

Potatoes in a healthy eating pattern: the new Flemish Food Triangle

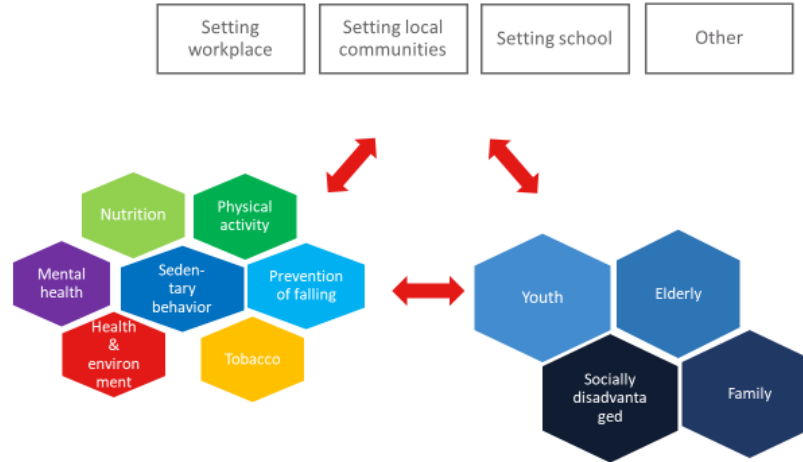
Europatat congress

04/05/2018

Introduction Vlaams Instituut Gezond Leven

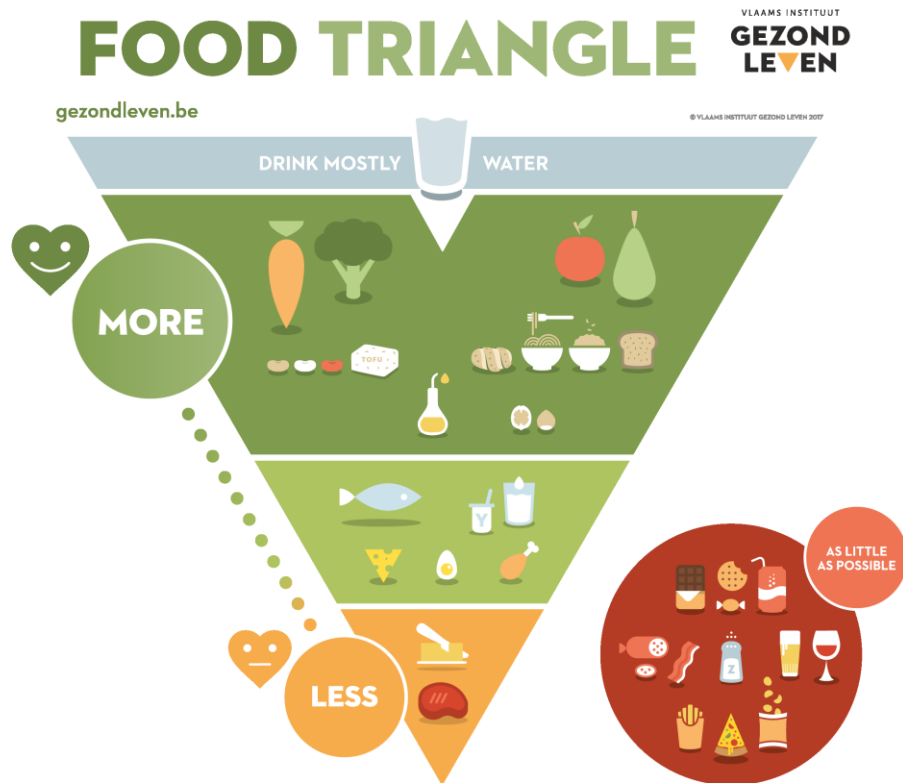
- Expertise centre on health promotion and disease prevention

Setting – theme – target group



- Funded by the Flemish government, dept of public health (currently Minister Jo Vandeuren)

Since September 2017



PHYSICAL ACTIVITY TRIANGLE

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New Food Triangle: why and how?

Through the years...



