

EUROPEAN OBESITY DAY

Be Slim Again. Forever.

How to lose weight and never gain it back again? In my family, on my mother's side, all the eleven children including my mother tend to be overweight. My genetic profile shows I have failing genes, that make me at high risk of having excessive appetite, increased fat production, reduced fat breakdown and a fatty silhouette (in stress conditions I can start swelling up). Despite the fact that my genes push me towards overweight and obesity, I'm not obese, nor overweight. This leanness or slimness is also possible for you with less effort and more pleasure than you think.

| How To Control Your Appetite?

Above all, it is important to **sleep sufficiently**, seven to eight hours per night. A too short sleep is associated with weight gain, particularly in younger age groups. In contrast, a longer sleep duration is associated with decreased weight and body mass index. People who are predisposed to obesity are likely to become overweight if they sleep less than 7 hours instead of 9 hours or more. Researchers, such as the Belgian professor Eva Van Cauter attribute the current obesity epidemic in the USA and Western countries to the - on average - one to two hours lack of sleep. A great part of the population watches TV too late, depriving them from the necessary seven or eight hours of sleep. This has a major impact on their hunger: people who are sleep-deprived have much more appetite and therefore eat more, especially sweet food, which have significant negative consequences on weight gain.

The average nighttime sleep should be seven to eight hours per night. If you're unable to sleep 7-8 hours, because you wake up too early and cannot fall back asleep, you can take 50 to 100 mg of 5-HTP (5-hydroxytryptophan) and/or 150 to 1000 mg of tryptophan before bedtime. This

may help you sleep throughout the night. Indeed, four hours after intake, both 5-HTP and tryptophan convert into melatonin (the hormone that makes us fall asleep).

Having a good night reduces the appetite by reducing in the blood and the tissue the level of the appetite-increasing hormone *ghrelin* while increasing one of the appetite-reducing hormone *leptin*. This balance limits hunger.

Secondly, two micronutrients may have fundamental importance for you to reduce your appetite: **5-HTP and chromium**.

5-HTP blocks your hunger when you are under pressure, anxious, feel frustrated or nervous, while chromium, especially GTF (Glucose Tolerance Factor) chromium important for the control of the blood sugar level, can substantially reduce the appetite for sugar and sweet foods.

GTF chromium is the naturally-occurring form of chromium, also called dinicotinic-acid glutathione complex. GTF is different from simple chromium compounds because it is more easily absorbed by your body and safer than other forms.



How Do 5-HTP & Chromium Work?

5-HTP converts into serotonin, the neurotransmitter that calms down appetite, in particular for sweet food, by reducing frustration and making you feel happier. Many people get hungry when they are under pressure. Eating relaxes them, calming down their anxiety or nervousness by doubling or tripling their level of cortisol, the stress-reducing hormone that provides energy and reduces suffering, and by providing in the food some substances with opioid (morphine-like) action, also called 'exorphins', as has been shown in cereals.

The best way to administer 5-HTP is to swallow 25 mg tablets or capsules in the morning at wakeup and then every two or three hours 10 to 15 mg of 5-HTP in stressful periods. You should try to take 5-HTP before or at the moment of frustration so that it starts working half an hour later, neutralizing both stress feelings and appetite.

Be careful: if more than 25 mg of 5-HTP is taken at once during daytime, a strong desire to yawn and sleep may come up. Having regular intakes through the day with a total consumption of more than 75 mg may considerably reduce your oxytocin brain level. The resulting oxytocin deficiency may make you appear as a relaxed person but too cold and introvert.

Noteworthy is the capacity of 5-HTP to increase the levels of the energy hormone and sugar-craving-reducing hormone cortisol. At high dose of 100 mg, cortisol level increases by 50%. This rate almost doubles (90%) few hours after an intake of 200 mg and even increases by 125% following an intake of 300 mg. Therefore, 10 to 25% increases are obtained at lower doses, which might provide increases of energy and a lower appetite for sweets.

