

# Nutri-Score

How to bring Nutri-Score in line with dietary recommendations for cheeses, oils and fats without changing the algorithm

# Current outcomes in Nutri-Score for cheeses and oils/fats are not in line with food based dietary recommendations

## OILS

Olive oil is a preferred oil in food based dietary recommendations. All oils practically score D.



Olive and palm oil

	Nutritional value Olive oil	NutriScore	Nutritional Value Palm oil	NutriScore
Energy (kJ/100g)	3700	10	3696	10
SFA (g/100g)	14.3	1	48	7
Simple sugars (g/100g)	0	0	0	0
Sodium (mg/100g)	0	0	0	0
<b>Total Negative</b>		<b>11</b>		<b>17</b>
Fruit/Vegetable/Nutrients (%)	0	0	0	0
Fibre (g/100g)	0	0	0	0
Protein (g/100g)	0	0	0	0
<b>Total Positive</b>		<b>n.a.</b>		<b>n.a.</b>
<b>Total score (N-P)</b>		<b>11 (D)</b>		<b>17 (D)</b>

## CHEESE

Lower fat cheeses are the preferred cheeses in food based dietary recommendations. All semi-hard cheeses (including gouda 10+, 20+ 30+) score D. No cheese with calcium content above 325 mg/100g with an A or B score.

Cheese

	Nutritional value Cheese 48+	NutriScore	Nutritional Value Cheese 30+	NutriScore
Energy (kJ/100g)	1529	4	1203	3
Total fat	30.5		18.5	
SFA (g/100g)	19.9	10	12.1	10
Simple sugars (g/100g)	0	0	0	0
Sodium (mg/100g)	700	7	689	7
<b>Total Negative</b>		<b>21</b>		<b>20</b>
Fruit/Vegetable/Nutrients (%)	0	0	0	0
Fibre (g/100g)	0	0	0	0
Protein (g/100g)	22.9	5	30.4	5
<b>Total Positive</b>		<b>5</b>		<b>5</b>
<b>Total score (N-P)</b>		<b>-16 (D)</b>		<b>-15 (D)</b>

Nutri-score is not sensitive for products containing saturated fat above 10 g per 100g or sodium above 900 mg per 100g.

The Nutri-Score uses the same Algorithm as HSR, based on FSA-NDS, but HSR outcomes are more in line with food based dietary guidelines

- Table of Nutri-Score is part of HSR table, only for first 10 rows, resulting in the loss of sensitivity for saturated fat and sodium

## HSR

Table 2: HSR baseline points for Category 3 and 3D Foods

Baseline points	Energy (kJ) per 100 g or 100 mL	Saturated fat (g) per 100 g or 100 mL	Total sugars (g) per 100 g or 100 mL	Sodium (mg) per 100 g or 100 mL
0	≤ 335	≤ 1.0	≤ 5.0	≤ 90
1	>335	>1.0	>5.0	>90
2	>670	>2.0	>9.0	>180
3	>1005	>3.0	>13.5	>270
4	>1340	>4.0	>18.0	>360
5	>1675	>5.0	>22.5	>450
6	>2010	>6.0	>27.0	>540
7	>2345	>7.0	>31.0	>630
8	>2680	>8.0	>36.0	>720
9	>3015	>9.0	>40.0	>810
10	>3350	>10.0	>45.0	>900
11	>3685	>11.0		>990
12		>12.0		>1080
13		>13.0		>1170
14		>14.0		>1260
15		>15.0		>1350
16		>16.0		>1440
17		>17.0		>1530
18		>18.0		>1620
19		>19.0		>1710
20		>20.0		>1800
21		>21.0		>1890
22		>22.0		>1980
23		>23.0		>2070
24		>24.0		>2160
25		>25.0		>2250
26		>26.0		>2340
27		>27.0		>2430
28		>28.0		>2520
29		>29.0		>2610
30		>30.0		>2700

## Nutri-Score

Santé publique France - "Nutri-Score" Logo usage regulation

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 <sup>1</sup> (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

<sup>1</sup>: the sodium content corresponds to the salt content mentioned in the mandatory statement divided by 2.5.

