



Nutri-score: critical issues

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The stakes

reduction in the incidence of overweight and related diseases

Defending champion:

Ambient and DNA

- Optimal foraging theory
- Sedentariety
- Food affordability
- Huge caloric availability at low cost

Challenger:

Psycocultural determinants

- Self control
- Nutritional information
- Education and literacy



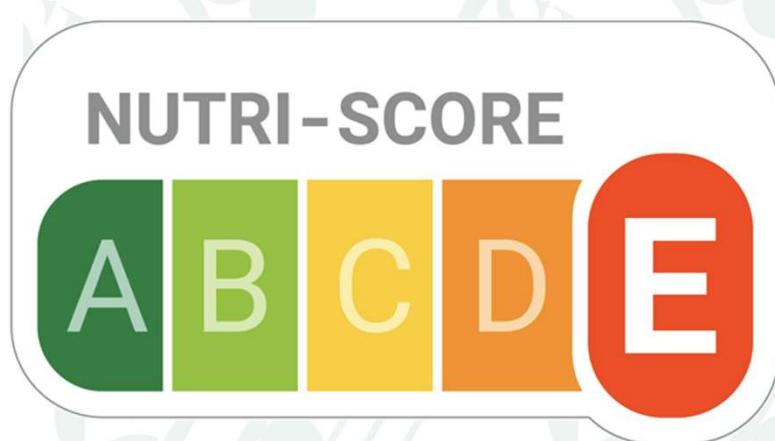
Different FOP labelling systems

Table 1. Front-of-pack (FoP) nutrition labels in use in Europe and other regions.²⁰

Categories of FoP schemes				Examples of FoP schemes	Countries of use
Nutrient-specific labels	Reductive (non-interpretative)	Numerical	Reference Intakes		Across Europe
					Italy
Evaluative (interpretative)	Colour-coded	Multiple Traffic Lights (MTL)			UK
			Textual		Chile
Summary labels	Evaluative (interpretative)	Endorsement logos	Keyhole		Sweden, Denmark, Lithuania
		Graded indicators	Health Star Ratings		Australia, New Zealand
			Nutri-Score		France, Belgium, The Netherlands, Luxembourg, Germany, Spain



Nutri-score is



- Subjective
- Negotiable
- Misleading
- Not informative
- Useless if not even harmful



Negotiable

After August 2019

1) Calculation of the nutritional score of food products

The nutritional score is calculated the same way for all food products, save for cheeses, animal fats, and drinks. For these categories of food products, the adaptations mentioned taken into account.

1-a General case

The nutritional score for food products relies on the calculation of a single, overall score into account, for every food product:

- a "negative" component N
- a "positive" component P

- The N component of the score takes into account nutritional elements which consumers limited: energy density (the energy in kJ per 100 g of the food), saturated fatty acid amount of simple sugars (in g per 100 g of the food). Its value amounts to the sum of the points it accumulates (from 1 to 10) based on the food product's nutritional composition (see. Table 1). The grade for the N component can range from 0 to 40.

Table 1: Points attributed to each of the elements of the negative N component

Points	Energy density (kJ/100g)	Saturated fats (g/100g)	Simple sugars (g/100g)	Sodium ¹ (mg/100g)
0	≤ 335	≤ 1	≤ 4.5	≤ 90
1	> 335	> 1	> 4.5	> 90
2	> 670	> 2	> 9	> 180
3	> 1005	> 3	> 13.5	> 270
4	> 1340	> 4	> 18	> 360
5	> 1675	> 5	> 22.5	> 450
6	> 2010	> 6	> 27	> 540
7	> 2345	> 7	> 31	> 630
8	> 2680	> 8	> 36	> 720
9	> 3015	> 9	> 40	> 810
10	> 3350	> 10	> 45	> 900

¹ the sodium content corresponds to the salt content mentioned in the mandatory statement divided by 2.5.

