#### **Appendix**

**BMI:** Body Mass Index. BMI is a measure of your weight relative to your height.. Categories: malnourished <18.5 kg/m2, normal weight 18.5-24.9 kg/m2, weight 25-29.9 kg/m2, obese ≥30kg/m2.

**Prevalence.** Proportion of a disease affecting a given population at a given time.

**Metabolic type:** Based on the definition of The Metabolic Typing Diet, our metabolic type can be of three types: protein type, carbohydrate type, and mixed type. This type determines the recommendation of the ratio of the macronutrien intake.

**Hormonal body type**: Four basic body types (thyroid type, glandular type, adrenal type, pituitary gland type) are known today, which have different hormonal backgrounds, so they can also be referred to as hormonal body types, although it does not show the actual hormone levels. These types have a characteristic body fat location and own nutritional patterns.

**OECD:** Organisation for Economic Co-operation and Development.

**Glycemic index:** The glycemic index shows the measure that a given food cause increases blood sugar. compared to glucose. The scale ranges from 0 to 100 (glucose=100).

Macro nutrient: Nutrients that supply energy. This includes protein, carbohydrate and fat.

### Characteristics of metabolic and hormonal body types:

Our metabolic type can be of these three types: protein type, carbohydrate type and mixed type. This types determine our nutritional pattern.

For the protein type the recommendation of the macronutrients should be 40E% of protein, 30E% of fat and 30E% of carbohydrate according to The Metabolic Typing Diet.

Carbohydrate types are more responsive to carbohydrate-rich diets, and they work well if they are also restricted by fat and moderate thier protein intake. For them, the macro-nutrient recommendation represents 25E% of the protein, 15E% of the fat and 65E% of the carbohydrate.

The mixed type carries the marks of the previous two types in a mixed way, they are the combination of the two. For them, the recommendation on the proportion of macronutrients is 30E% of protein, 50E% of carbohydrate and 20E% of fat. This type has the biggest overlap.

Today, there are four basic body types that have different hormonal backgrounds, so they can also be referred to as hormonal body types, however it does not mean the actual hormone levels. Our hormonal body type determines that where the fat is stored in our body. We can belong to more hormonal body types at the same time, but it is important to know our primary type. It should also be noted that there is a correlation between the lack of certain enzymes.

### Type I - para (thyroid and parathyroid)

Para type is characterized by the fact that they are mainly store fat to waist, hip, abdomen and thighs, but they have thin arms. The width of shoulders and hips is the same. They prefer carbohydrates, for example fruits and cereals, so amylase is the most important enzyme for them. Fat deposition in this group can be reduced by reducing carbohydrates, and by adding some more protein. They are also characterized by low blood sugar and blood pressure, as well as they have a tendency to allergy. The members of these group tend to be become a vegetarian, because they prefer to choose between carbohydrate rich foods. This can predispose them to hypoglycemia, and may cause different sugar metabolism disorders. The members of the group are advised to pay more attention to protein intake.

## Type II - oestro (gonads=gonads)

In women, the fat stores are mainly in the hips, thights and arms, and in men it locates to the thights. The hips of these type members are wider than the shoulders. These type loves and wants fatty foods. They like every kitchen in which the fats are higher in proportion, they like creamy, spicy, strong foods, and eats chocolate and ice cream as a dessert. They prefer to drink alcohol to their meals, not really like water. They often have gall bladder complaints, tendency to cysts, and skin lesions. They fight against the relative lack of lipase, because the

amount of our intake, so they have to decrease the intake of the fat consumption, and increase the carbohydrate intake.

#### **Body type - supra (adrenal adrenal glandula)**

The characteristics of the adrenal type, include the fact that they tend to gain weight on the upper body, abdomen, and their legs are thinner and more shapely. This type has the highest protein requirement, prefers to choose between meat, meat products and high protein foods, so they like sausages, eggs and cheese. They salt the foods without tasting so he often has hypertension. For the adrenal type, the plant-based diet is recommended as well as the suppression of the protein intake itself, because the most important enzyme for them is protease.

# **Body type - neuro (endocrine system, pituitary-hypothalamus)**

A characteristic of the neuro type or pituitary gland is the preference for dairy consumption, even though they realize that it is not particularly beneficial to them. They don't feel full of their meals without dairy products. They are constantly suffering from intestinal problems, from diarrhea to constipation and hormonal problems. They whole body builds on a soft fat layer and is usually characterized by a "baby look", mostly looking younger. The nutritional recommendation of this type is the most complex, as there may be a lack of several enzymes, like lactase and lipase. The type characteristics include consuming as many dairy products. For this type of protein intake, it may be important to have the right amount and quality of food, even they are vegetarian or on a plant based.