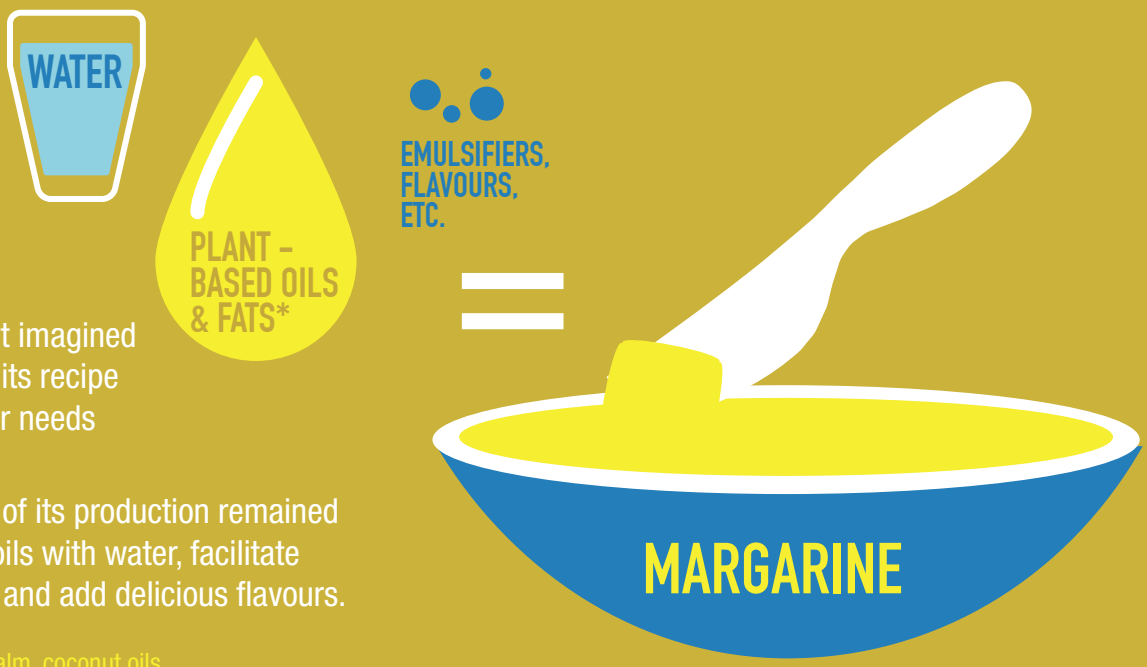
# MARGARINE, A SMART CHOICE

Choosing the right dietary fats, both in terms of quantity and quality, contributes to cardiovascular health. An overall balanced diet includes foods that contribute to the intake of polyunsaturated fatty acids (PUFA) such as fish, nuts or plant-based oils and fats and limits the intake of saturated fatty acids (SFA). Using margarines as bread spreads and cooking fats is an easy trick that can contribute to a healthy and balanced diet.

