ANTI-AGING MEDICINE: THE ESSENTIALS

1) CHECK THE DIET

BAD FOODS	BAD DRINKS	HEALTHY FOODS	HEALTHY DRINKS
• **Milk products** (including cheese & yoghurt) • **Grains** that are not sprouted (bread, pastas, noodles, muesli) • **Sugar, sweets** (chocolate, candies, cakes, dougnuts)	• **Daily alcohol:** wine, beer, strong drinks.. • **Caffeina-ted drinks:** coffee, expressos, dark tea, cola, .. • **Soft drinks** • **Daily fruit juices** (esp. canned)	• **Fruits (esp. citrus fruits)** • **Vegetables** (esp. cabbages, max. 4x /wk) • **Animal protein foods**: 200-300 grams of ((small) fish, poultry, eggs, meat – but not overcooked) • **Fresh foods** rather than packed, preserved foods	• **Water** (filtered) • **Vegetable soup** (without milk)

BAD DIETARY HABITS:	MALNUTRITION:	GOOD DIETARY HABITS:	EUNUTRITION:
• **Mixing fruits with other foods** • **Non-organic foods** • **High t° cooked food** (grilling, barbecue, panfried… • **Foods cooked in oil or butter** • **Not enough variation:** always the same breakfast…	• **Too high calorie diet** • **Too low fat diet**: never (clarified) butter, strict vegetarian diet, no cold-pressed oils, … • **Low protein diet** (vegetarian or low-calorie diet)	• **Organic** • **Low t° cooked food** (raw, in the oven on maximally 80°C cooked, cooked in special low t° cooked pans ..) • **In water boiled or steamed foods** • **Varying the diet:** always another breakfast, not more than 2x per wk the same type of foods	• **Moderately low calorie diet or periodic moderate fasting** • **A normal fat diet**: (clarified) butter, fatty fish, cold-pressed vegetable oils, liver.. • **A sufficient protein diet** (> 160 g/day of protein-rich food)

2) CHECK PHYSICAL ACTIVITIES

ADVERSE	BENEFICIAL
Doing not enough: • **Sedentary all day** **Feeling unwell**: • **Being unfit** • **Feeling tired** **Doing too much**: • **3 hours or more per day of heavy, stressful physical activities** (work, sports…) • **Very intensive sports** (strainful gymnastics… • **Elite competition**	**Amount of physical activity**: • 40 to 60 minutes a day of moderate physical exercise • **Walking 2 miles** (3.2 km) per day or more - without exaggerating) or doing an equivalent (moderate endurance) activity **Type of sports**: • **Walking** as main sport • **Light jogging** as main sport • **Moderate bicycling** as main sport

3) CHECK PSYCHOLOGICAL ATTITUDES

ADVERSE	POSITIVE
• **Very anxious** • **Depressed** • **Stressed** • **Aggressive** • **Emotional retention**	• **Resourcefulness** (capacity to resolve problems) • **Having a purpose, meaning in life** • **Spirit of life, Passion** • **Active, doing professional or social work** • **Belief in higher values** (religious, spiritual, moral) • **Sleeping enough** (8h30 to 8h30 sleep)
POSITIVE	
• **Acceptance of growing old** • **Positive thoughts & words** • **Tendency to convert negative emotions into positive attitudes** • **Close family relationships** • **Love, loving attitudes** • **Humor**	

4) CHECK THE ENVIRONMENT -

POLLUTION (indoor = worst)		HEALTHY ENVIRONMENT	
Bed-, living & office rooms	**Bad habits**	**Bed-, living & office rooms**	**Good habits**
Floor coverings: • **Synthetic carpets, novilon** • **Soft wood** (treated with pesticides, varnish) **Wall- & Ceiling coverings** • **Synthetic material** • **Plactic paints** • **Soft wood** (treated with pesticides) • **High electromagnetic field electricity** **Location: sleeping, living or working** • **Near a road with heavy traffic** • **Near a crossroad with traffic lights** • **In a noisy environment** • **Near agriculture fields** (pesticides)	• **Smoking** tobacco, • **Taking** drugs, • **Air-conditioning** • Living, working, siesping w/ **closed windows** • Having **dental amalgams** • Often on the road (car), in **traffic jams** • **GSM mobile phones** • **Working with toxic products** (paints…..)	**Floor coverings:** • **Stone, tiles, linoleum** (real, not plastic), • **Hard wood** (untreated), coco **Wall- & Ceiling coverings** • **Water painted** • **Stone** • **Radiation heating** (not convection) • **Low electricity electromagnetic field** **Location: living or working** • **Near a forest** • **Near a lake or pound** • **Near meadows** (untreated)	• **Living, working, sleeping with open windows** • **Having dental ceramic** (or composite) **fillings** • **Filtered air**