# How to bring Nutri-Score in line with food based dietary recommendations, without changing the Algorithm:

Use ALL the rows of HSR table for categories Cheeses, Oils/fats (not cream)

Table 2: HSR baseline points for Category 3 and 3D Foods

Baseline points	Energy (kJ) per 100 g or 100 mL	Saturated fat (g) per 100 g or 100 mL	Total sugars (g) per 100 g or 100 mL	Sodium (mg) per 100 g or 100 mL
0	≤ 335	≤ 1.0	≤ 5.0	≤ 90
1	>335	>1.0	>5.0	>90
2	>670	>2.0	>9.0	>180
3	>1005	>3.0	>13.5	>270
4	>1340	>4.0	>18.0	>360
5	>1675	>5.0	>22.5	>450
6	>2010	>6.0	>27.0	>540
7	>2345	>7.0	>31.0	>630
8	>2680	>8.0	>36.0	>720
9	>3015	>9.0	>40.0	>810
10	>3350	>10.0	>45.0	>900
11	>3685	>11.0		>990
12		>12.0		>1080
13		>13.0		>1170
14		>14.0		>1260
15		>15.0		>1350
16		>16.0		>1440
17		>17.0		>1530
18		>18.0		>1620
19		>19.0		>1710
20		>20.0		>1800
21		>21.0		>1890
22		>22.0		>1980
23		>23.0		>2070
24		>24.0		>2160
25		>25.0		>2250
26		>26.0		>2340
27		>27.0		>2430
28		>28.0		>2520
29		>29.0		>2610
30		>30.0		>2700

No longer make adjustments in Nutri-Score for Cheeses and Oils/fats:

- Cheeses: P points can always be distracted from N points
  - Oils/fats: saturated fat is judged on % of total fat
- But use the normal algorithm

~~Cheese nutritional score = Total N points - Total P points~~

Points	Ratio of 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

Use the HSR scores of cat 3D for Cheeses, Oils/fats (not cream) to allocate a Nutri-score

Table 7: HSR scores by category, with final Health Star Rating

HSR rating	Cat. 1	Cat. 1D	Cat. 2	Cat. 2D	Cat. 3	Cat. 3D
5	Water	≤-2	Eligible fruits and vegetables ≤-11	≤-2	≤13	≤24
4.5	Unsweetened Flavoured water	-1	-10 -- -7	-1 - 0	14 - 16	25 - 26
4	≤0	0	-6 - -2	1 - 2	17 - 20	27 - 28
3.5	1	1	-1 - 2	3	21 - 23	29 - 30
3	2 - 3	2	3 - 6	4 - 5	24 - 27	31
2.5	4 - 5	3	7 - 11	6 - 7	28 - 30	32 - 33
2	6 - 7	4	12 - 15	8	31 - 34	34 - 35
1.5	8 - 9	5	16 - 20	9 - 10	35 - 37	36 - 37
1	10 - 11	6	21 - 24	11 - 12	38 - 41	38 - 39
0.5	≥12	≥7	≥25	≥13	≥42	≥40

### Attribution des couleurs

Aliments solides (points)	Boissons (points)
Min à -1	Eau
0 à 2	≤ 1
3 à 10	2 à 5
11 à 18	6 à 9
≥ 19	≥ 10

Oils, fats and cheeses  
 ≤ 24  
 25 - 30  
 31 - 33  
 34 - 39  
 ≥ 40



# Outcomes: are in line with food based dietary recommendations

- Cheeses: lower fat and salt options

- Mozzarella
- Gouda 10+, 20+, 30+, lower in salt
- Camembert 30+

- Emmenthaler
- Gouda 45+
- Brie 50+

- Emmenthaler
- Edammer 40+
- Gouda 48+, lower in salt
- Parmesan
- Gruyere

- Cheddar
- Gouda 48+,old
- Kernhemmer 60+

- Gorgonzola
- Roquefort



# Outcomes: are in line with food based dietary recommendations

- Oils/fats: lower saturated fat options
- For cream the truncated table and score according to solid foods is used: resulting in a D score for full fat dairy cream