Points	Ratio Total saturated fatty acids/lipids
0	<10
1	<16
2	<22
3	<28
4	<34
5	<40
6	<46
7	<52
8	<58
9	<64
10	≥64

- The P component is calculated based on the amount of fruits, vegetables, legumes, nuts as well as rapeseed, walnut and olive oils in the food product, calculated in terms of the vitamins, the fibers, and the proteins they contain (expressed in g per 100 g of the food product). For each of these elements, points from 1 to 5 are awarded based on the content of the food product (see Table 2). The positive P component of the nutritional score is the grade corresponding to the sum of the points defined for these three elements; the grade is therefore between 0 and 15.

Table 2: Points attributed to each of the nutrients of the positive P component

Points	Fruits, vegetables, legumes, nuts and rapeseed, walnut and olive oils (%)	Fibres (g/100g)	Proteins (g/100g)
		AOAC method	
0	≤ 40	≤ 0.9	≤ 1.6
1	> 40	> 0.9	> 1.6
2	> 60	> 1.9	> 3.2
3	-	> 2.8	> 4.8
4	-	> 3.7	> 6.4
5	80	> 4.7	> 8.0

¹ fruits, vegetables, legumes and nuts contain many vitamins (especially vitamins E, C, B1, B2, B3, B6, and B9 as well as provitamin A)





The subjectivity of the algorithm



Algoritmo originale

1 punto ogni 4,5 g di zucchero
1 punto ogni 1 g di saturi



Algoritmo modificato

1 punto ogni 5 g di zucchero
1 punto ogni 1 g di saturi



Algoritmo modificato

1 punto ogni 5 g di zucchero
1 punto ogni 1,5 g di saturi





Negotiability of the algorithm

Salud

Actualidad

Medicina

Nutrición

Ejercicios

Familia

Dos pediatras en casa



Sanidad no aplicará el semáforo NutriScore al aceite de oliva después de que puntuara peor que la Coca-Cola

POR 20minutos NOTICIA 19.11.2018 - 13:53H



- Sanidad implantará el NutriScore, un semáforo de colores para frenar la obesidad de la población.
- Blog sobre los errores del NutriScore: El aceite igual que el ketchup y peor que la coca cola Zero.
- Boticaria García: ¿Qué es el NutriScore y cómo funciona el nuevo semáforo de los alimentos?
- Suspenden el semáforo nutricional alternativo propuesto por cinco grandes multinacionales.



BLOGS DE 20MINUTOS



VEINTE SEGUNDOS

Vuelve el brasero y se aplaza el cambio climático



LA ENERGÍA COMO DERECHO

El gas natural: un obstáculo para una verdadera descarbonización del transporte marítimo



EL BLOG DEL BECARIO

Detenida por realizar dos amenazas de bomba falsas para poder pasar más tiempo con su novio



The deceptiveness of Nutri-score.

If the purpose is to distinguish between foods belonging to the same group



Per 100 g

Kcal	70
Saturated fat	1
Sugar	4
Salt	0,55
Fibre	0
Protein	0



Per 100 g

Kcal	900
Saturated fat	14
Sugar	0
Salt	0
Fibrr	0
Protein	0



The deceptiveness of 100 grams

Maison Crousti Moelleux Original

NUTRI-SCORE: A
TOMATES Cultivées en France

Valeurs nutritionnelles

Pour 100g	One pizza
Énergie	938 Kj 223 Kcal
Matières Grasses dont Acides Gras Saturés	7.0 g 3.6 g
Glucides dont sucres	29 g 2.5 g
Fibres alimentaires	2.0 g
Protéines	10 g
Sel	0.89 g

Ciascuna porzione (400g) contiene:

ENERGIA 3752 kJ 892 kcal	GRASSI 28 g	GRASSI SATURI 14 g	ZUCCHERI 10 g	SALE 3.6 g
45 %	40 %	72 %	11 %	59 %

delle Assunzioni di Riferimento di un adulto medio (8.400kJ / 2.000kcal)
per 100g: 938 kJ / 223 kcal



Peanuts, even if salted, are scored as green





The same with «frites»