5) CORRECTIVE NUTRITIONAL TREATMENTS

CHECK the NUTRIENT LEVELS in the SERUM		
Minerals • **Sodium** • **Potassium** • **Phosphorus** • **Red blood cell magnesium** **Trace elements** • **Ferritine** • **Copper** **Vitamins**: • **Vit. B12** • **RBC folic acid** (B9) • **Vit. 25 OH D** • **Fatty acid profile** (saturated fats, omega3-6-9 fatty acids, trans fatty acids)	**Oxidative stress**: • **Thiobarbituric acids** • **Myeloperoxidase** • **Anti-oxidized cholesterol antibodies** **Anti-oxidant enzymes**: • **Glutathion peroxidase** • **Superoxide dismutase** **Anti-oxidant nutrients**: • **Zinc** • **Selenium** • **Vit. A** • **Vit. C** • **Vit. E** • **Coenzyme Q10** • **Total carnitine**	• **Glucose** (fasting) • **Insulin** (fasting) • **Hba-1** • **Cholesterol** • **HDL-, LDL-cholesterol** • **Triglycerides** • **Homocysteine** • **CRP** • **Total protein ; Albumine** • **Ureum** • **creatinine** • **Uric acid** • **Alcalin phosphatase** • **Gamma-GT** • **Antithrombine III**

TREAT NUTRITIONAL DEFICIENCIES				
DEFICIENCY	**DEFICIT**	**OPTIMAL**	**REFERENCES**	**TREATMENT**
• **Sodium**				Avoid ↓ salt diet;
• **Potassium**				Correct aldosterone def. (fludrocortisone)
				↑ fruit & vegetable intake
• **Magnesium erythrocytic**				400-500 mg/day elemental Mg; ↑ green leaf vegetables,
• **Ferritine**				100 mg/day elemental iron (= +/- 500 mg/d of an iron complex)
• **Zinc**				50 mg/day zinc citrate or sulfate (2-4 months)
• **Copper**				1-2 mg/day copper sulfate (2-4 months)
• **Selenium**				100-200 µg/day yeast free preparation
• **Vit. B9 (Folic acid) RBC**				5-10 mg/day (2 months)
• **Vit. B 12**				3000 UI per os (4 mo.) Or 6 x 1000-5000 IU per IM
• **Vit. C**				1- 3 g/day
• **Vit. A**				100.000 IU/day (2-8 months)
• **Vit. D3 (25-0H-D)**				400-4000 IU/day 25-OH-vit.D (4-6 months)
• **Vit. E**				200-800 IU/day (4-12 months)
• **Co Q10**				50-100 mg/day (3-4 months or daily cst)
• **Saturated fatty ac.**	Under the mean value	**Above the mean value**		Eat (clarified) butter, coconut oil
• **Polyunsaturated**				Take specific cold-pressed oils
ω-3 • **α-linoleic acid**				1000 mg/d, take rapeseed oil
ω-3 • **EPA**				1- 3 g/d (2-8 mo.), eat fish
ω-3 • **DHA**				
ω-6 • **γ-linoleic acid (GLA)**				500-100 mg/day of bourrache or evening primrose oil
ω-9 • **Oleic acid**				Take cold-pressed olive oil (1/3rd of a teaspoon)
EXCESS	**TOXIC**	**OPTIMAL**	**REFERENCES**	**TREATMENT**
ω -6 • **Arachidonic acid**	Above the mean	**Under the mean,** but not too low		Take anti-oxidant supplements
• **Trans fatty acids**	Any level	**Not detectable**		Avoid margarine, bread, cookies, cakes, cooking with oils