Chromium helps insulin to put the blood sugar inside target cells in which energy is required, by sensitizing the insulin receptor that is at the surface of target cells. Supplementing chromium with other nutrients may boost its action and these stimulating nutrients are often added to chromium into a preparation called GTF chromium. GTF is a nutrient that improves glucose tolerance or sensitivity to insulin. People who suffer from prediabetes, a condition that precedes diabetes, have a certain degree of glucose intolerance or insensitivity to insulin. They may benefit from GTF chromium supplementation. How much chromium is required to reduce appetite for sweets? At least two intakes of 400 µg per intake are necessary. In stressful conditions, I need 800 µg twice a day. The second intake is taken in the late afternoon before sugar cravings may come up at supper or later in the evening.

The appetite can also be decreased by **drinking more water**. Many people eat when their body is thirsty. They do not recognize thirst anymore and misinterpret thirst as hunger. Others tend to drink the wrong drinks when they are thirsty such as soft drinks or alcohol. There is on average 20 g of sugar per 33 cc of soft drink. We should drink a minimum of one and a half to two liters of still water every day.

Drinking drinks other than water can also increase additional intake of foods. Indeed, when milk was given with meals to

Swedish children, an additional energy intake of 17% was found compared to when they took water. The pattern was similar among boys and girls and independantly of the meal served. For the least preferred dish (fish with potatoes), milk helped to increase the energy intake by 26%.

There is on average 20 grammes of sugar per 33 centiliters of soft drink.

You can also decrease your appetite by **choosing a better kind of food**. Eat protein-rich or fat-rich foods as they can calm down appetite. As such, the Atkins diet is mainly composed by protein-rich and fat-rich foods.

In these diets the patients lose weight because their appetite declines. Try eating a whole stick of butter, you probably won't have any appetite for a day or two afterwards.

Another method that seems to have a lot of success to reduce appetite is to **chew more**. Chew five to ten times more and satiety comes up faster. Furthermore, slow eating reduces hunger and increases satiety.

Finally: as television viewing increases appetite and food consumption, it may be wise to limit TV use to two to three days a week maximum and no more than two hours each time.

Make Your Body Firmer

It is not healthy to lose weight at the expense of muscles and skin. To lose weight while strengthening your muscles, skin and hair, you should optimize the levels of anabolic hormones, the hormones that make the body strong with firm muscles and solid bones.

Anabolic hormones have bad reputation due to an excessive use as synthetic derivatives of testosterone called 'anabolic steroids' by body builders. Anabolic hormones, however, are key hormones for health and to reduce the excessive fat on the breasts, belly and thighs, and provide you with a younger outlook of the body by making the muscles and the skin tighter and thicker.

Which are these precious hormones that make us firmer?

Growth hormone: Growth hormone and IGF-1 determine your final body height. The more growth hormone and IGF-1 you had during your childhood, the taller you are. Growth hormone thickens and tightens the skin, providing it with elasticity, while substantially limiting any excess fat and body weight. It is with testosterone the

main hormone that reduces abdominal fat and cellulite.

IGF-1 (insulin-like growth factor I): IGF-1, whose production by the liver depends on growth hormone, thickens the skin and muscles more than growth hormone. Therapies that associate IGF-1 to growth hormone reduce further the fat mass compared to what growth hormone can do alone. When IGF-1 is supplemented in the presence of low levels of growth hormone and high levels of insulin, it may on the contrary increase fat mass. So I tend to prescribe IGF-1 to my IGF-1 deficient patients in association with growth hormone therapy.

Testosterone: The male hormone shapes with its super active masculinizing metabolite *dihydrotestosterone* the male body into an attractive masculine appearance. Testosterone is typically the muscle hormone, overused by bodybuilders, to acquire a more male outlook. Interestingly, in one study it has been reported that if the administration of testosterone clearly reduces abdominal fat, dihydrotestosterone treatment does the opposite. In women, testosterone levels are 20 times lower than in men, but nevertheless, this level is sufficient to shape their body in a firm, rather athletic, young female body. Without high enough levels of testosterone, a woman loses her beauty.

DHEA (dehydroepiandrosterone): DHEA therapy at the physiological (normal) dose of 50 mg by mouth has been shown to reduce fat mass by approximately 1 kg and increase lean mass (which is mainly made of muscles) by one kilo too, about four times less potently than testosterone could do it, or seven times less potently than growth hormone would do it. Thus, DHEA makes the body firmer but moderately.

WHAT IS FAT-RICH FOOD?