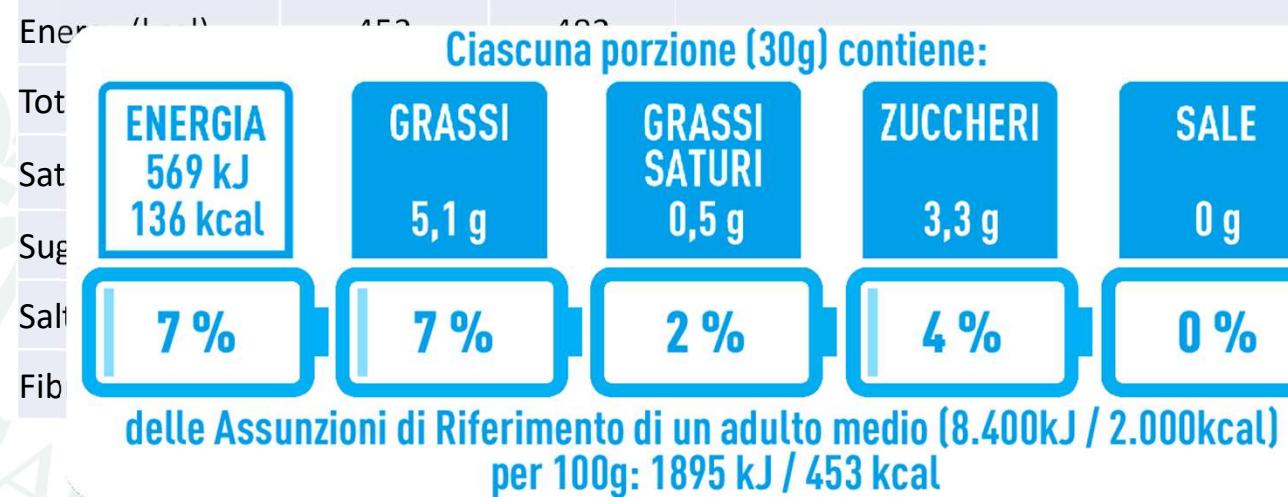
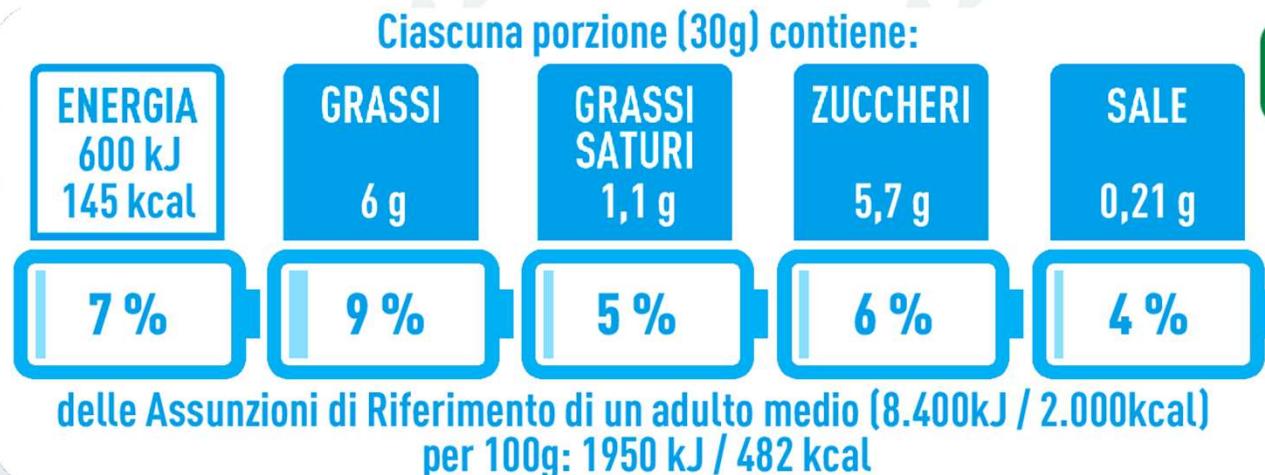
Enjoy your «green» meal!