6) CORRECTIVE HORMONE TREATMENTS

CHECK the HORMONE LEVELS in the SERUM		CHECK the HORMONE LEVELS in the 24-h URINE	
Growth hormone: • **IGF-1** (Somatomedin C) • **IGFBP-3** **Thyroid**: • **TSH** • **Free T3** • **Free T4** • **Thyroid antibodies:** • Anti-thyroglobulin • Anti-thyroid peroxidase • Thyroid stim. immunoglobulines • **Thyroglobulin** **Glucocorticoid**: • **Transcortine** (CBG) • **Cortisol (morning)** • **Free cortisol** (calculated) **Other:** • **Pregnenolone (sulfate)**	• **Sex hormones**: • **LH - FSH** • **Prolactin** • **Estradiol** • **Estrone** • **Progesterone** • **SHBG** • **Testosterone total** • **(DHT or) Androstanediol glucuronide** • **DHEA-S** **Cancer (women)**: • **CEA or CA 15.3** **Cancer (men):** • **PSA** • **Free PSA**	• **Volume** **Muscle mass:** • **Creatinine** **Minerals:** • **Sodium** • **Potassium** • **Magnesium** • **Calcium** • **Phosphorus** **Thyroid:** • **Free T3** • **Free T4** • **Reverso T3** • **T2 (metabolite), Iodine** **Growth hormone**: • **Free GH** **Pineal:** • **6-sulfatoxy-melatonin**	**Gluco-, Mineral & Androgen corticoids**: • **Free Cortisol** • **17-OH-steroids** (gaz chromatography) • **Aldosterone** (gaz chromatography) • **17-keto-steroids** (gaz chromatography) • **Free DHEA (gaz chr.)** **Sex hormones:** • **2-OH-estrone** • **16-alpha-OH-estrone** • **Free Testosterone** (gaz chromatography) • **Androsterone** (gaz chromatography)

TREAT the HORMONE DEFICIENCIES					
DEFICIENCY		**TREATMENT**	**DOSIS**	**ATTENTION**	
• **Pineal hormone**	Melatonin	**Melatonin**	Sublingual 0.1-1 mg/day	Sublingual works better & quicker at lower doses	
			Oral: 1-3 mg/day	Irregular efficacy	
• **Pituitary**	Growth Hormone	**GH secretagogues**		Often not very efficient	
		GH injections (pharmaceutical)	0.1-0.5 mg/day	Recommended	
		GH injections (Internet)	0.3-1.5mg/day	After first days, loses its efficacy	
• **Thyroid hormones**	Hypo-thyroi-dism	**Desiccated thyroid**	30-180 mg/day	Start slowly & gradually increase	
		T3 + T4	½ to 2 tablets/d		
		T4	50 to 250 µg/day		
• **Female Hormones**	Perimeno-pause	**Transdermal estradiol**	0.75-3 g/day of 0.6 mg/g gel (morning)	5th-25th	day of cycle, cancer screening
		Micronized progesterone	100-200 mg/d (Prior bedtime)	15th-25th	
		Transdermal estradiol gel	0.75-3 g/d of 0.6 mg/g (morning)	1st-25th day of the month, check breasts & pap smear	
	Postmeno-pause	**Micronized progesterone**	100-200 mg/d (Prior bedtime)		
• **Testo-sterone**	Women	**Transdermal testosterone**	3 mg/day (morning)	always associate with estrogens & progesterone	
		Mesterolone (Proviron®)	½ to 1 tablet/d (= 12.5-25 mg/d)		
	Men	**Transdermal testosterone**	50-300 mg /day (morning)	Check prostate: digital exam, serum total & free PSA, ultrasound	
		Oral Testo undecanoate	40-120 mg/day (milder forms)		
		IM Testoterone enanthate	250 mg/2wks		
		IMTesto undecanoate	1000mg/2mo		
		IM Nandrolone	50 mg/2 wks		
• **Adrenal Cortex hormones**	Pregnen.	**Pregnenolone**	50-100 mg/day (morning)		
	Androgen	**DHEA**	Men: 20-50 mg/day Women: 5-30 mg/day (morning)	Women: associated with estrog./progest.	
	Glucocorti-coid deficiency	**Hydrocortisone**	Men: 25-40 mg/day (20-30 morning, 10 lunch) ; Women (15-30 mg/d (at 8 AM, 13 AM)	Always associated with DHEA &/or other anabolic hormone	
		Prednisolone	2.5-7.5 mg/d (inflammatory dis)		
		Methylprednisolone (Medrol®)	2-6 mg/day (for HT, obese)		
	Mineral corticoid	**Fludrocortisone**	100 µg/day (75-200 ; morning)	+ sufficient water & salt intake	