- Sunflower oil
- Corn oil
- Rapeseed oil
- Low fat margarine <17g safa

- Peanut oil
- Soya oil
- Olive oil
- Margarine, <24g safa



- Butter, unsalted
- Margarine, >24 g safa, unsalted

- Butter salted
- Margarine, > 24 g safa, salted
- Palm oil
- Coconut oil



Appendices with the calculations

# Cheeses

Food item	En (kJ)	SFA (g)	Sugar (g)	Protein (g)	Fibre (g)	Na (mg)	Ca (mg)	En (kJ)	SFA (g)	Sugar (g)	Na (mg)	tot_neg	Fibre (g)	Protein (g)	tot_pos	Score_H	NutriScore_HSR
Cheese 10+	787	4,2	0,2	32,2	0,0	865	1050	2	4	0	9	15	0	12	12	15	A
Cheese 20+	1031	7,8	0,0	34,5	0,0	718	1059	3	7	0	7	17	0	12	12	17	A
Cheese Mozzarella made from cow's	1089	11,7	4,9	20,0	0,0	200	403	3	11	0	2	16	0	9	9	16	A
Cheese Camembert 30+	929	9,1	0,0	24,0	0,0	900	600	2	9	0	9	20	0	10	10	20	A
Cheese 30+ average	1203	12,1	0,0	30,4	0,0	689	1046	3	12	0	7	22	0	12	12	22	A
Cheese Camembert 45+	1271	14,9	0,0	25,0	0,0	790	600	3	14	0	8	25	0	11	11	25	B
Cheese Emmenthaler	1608	20,1	0,0	29,0	0,0	450	1020	4	20	0	4	28	0	12	12	28	B
Cheese 45+	1483	17,8	0,0	25,4	0,0	720	830	4	17	0	7	28	0	11	11	28	B
Cheese Brie 50+	1311	16,2	0,0	23,0	0,0	828	400	3	16	0	9	28	0	10	10	28	B
Cheese Edam 40+	1345	14,6	0,0	25,5	0,0	1032	896	4	14	0	11	29	0	11	11	29	B
Cheese 48+ less salt average	1578	20,4	0,0	24,1	0,0	609	749	4	20	0	6	30	0	11	11	30	C
Cheese Gouda 48+ average	1529	19,9	0,0	22,9	0,0	700	816	4	19	0	7	30	0	10	10	30	C
Cheese Parmesan	1684	17,6	0,0	40,0	0,0	1000	1000	5	17	0	11	33	0	13	13	33	C
Cheese Gruyere	1799	22,5	1,4	29,0	0,0	500	900	5	22	0	5	32	0	12	12	32	C
Cheese Gouda 48+ age 4-7 mths	1565	20,1	0,0	22,5	0,0	771	826	5	20	0	8	33	0	10	10	33	C
Cheese Old Amsterdam 48+	1586	20,5	0,0	24,2	0,0	879	740	5	20	0	9	34	0	11	11	34	D
Cheese goat hard	1644	21,7	0,1	22,4	0,0	757	806	5	21	0	8	34	0	10	10	34	D
Cheese Cheddar	1721	22,4	0,1	25,5	0,0	670	720	5	22	0	7	34	0	11	11	34	D
Cheese Gouda 48+ age 10-12 mths	1719	22,0	0,1	24,6	0,0	875	871	5	22	0	9	36	0	11	11	36	D
Cheese Kernhem 60+	1831	26,6	0,0	18,6	0,0	600	600	5	26	0	6	37	0	9	9	37	D
Cheese Gorgonzola	1486	20,3	0,1	19,4	0,0	1450	612	4	20	0	16	40	0	9	9	40	E
Cheese Roquefort	1478	20,2	0,0	19,0	0,0	1600	608	4	20	0	17	41	0	9	9	41	E



# Oils/fats

Food item	En (kJ)	SFA (g)	Sugar (g)	Protein (g)	Fibre (g)	Na (mg)	Ca (mg)	En (kJ)_	SFA (g)_	Sugar (g)	Na (mg)_	tot_neg_	Fibre (g)	Protein (g)	tot_pos_	Score_H	NutriScore_HSR
Sunflower oil	3687	10,6	0	0	0	0	0	11	10	0	0	21	0	0	0	21	A
Corn oil	3700	13,8	0	0	0	0	0	11	13	0	0	24	0	0	0	24	A
Rapeseed oil	3696	6,9	0	0	0	0	0	11	6	0	0	17	0	0	0	17	A
Low fat margarine <17g safa	1463	10,6	0	0	0	191	0	4	10	0	2	16	0	0	0	16	A
Peanut oil	3700	17,3	0	0	0	0	0	11	17	0	0	28	0	0	0	28	B
Soya oil	3676	15,1	0	0	0	0	0	10	15	0	0	25	0	0	0	25	B
Olive oil	3700	14,9	0	0	0	0	0	11	14	0	0	25	0	0	0	25	B
Margarine, <24g safa unsalted	2965	18,9	0	0	0	0	0	8	18	0	0	26	0	0	0	26	B
Butter, unsalted	3033	53,6	0	0	0	5	0	9	30	0	0	39	0	0	0	39	D
Margarine, >24 g safa, unsalted	2965	32,3	0	0	0	7	0	8	30	0	0	38	0	0	0	38	D
Butter salted	3033	53,6	0	0	0	400	0	9	30	0	4	43	0	0	0	43	E
Margarine, > 24 g safa, salted	2965	33,1	0	0	0	486	0	8	30	0	5	43	0	0	0	43	E
Palm oil	3696	48,8	0	0	0	0	0	11	30	0	0	41	0	0	0	41	E
Coconut oil	3665	83,7	0	0	0	0	0	10	30	0	0	40	0	0	0	40	E