A			
			439 kcal
			434 kcal
			143 kcal
			2 kcal



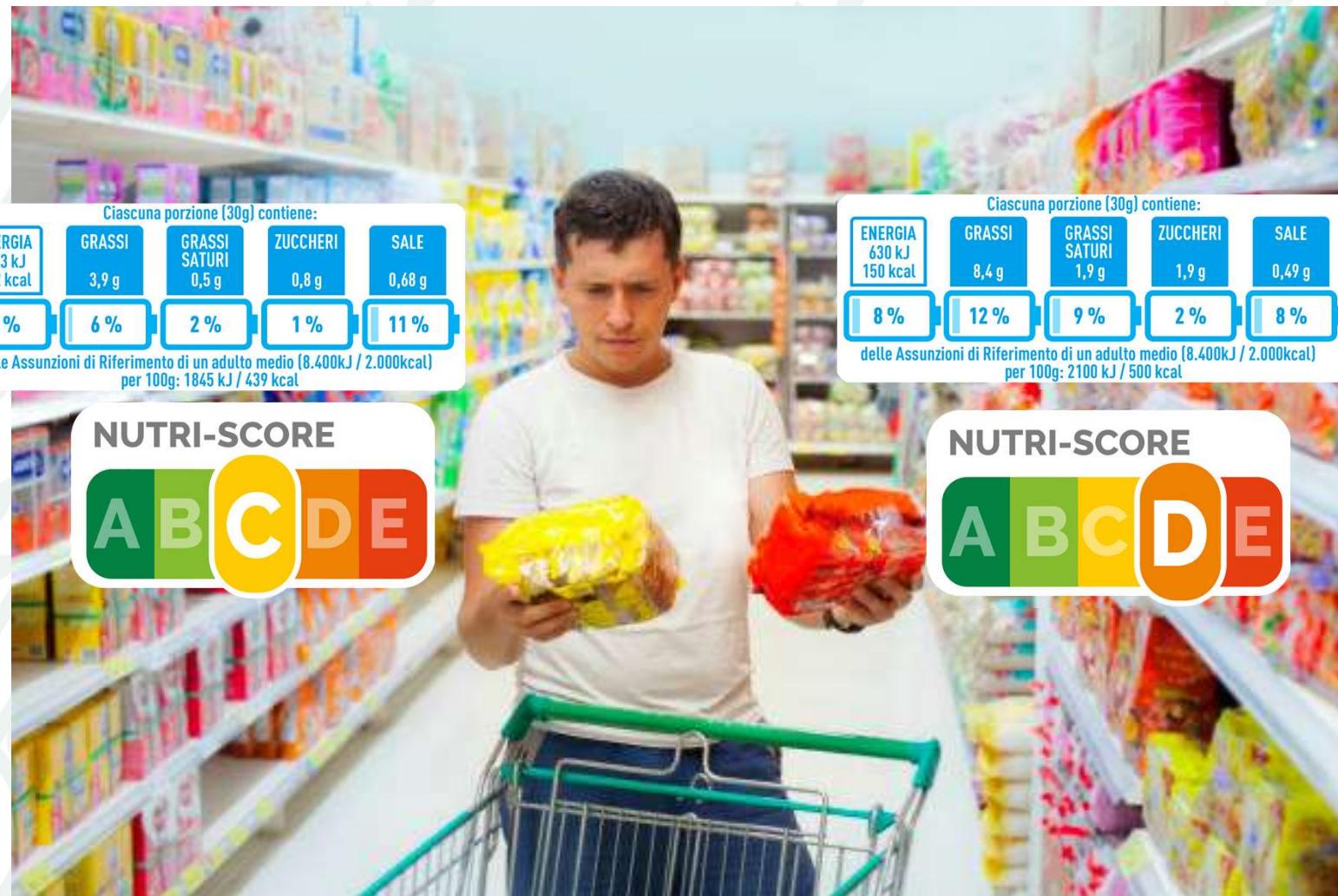
The usefulness of Nutri-score

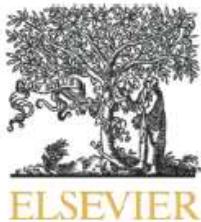
Is there an appreciable difference between an A-scored biscuit and a D-scored one?





