**Chronodiet ™**

### Weight Management Through Chrononutrition

Lose weight faster and age more slowly…how does that sound? When it comes to weight loss, it really pays off to eat consciously. If you choose wisely, theoretically, you won’t even have to count calories!

### Time Matters

During the day there are several “Happy Eating Hours” - specifically, between 11am and 4pm – when the consequences of poor nutrition are less severe. Conversely, the critical hours for eating right are in the morning and evening.

When it comes to digesting and assimilating calories and nutrients from foods such as turkey, steaks, cereals, burgers, hot dogs, pizzas and pasta, chronobiology plays an important role. A calorie isn't just a calorie; the time at which you eat each meal is crucial.

### Carbohydrates Are King

A healthy and a well-balanced diet includes foods from three major groups, the most important of which is carbohydrates like those found in all baked goods, noodles, potatoes, corn, rice, sugar, jam, fruits, soft drinks and alcohol. Carbohydrate intake should account for 40% of your daily nutrition. The second important group is proteins, which should account for about 30% of your daily intake. Foods rich in protein are fish, meat, eggs, milk and cheese. The remaining 30% of your nutrition should come from fats. These can be found in butter, oils, margarine, cream, and also in meat and fish.

Billions of cells in the human body burn the carbohydrates, proteins and fats derived from the food consumed to provide our body with the energy it requires. A gram of carbohydrates provides us with four calories of energy, a gram of protein with two to five calories, and a gram of fat with nine calories. Alcohol provides about seven calories per gram. The calories that we don’t burn are stored in the form of fat, thus contributing to weight gain.

Every process in your body requires energy - even the process of digesting a meal. The energy required can vary considerably, and ranges from one hundred to three hundred calories. For example, whole wheat products are digested more slowly and require more energy to digest than white bread.

The body obtains nourishment in two ways: either from the blood or from the body’s fat deposits. Ultimately, the decision is yours – and it hinges on what you eat and when you eat it.

### Reducing Fat Deposits

The body prefers carbohydrates. Baked goods, french fries, sweet snacks and sweetened or alcoholic beverages are converted into glucose. These glucose molecules enter the bloodstream and pass by your seventy billion cells. Each one of your cells has to open a channel in order to consume the glucose molecules it needs.

Unfortunately, when you consume carbohydrates, the sugar molecules they contain enter the bloodstream and are used for energy; as a result, your fat stores remain untouched for hours. In simple terms, this means that if you want to reduce your body’s fat deposits you would first have to stop consuming baked goods, french fries, sweet beverages, sugar and alcohol; by doing so you force your body to burn fat cells and use them as an energy source. The body needs constant energy, so by avoiding carbohydrates for a period of time, you can increase the fat burning process. However, just one wrong meal can lead to an increase in glucose, stopping the fat-burning process immediately. Abstaining from carbohydrates during a stressful day can prove difficult, especially if there are tempting foods around. To make things easier, chronobiologists have developed a trick that really works: disciplining oneself in order to lose weight while sleeping.

### Lose Weight While You Sleep

Now imagine: You enjoy a delicious dinner without carbohydrates—according to recommendations by a nutritionist or dietitian—in the evening, and don’t indulge on any snacks in front of the TV before going to bed, and the following morning, you weigh a pound less! Without even lifting a finger, your organs have consumed a very large amount of energy while you slept.

At night, the process of regeneration occurs at full speed. If you avoid carbohydrates in the late afternoon there is no glucose available in your bloodstream, so your body is forced to break up fat cells and transform these fat deposits into energy to perform its nightly functions. As a result, when you wake up in the morning, millions of your fat cells have shrunk overnight.

Evolution has made it difficult for us to get rid of fat deposits because they are crucial as emergency energy resources during hard times. That’s why the hormone insulin ensures that hungry cells will use the last glucose molecule in your blood before utilizing your fat deposits for energy. As a result, those fat deposits around the belly, thighs and upper arms are stubborn. Even slim individuals have energy reserves for two to three months stored in these cells. In overweight individuals, fat reserves can last for an entire year or longer.

The pancreas produces the hormone insulin. Every time your body breaks down carbohydrates, glucose is introduced into the bloodstream. This results in an increased blood sugar level, prompting the release of insulin. Insulin encourages your cells to absorb the excess glucose in the blood. In just two to five minutes after blood sugar levels rise, the resulting insulin surge reaches its maximum level. In this way, insulin prevents energy extraction from other sources, such as from fat cells.

### Do Not Fight Evolution

The human body expects the consumption of three meals a day, as people have been doing for centuries; in the morning, afternoon and night. At these times the body releases insulin at peak levels so that the glucose from the food you eat can be used up by your cells.

We all know the dietary recommendation to eat five small meals a day: Basically, eating smaller portions but more often. This creates a problem, as the additional two snacks involved are not part of the evolutionary plan. As a result, there is no insulin spike. The same happens at nighttime when we are not intended to eat. Without this dispenser-insulin, a portion of glucose may remain unused in the bloodstream, which eventually ends up in the fat reservoirs. This means that the same amount of calories, spread over five meals, actually increases the risk of fat deposits.

As an alternative, consuming carbohydrates in the morning, a combination of protein and carbohydrates at lunch, and protein in the evening will lead to a massive insulin overproduction as long as no snacks are taken in between meals. The insulin will then disappear from the bloodstream by the end of the day, and the process of fat burning will begin. During this process, fat is converted into free fatty acids, which are then broken down to generate energy.

For many of us this scenario remains a dream, because sugar molecules and insulin in the blood constantly push things in a different direction. However, clever and strong-willed individuals would consciously avoid carbohydrates several hours before sleep.

Since our body does need a certain amount of carbohydrates, chronobiologists provide a clear recommendation: start the day with plenty of carbs in order to achieve the forty percent share of carbohydrates required from your food within the first two meals. In other words, lots of hash browns, pancakes and maple syrup, buns, bread and jelly in the morning. Cereals such as oatmeal and corn flakes for breakfast are even permitted, although they contain sugar.

And here is the good news: you can eat whatever you desire at lunch. What matters the most are the first and the last meal of the day.

### Your Personal Chronodiet™ In a Nutshell:

**Breakfast:** Bread, butter, jam, pancakes, fruit syrup, cereals, hash browns. Eat as much of these foods as you desire. After breakfast, fast for five hours and refrain from consuming any sweetened drinks.

**Lunch:** Eat whatever you desire. Again, fast for five hours and refrain from consuming any sweetened drinks.

**Dinner:** Meat, fish, eggs, cheese, vegetables – again, eat as much as you desire, but refrain from consuming potatoes, pasta and bread.