## MARGARINE, A SIMPLE RECIPE FOR EVERYDAY USE



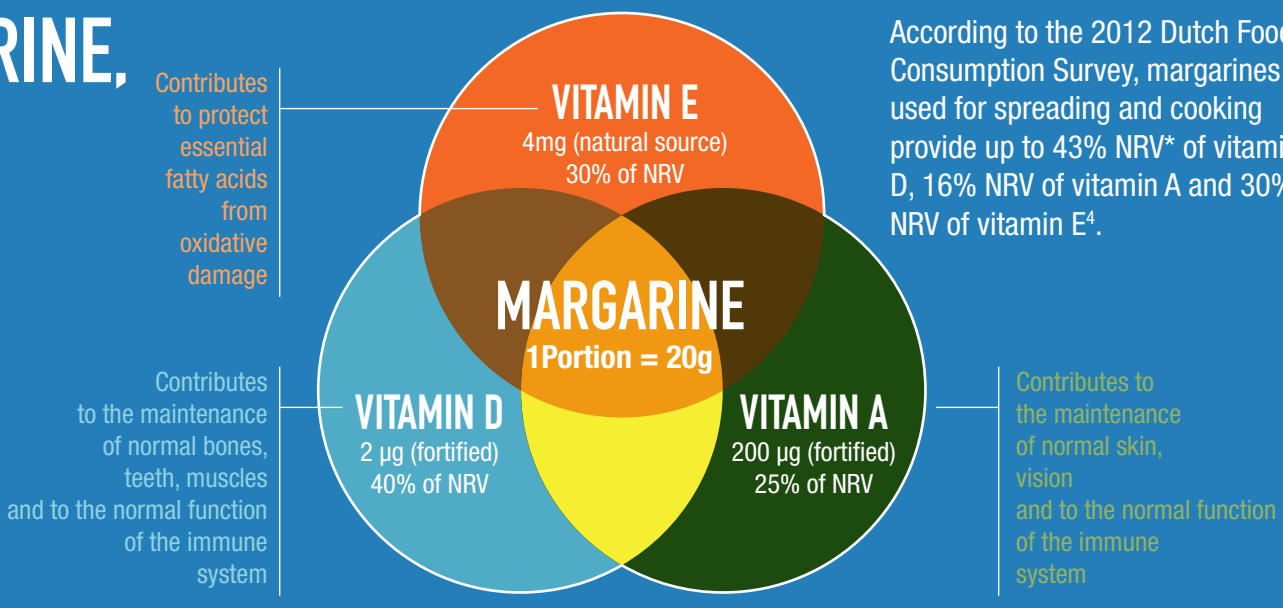

The margarine recipe was first imagined in 1869 in France. Since then its recipe has evolved to meet consumer needs and follow scientific progress.

However, the overall principle of its production remained pretty simple: mix a blend of oils with water, facilitate the blending with emulsifiers, and add delicious flavours.

*e.g.: sunflower, soybean, rapeseed, palm, coconut oils…

As margarine can be soft, liquid or hard, it can be used for spreading, topping, cooking and baking, among other uses.

## MARGARINE, A GREAT SOURCE OF VITAMINS[3]




According to the 2012 Dutch Food Consumption Survey, margarines used for spreading and cooking provide up to 43% NRV* of vitamin D, 16% NRV of vitamin A and 30% NRV of vitamin E[4].

*NRV = Nutrient Reference Value

# MARGARINE, AN ADVANTAGEOUS NUTRITIONAL FAT PROFILE

- Plant-based oils and fats usually contain less SFA than animal-based oils and fats.
- Blends of plant-based oils and fats provide both essential omega 3 and omega 6 PUFA.
- Over the decades, margarine recipes have steadily improved to reduce SFA and to increase PUFA and MUFA (Mono-Unsaturated Fatty Acids) content.
- For the past 20 years, margarine manufacturers have progressively removed TFA (Trans Fatty Acids), meaning today's retail margarines contain less than 2% of TFA on the total fat amount.

## LIPID PROFILES OF COMMON OILS AND FATS (% OF TOTAL FAT)[5]

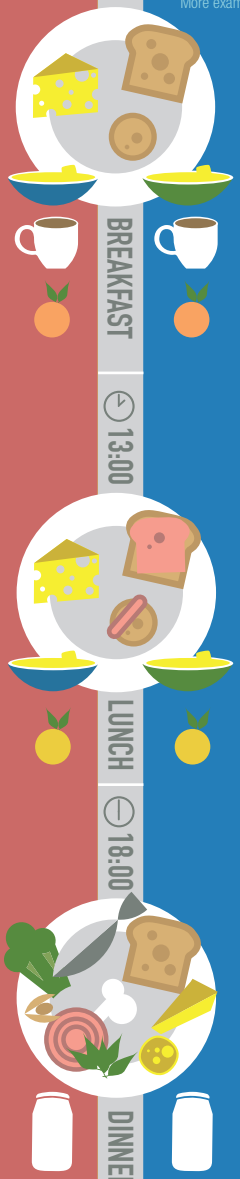
| | BUTTER* (FAT CONTENT 80%) | BAKING MARGARINE (FAT CONTENT 75–80%) | SPREADING MARGARINE (FAT CONTENT 30–35%) | OLIVE OIL | SUNFLOWER OIL |
|---|---|---|---|---|---|
| SFA | 67 | 49 | 25 | 17 | 11 |
| PUFA | 5 | 14 | 45 | 11 | 63 |
| MUFA | 23 | 36 | 29 | 72 | 26 |
| TFA | 5 | <2 | <2 | -- | -- |

*Lipid profile may slightly vary with season, feeding diet and origin of cattle.