Fat-rich foods are foods such as butter, egg yolk, boiled bacon (don't cook them in oil or butter: the fat becomes toxic!), fatty fish, liver but also less recommendable foods such as fatty cheese and fat-rich milk, which you should avoid as they may considerably irritate your gut.

Foods rich in starch such as bread, pasta, muesli and porridge, or foods and drinks rich in sugar such as chocolate, ice creams and soft drinks open up hunger. This attraction to sweet food may be due to food compounds that have morphine-like action. Avoid these carbohydrate-rich foods!

The female hormones, oestradiol and progesterone: in contradiction with what is generally thought, female hormones, when given the right way, reduce fat mass. In fact, fat mass reductions are mainly obtained with the use of transdermal (application through the skin) preparation of bioidentical oestradiol and generally not by the use of oral (by mouth) oestrogens, even if the oral estrogens is bioidentical oestradiol. Why would oral oestrogens not be very efficient for fat mass reduction and why might they even increase fat mass? Because of their accumulation in the liver after oral ingestion and intestinal absorption. When the liver is overloaded with oestrogens, it overproduces hormones transporting proteins that are secreted in the blood and strongly bind there to the hormones, keeping hormones much longer in the blood, depriving thereby the target cells from essential hormones, including anabolic hormones. The lack of anabolic hormones such as growth hormone and testosterone in the target cells of women taking the birth control pill, for example, explains why these women see their body change and become looser, less muscled and fatter. In a study, researchers have shown that women with overweight had lower progesterone levels. This suggests a possible weight-reducing effect of progesterone. Woman with progesterone deficiency suffer generally from breast and belly tenderness. Progesterone reduces the fluid retention in breasts and belly in the premenstrual period by increasing the excretion of water into the urines.

Thyroid hormones make the body lose weight easier. People who have had a hard time losing weight are often thyroid deficient, in particular those that seem unable to lose weight with diet after a first loss of several pounds, despite a persistent diet.

Can hormones also make the body looser? Yes, insulin is a hormone that may make the body looser by increasing fat mass. However, insulin is a bivalent hormone. In slim people, insulin therapy usually thickens and tightens the skin and muscle, in particular to my experience in the triceps and buttocks. It does this by sharply increasing the absorption of amino acids into skin and muscle cells. In overweight people, however, insulin may further make people gain weight by making them fatter. For those people, everything should

be done to keep the insulin low. One of the most important ways is to avoid consuming foods that trigger the secretion of insulin such as pure sugar, sweets, chocolate and foods made from cereals that are not sprouted such as bread, pasta, muesli, and porridge. A high consumption of these foods may increase the levels of insulin and trigger 'insulin resistance', a condition characterized by high levels of insulin that are not any more efficient for brain, skin, muscle and heart cells.

Some nutritional supplements may increase muscle mass, in particular amino acids such as the three branched-chain amino acids valine, isoleucine, leucine. Leucine is the most efficient to improve muscle mass. The branched-chain amino acids compromise together 70% of the amino acid content in muscles. Other amino acids that also appear to be efficient to improve muscle mass are glutamine and carnitine. Glutamine also makes arms firmer, while carnitine to my experience makes the pelvis and buttocks stronger. At least two to five grams of each of these amino acids should be taken daily to see a difference. Individual amino acids are easier to absorb under the form of supplements as they are already separated, while the amino acids contained in proteins of meat, have to be separated by a good working digestive tract into amino acids. For this reason, some people will improve their muscles by amino acid supplements. Nevertheless, eating fresh meat offers a full panel of amino acids and young people with good digestive system develop beautiful muscles with a diet rich in meat, poultry and fish. Over the 200 grams a day may help to improve the body well. Pure vegan food devoid of any animal-derived foods often offer poorly digestible vegetable proteins that do not suffice to develop a firm body. Humans have a meat-eating type of intestinal tract not that of a plant-eater that is much longer and differently equipped than ours. Following professor Khavinson from Leningrad, an expert in gerontology – he is the actual president of the large European society of geriatrics and gerontology – there are no vegan (no animal food whatsoever) or vegetarians (fish, eggs, milk products may be allowed) that become old enough to be a centenarian due to the many nutritional deficiencies including in amino acids of these philosophically super but practically maladapted diets.

So the second strategy is to make the body firmer, which increases muscle mass and skin tightness. How then to reduce fat mass?