The doctor advised me to reduce my salt intake





The dangerousness of Nutri-score

What if "healthy" products were "unhealthy"?

Contents lists available at ScienceDirect

IJRM

International Journal of Research in Marketing

journal homepage: www.elsevier.com/locate/ijresmar



Regular or low-fat? An investigation of the long-run impact of the first low-fat purchase on subsequent purchase volumes and calories

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Keywords:

Low-fat

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Household panel data

Long-run impact

Structural break analysis

- Our results confirm the ***short-term*** effect that low-fat choices ***increase food consumption***
- Our results also show a significant positive ***long-term effect***. This suggests that the overconsumption effect is persistent.
- Motivating consumers to buy these products (i.e., through promotions or fashionable campaigns) can result in negative ***long-term consequences***, in which consumers, ***persistently continue buying more products and consuming more calories***

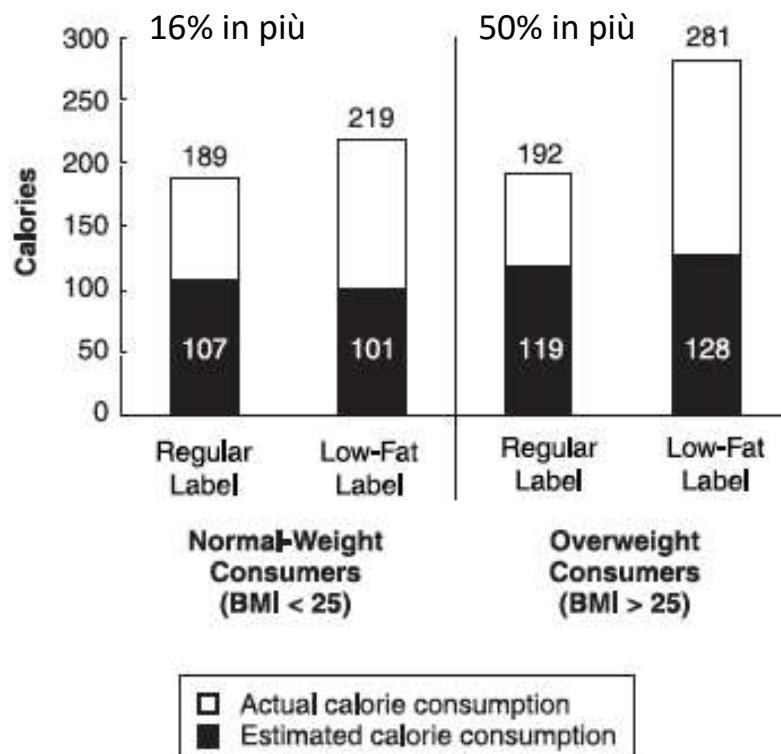
the enduring effect of healthier variants of unhealthy food.

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Consumer perception



STUDY 1: LOW-FAT LABELS INCREASE SNACK-FOOD CONSUMPTION



ON*

Journal of Marketing Research
Vol. XLIII (November 2006), 605–617

creasing obesity and increasing threats of legislation food marketing practices, regulatory agencies have how “low-fat” nutrition claims may influence food authors develop and test a framework that contends ion labels increase food intake by (1) increasing he appropriate serving size and (2) decreasing . Three studies show that low-fat labels lead all particularly those who are overweight—to overeat snack e, salient objective serving-size information (e.g., ngs”) reduces overeating among guilt-prone, normal-but not among overweight consumers. With consumer ate profitability in mind, the authors suggest win-win beling insights for public policy officials and food markete.

on Labels Lead to



The effect of "claims" on consumer choices

RESEARCH ARTICLE

Open Access



Systematic review of the impact of nutrition claims related to fat, sugar and energy content on food choices and energy intake