## STANDARD DAILY MENU

Here is an example of a full daily menu. It contains all the required nutrients and is around 2,000Kcal. However, it contains more SFA than recommended.

| | KCAL |
|---|---|
| **8:00 BREAKFAST** | |
| 1 slice whole wheat bread | 82 |
| 1 slice cheese (>45% fat) | 74 |
| 1 wholemeal rusk | 40 |
| 2 servings butter | 120 |
| 1 tea without sugar or milk | 0 |
| 1 orange | 61 |
| **13:00 LUNCH** | |
| 3 slices whole wheat bread | 246 |
| 2 servings butter | 120 |
| 2 slices sausage | 104 |
| 2 slices cheese (>45% fat) | 148 |
| 1 apple | 81 |
| **18:00 DINNER** | |
| 4 sauteed potatoes w/ vegetable oil | 302 |
| 4 spoons broccoli | 54 |
| 1 serving roasted pork | 336 |
| 2 toasts with brie | 110 |
| 1 full-fat vanilla yoghurt | 124 |



TOTAL KCAL 2,002

% OF TOTAL KCAL

- CARBOHYDRATES
- PROTEIN
- SATURATED FATS
- UNSATURATED FATS

## BETTER DAILY MENU

Here is a similar but better daily menu. The highlighted products cause a decrease of the amount of SFA and an increase of the amount of unsaturated fats in the diet.

More examples can be found on www.kiesgezondvet.nl

| | KCAL |
|---|---|
| **8:00 BREAKFAST** | |
| 2 slices whole wheat bread | 164 |
| 2 slices cheese (>30% fat) | 112 |
| 2 wholemeal rusk | 80 |
| 2 servings soft margarine | 56 |
| 1 tea without sugar or milk | 0 |
| 1 orange | 61 |
| **13:00 LUNCH** | |
| 3 slices whole wheat bread | 246 |
| 2 servings soft margarine | 56 |
| 2 slices shoulder ham | 80 |
| 3 slices cheese (>30% fat) | 168 |
| 1 apple | 81 |
| **18:00 DINNER** | |
| 4 boiled potatoes | 166 |
| 4 spoons broccoli | 54 |
| 1 serving grilled salmon | 210 |
| 1 serving salad with vegetable oil | 200 |
| 1 low-fat yoghurt | 81 |
| 1 handful of walnuts | 177 |



TOTAL KCAL 1,992

% OF TOTAL KCAL

- CARBOHYDRATES
- PROTEIN
- SATURATED FATS
- UNSATURATED FATS

Margarine is an easy and tasty option for consumers to improve the quality of fats in their diet[6] . Simply switching from animal-based fats to soft margarine for cooking, baking or spreading is an efficient way to lower the intake of saturated fats[7].

For more detailed information: "Health effects of margarines and fat spreads". ISBN 9789090285962
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[1] FAO/WHO (2010) Fats and fatty acids in human nutrition. Report of expert consultation. Rome, Italy.[2] Mozaffarian D, Micha R, Wallace S (2010) Effects on coronary heart disease of increasing polyunsaturated fat in place of saturated fat: a systematic review and meta-analysis of randomized controlled trials. PLOS Med 7: e1000252. DOI: 10.1371/journal/pmed.1000252.
[3] Source for vitamin A, D and E: Code of practice IMACE, and Ciqual Table 2013.[4] Rijksinstituut voor Volksgezondheid en Milieu (RIVM) (2012) Dutch National Food Consumption Survey. Rivm.nl/vcp. [5] For margarines: Scientific report: "Health effects of margarines and fat spreads". ISBN 9789090285962. For olive and sunflower oils: FEDIOL. For butter: USDA National Nutrient Database for Standard Reference, Report 01145.[6] Nordic Nutrition Recommendations 2012 Integrating nutrition and physical activity ISBN 978–92–893–2670–4.
[7] Task Force for the improvement of the Fatty Acid Composition/Task Force Verantwoorde Vetzuursamenstelling; eindrapportage 2003-2010, page 60.