Reduce Fat Mass & Weight

What type of diet should you follow? There are three types of diets that may help you to lose weight:

- The high-protein low-carb diet
- The HCG fasting diet
- Total fasting with nutritional supplementation

The high-protein low-carb diet: This diet is based on 2 to 3 days of consumption of exclusively protein-rich food without vegetables and fruits or any sweet food.

Proponents to this type of diet claim people lose about half a kilo a day by eating so, at least during the only dietary protein days. Theoretically, you can eat as much protein-rich foods as you want. Whatever the amount of protein-rich food you eat, you lose weight. I advise to add potassium supplements and drink a lot of water on days where only protein-rich food is consumed.

Indication: People who have a hard time eating less.

Expected weight loss: 2 to 6 kg per month.

The HCG fasting diet: HCG means *human chorionic gonadotrophin*, the hormone that is increased in pregnancy and serves as a pregnancy marker. According to Dr. Simeons, who first started the method in the 1960s, HCG supplementation at doses of 150 units per day by injection under the skin reduces the appetite and makes people lose weight exactly where they have excessive fat.

The cure consists of a minimum of 26 days, starting with three days of HCG injections without any dietary restriction and then 23 days of simultaneous daily HCG injections with a 500-calorie diet. The cure ends with three days of low-calorie diet without any HCG injections anymore.

People who do well on this diet may continue for about two weeks longer, for a maximum of 42 days in total. Dieting for a longer time may trigger the rise of antibodies against HCG and thus allergies against it. Therefore, if a new cure has to be undertaken, you should wait six weeks after the end of the previous diet before starting; if a third diet is undertaken, it should take place eight weeks after the second one; a fourth one 10 weeks after the previous diet, etc. Adding two additional weeks to the interval period will avoid the creation of this allergy and enable you to obtain optimal results in weight loss.

WHAT IS THE PALEOLITHIC-DIET?

In the first two diets the food that should be consumed is from the Paleolithic-type, the diet of our ancestors who lived in the Paleolithic period. It is a diet full of low sugar-containing fruits such as berries, easy to digest vegetables and meat, fish, poultry or eggs cooked at low temperature. No cooked fats, no milk products, no sugar-containing foods, no grains that are not sprouted, nor alcohol, nor caffeine.

When people switch from a conventional diet to a paleolithic diet they usually lose a little more than 2 kg in three weeks, partially because it makes them eat more low-calorie foods such as vegetables. Privilege the consumption of fresh and raw products as they help to lose weight than non-fresh and cooked foods (anyway they are healthier!).



Some of the placebo-controlled studies have not reported any positive impacts on weight loss compared to placebo. Studies which do show a different report a near doubling of the weight loss compared to placebo (-11.5 kg versus 6.8 kg weight loss). This difference in results might be due to the use of a new vial every week. Moreover, when used for more than 7 days, the product seems to expire.

Indication: Patients with an overweight of 7 kilos or more; also for very massively obese patients.

Expected weight loss: 5kg (women) to 10 kg (men) per cure (26 days).

Total fasting with nutritional supplementation: I have recently fasted (complete stop of food ingestion) for 16 days and a half without ever suffering from hunger, and remaining dynamic all the time.

Restriction: The patient should be healthy. This type of diet is only to do under strict physician's supervision or experienced health professional and with the intake of a large amount of supplements, including amino acid supplementation.

Indication: Rare patients who have digestive troubles; patients who may benefit from providing their gut a rest or people who want to make a spiritual experience while losing weight.

Expected weight loss: 2 to 3 kg for 5 days; 3 to 5 kg for 10 days; 4 to 7 kilos for 15 days depending if there is daily physical exercise or not. An intake of a mixture of 3 to 5 grams of purified amino acids with additional amounts of branched chain amino acids. This type of diet may with additional supply of amino acids and high dosed minerals (magnesium, potassium, calcium but also some sodium) increase muscle mass and body water, while reducing only fat mass. This beneficial change in body composition reflects a rejuvenation of the body composition equal to 5 to 10 years back in time.

How to Keep the Benefits of Your Diet?

Several methods can be applied but must aim at definitive improvement, that means that you stay in the future at the desired lower weight with a firmer body.

