon, VC Brik, N Quintero, F Medina. Insulin stimulates testosterone biosynthesis by human thecal cells from women with polycystic ovary syndrome by activating its own receptor and using inositolglycan mediators as the signal transduction system. *Journal of Clinical Endocrinology and Metabolism* 83: 6(JUN 1998):2001-2005.

13) David Maggs of Yale University annual meeting of the American Diabetes association in Boston, November, 1997.

14) J Pugh. Metformin monotherapy for type II diabetes. Advances in Therapy 14: 6 (NOV-DEC 1997):338-347. sulfonureas: Unwanted effects such as hypoglycemia, weight gain, and increased fasting insulin levels have sometimes been associated with sulfonylureas. Metformin improves glucose intolerance without stimulating insulin release or causing hypoglycemia. Additional benefits associated with metformin include a favorable influence on body weight and plasma lipid profiles. Metformin is an important first-line alternative agent for patients with type II diabetes.

15)H YkiJarvinen, K Nikkila, S Makimattila. Metformin prevents weight gain by reducing dietary intake during insulin therapy in patients with type 2 diabetes mellitus. Drugs, 1999, Vol 58, Suppl. 1, pp 53-54.

KEYWORDS: insulin, insulin resistance, visceral fat, abdominal fat, obesity, weight loss, body fat reduction, chromium, blood sugar, diabetes, pcos, pcod.

Pramod Vora
Medical Scientist & Holistic Educator
Anti-Aging 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

Fax: +1 - 949 – 861 – 8165

E-mail: consult2008@space-age.com

Internet: www.space-age.com



<http://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)

Case Study of Natural Reversal of Hypothyroidism

Patient: Female, Age: 56 years, Height: 5ft., Weight: 138.4 lbs (62.9 Kg), Fat = 37% (+), Diet: Meat Eater (Ref: BJ)					
	* 09/13/2002	** 09/16/2003	*** 04/11/2004	# 08/06/2004	## 02/23/2005
Serum Creatinine	0.78 mg / dL	1.00 mg / dL	0.87 mg/dL	0.89 mg / dL	
Blood Urea Nitrogen (BUN)	15.02 mg /dL	18.22 mg /dL	17.34 mg /dL	12.58 mg /dL	
Total Bilirubin	0.56 mg/dL	0.25 mg/dL	0.40 mg/dL	0.29 mg/dL	0.30 mg/dL
Direct Bilirubin	0.23 mg/dL	0.14 mg/dL	0.14 mg/dL	0.12 mg/dL	0.17 mg/dL
Indirect Bilirubin	0.33 mg/dL	0.11 mg/dL	0.26 mg/dL	0.17 mg/dL	0.13 mg/dL
SGPT (ALT)	42.37 IU/L	23.29 IU/L	21.08 IU/L	39.83 IU/L	22.0 IU/L
SGOT (AST)	29.92 IU/L	22.10 IU/L	24.30 IU/L	19.88 IU/L	21.0 IU/L
GGTP (Gamma GT)	42.00 IU/L	27.30 IU/L	41.73 IU/L	52.30 IU/L	27.0 IU/L
TSH Ultrasensitive	1.62 μ IU/ml		2.97 μ IU/ml		2.01 μ IU/ml
TSH = 23.0 μ IU/ml in October 2001. Eltroxin / Synthroid / Thyroid Hormone T4 was not administered to the Patient.					
* Twelve months after first Detoxification					
** After 8 weeks of Whole Body Detoxification					
*** After 8 weeks of Whole Body Detoxification but with substance abuse resulting in higher GGPT (Gamma GT)					
# Without Detoxification for a whole year but with substance abuse resulting in elevated GGPT (Gamma GT)					
## After 8 weeks of Whole Body Detoxification done annually					
TSH = 2.27 μ IU/ml on December 02, 2008. (Three years after discontinuing treatment with our Health Center and six years after TSH value was naturally brought down from a high of 23.0 μ IU/ml).					

Table 10 – Case Study 5
Annual Detoxification & Rejuvenation over a period of 10 years

The overall impression left is that Gamma GT does deteriorate with substance abuse, but can still be corrected in short while by proper detoxification of the Liver coupled with abstinence. Barring this, there is a good overall control and maintenance of the Renal and Liver Profile over the entire six year period.

The Table further shows that the TSH once corrected in early 2002 was well maintained in a narrow range during the entire 4 year period, till 2006, when annual detoxifications were stopped; and continued to maintain for a further 3 year period on its own without any further supportive treatments.