Laura H. Oostenbach¹, Esther Slits¹, Ella Robinson² and Gary Sacks^{2*} 

- The results of this review indicate that nutrition claims related to fat, sugar and energy content can increase purchases and consumption when food products are perceived as healthier.
- Although the quality of the evidence is low, current data suggests that policy makers should pay attention to claims on fat, sugar and energy for their potential negative effects on the adequacy of food choices and, consequently, on the weight of the population.
- There are indications that it could lead to unintentional excessive consumption of energy.
- Using the precautionary principle, policy makers should consider options to limit the potential negative influences of nutrition claims.

tastiness of food products – making food products with nutrition claims seem healthier and less tasty. Nutrition claims can make the appropriate portion size appear to be larger and lead to an underestimation of the energy



Are we really sure that...?

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 Routledge
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Does Green Mean Healthy? Nutrition Label Color and Perceptions of Healthfulness

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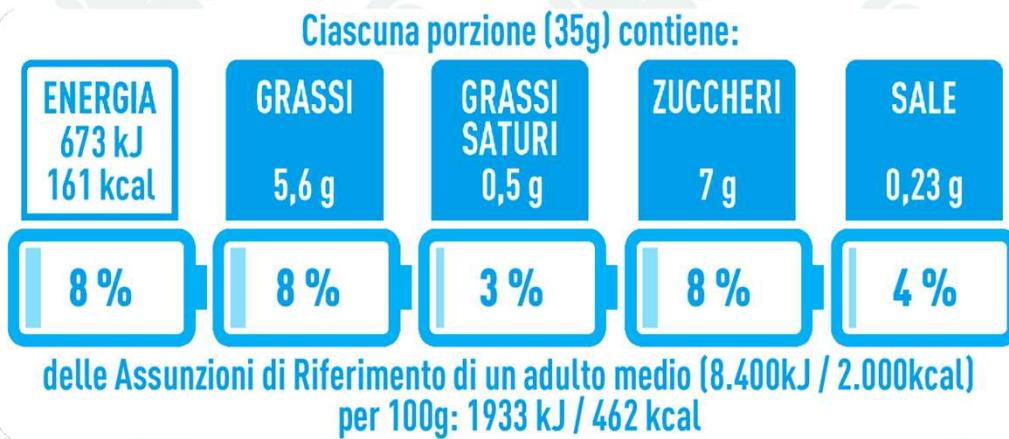


- We are to some extent programmed to choose caloric and delicious foods
- Especially when hungry, the meaning of green ("go") can influence the perception of the healthiness of a food otherwise considered unhealthy.
- The usual association between the green color and the concept of "natural", or "organic", further contributes to perceptions of greater healthiness.
- Awareness of a chocolate bar is influenced by the color that distracts from reading the nutritional values (regardless of personal variables (BMI, age, sex, diet)

especially among consumers who place high importance on healthy eating. Discussion focuses on implications for health-related judgment and nutrition labeling.



Nutriform is



- Based on serving size
- Objective
- Not negotiable
- Not misleading
- Not directive
- Informative



Conclusions

- It is necessary and urgent to act on the "food environment" to make it more suitable for healthier food choices
- FOP labeling can help improve the environment (i.e. supermarket) in which food is selected (purchased or consumed) and is an example of a population-based approach aimed at making the environment more conducive to better choices by providing **information** on the nutritional content of a food.
- Nutritional information is a key component of aware food choices
- The strategic objective for public health is to increase awareness and knowledge on the nutritional content of food products, but above all it is necessary for the consumer to be aware both of the size of a serving and of how that serving affects their daily diet.
- It is misleading for consumers to believe in the existence of good or bad food, while it must be educated that each type of food has its own serving and frequency of consumption.
- An informative and non-interpretative/directive label seems better to increase awareness of food choices without "side effect" which can lead to a decrease in self control
- Any action capable of training self-control is welcome, while we must avoid those actions capable of decreasing self-control