Be in control of your appetite most of the time:

If you are a person who is genetically programmed to be hungry and crave for the wrong foods, you have no choice: you need to add nutrients such as 5-HTP and/or chromium to calm down your appetite and sleep enough.

Eat Paleolithic-type of foods at least five days per week.

Learn to avoid foods that make you fatter and eat what makes you slimmer: Basically, people should eat Paleolithic-type foods and take special care to avoid the consumption of:

Sugar and sweet foods, and soft drinks: As said before, it increases appetite and fat production. Weight gain has been shown to be greater with soft drinks containing artificial sweeteners such as aspartame, cyclamates, etc. than with drinks containing regular sugar, because these sweeteners offer generally a stronger sweet flavor than sugar that creates addiction. Alternative: stevia, add a spoon of fresh fruit juice to sweeten

Cereal-type foods: Although they have no or poor fat content, bread, pastas and junk foods increase fat production by elevating the level of the fat-increasing hormone, insulin. Try to avoid them at least 5 days per week. As alternative: sprouted grains, sprouted bread, sprouted muesli, sprouted rice that you can find in some health food stores or through the Internet.

Cooked fats: Cooking foods in oil or butter, or just bringing fatty foods at high temperatures (above the temperature of boiling water – 100 degrees Celsius) changes the structure of the fats, making polyunsaturated fatty acids become more rigid and be called *trans fatty acids*. A high intake of trans fatty acids has been reported in a primate study to increase by four any weight gain, especially fat gain. It is not any fat that makes you fat, but (over) cooked fat. Alternative: use other cooking methods that do not bring food and in particular fats at high temperature such as steaming, boiling in water, oven at 85° Celsius maximum (185 degrees Fahrenheit), carpaccio or tartar steak, etc.

Alcohol: Drinking alcohol increases insulin and estrogens, hormones that can increase weight, while reducing many fat-reducing hormones such as growth hormone, testosterone, melatonin, etc. Avoid it at least 5 days a week. As an alternative, there are alcohol-free aperitifs, but be careful: they

are often rich in sugar...

Caffeine: Drinking caffeinated beverages such as coffee, tea and cola increases insulin and cortisol, two hormones that can make you fatter, while reducing two hormones that can make you thinner, growth hormone and thyroid. It is nearly impossible to make heavy coffee drinkers lose weight and if ever they do, they regain it quickly because of their caffeine intake.

Preservatives in food: These preservatives may reduce your metabolism, in other words your calorie-consumption. Even when less food and less calories are consumed, weight gain may appear if the food contains preservatives. Prefer the consumption of fresh foods such as organic vegetables.

Fast each time you do slippers: Each time you do a dietary excess – eat too much food, drink several glasses of alcohol, get into an irresistible and major chocolate craving, compensate by skipping the

next one or two meals!

Sport: You can also compensate by doing more physical exercise – adding a longer sport session to your program, but be aware that the amount of calories consumed with even heavy exercise is often much less than the amount of calories eaten in one meal during which you eat too much. A hard training session may consume 500 extra calories, while a copious meal may be 1200 calories or more.

A body that does not exercise, does not move, rusts and increases in weight. 95% of sedentary people who followed a weight loss program regain the weight they lost in the previous year while about 35% only of physically exercising people regain the weight they lost in the previous year.

Do not eat one hour before or one hour after a training session as this speeds up the metabolism/calorie consumption and helps to lose more weight.

Dr. Thierry Hertoghe

Born in Antwerp (Belgium) on April 14th, 1957, Dr. Thierry Hertoghe practices his medicine in his clinic in Brussels. With his sister, Dr. Thérèse Hertoghe, they proudly represent the fourth successive generation of physicians working with hormonal treatments – and this since 1892 (after Eugène Hertoghe – former vice president of the “Royal Academy of Medicine” in Belgium and Luc & Jacques Hertoghe – endocrinologists).

Dr. Thierry Hertoghe devotes his life to the promotion of a better, patient-oriented and evidence-based medicine. Author of numerous books, he also travels a lot to take part in numerous conferences and congresses throughout the world. He co-organizes many of these specialized gatherings and holds important positions in several international and national medical organizations (which usually tend to fight against aging). He is the president of the International Hormone Society (over 2,500 physicians) and of the World Society of Anti-Aging Medicine (over 7,000 physicians).



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