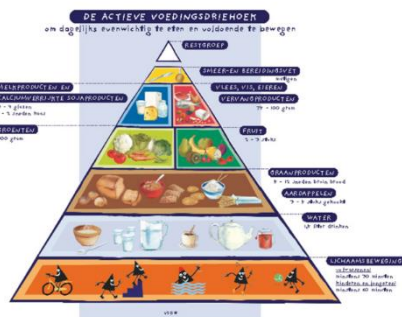
1967



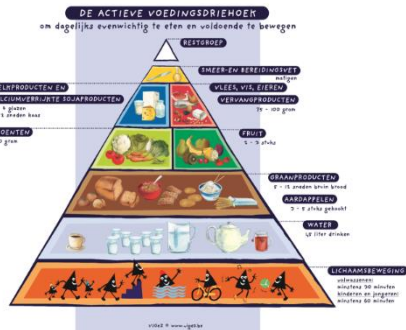
1997



2000

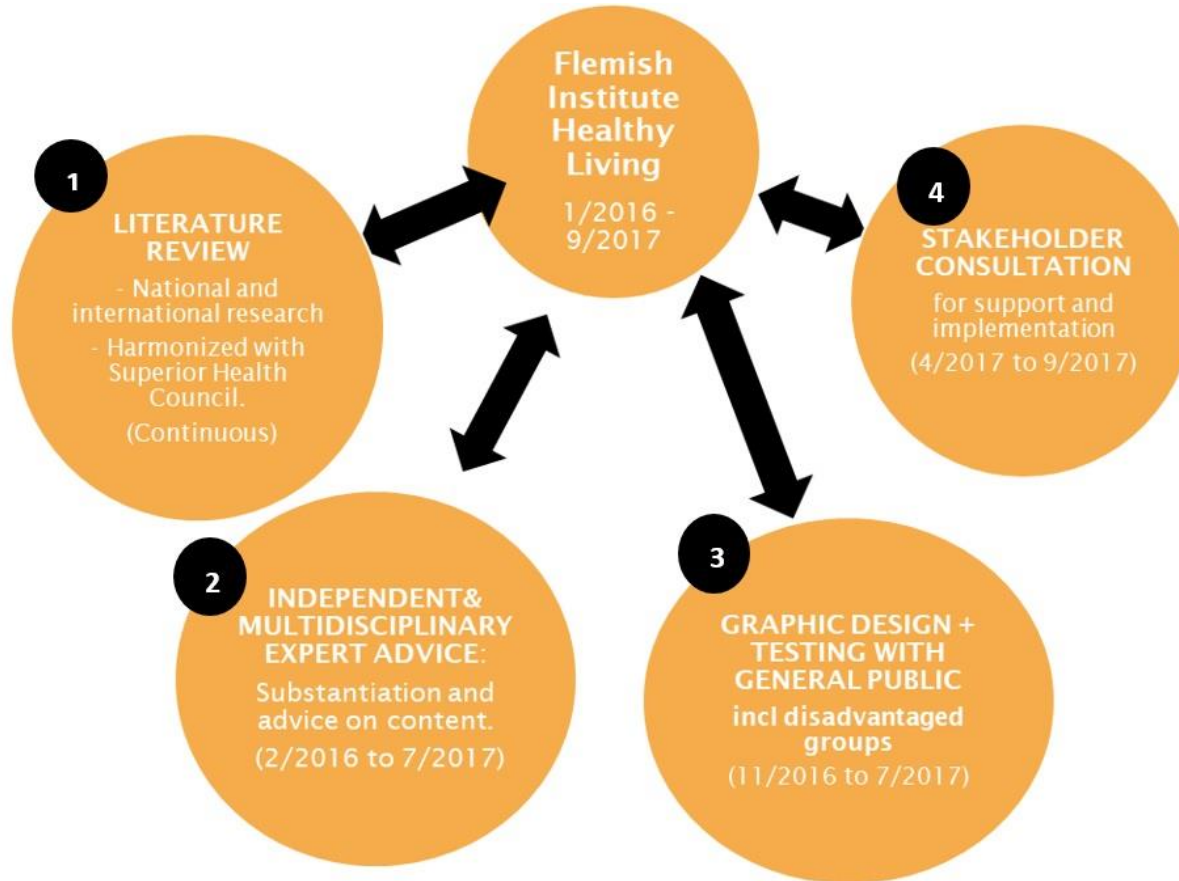


2004



2012

How did we get there?



Our goal

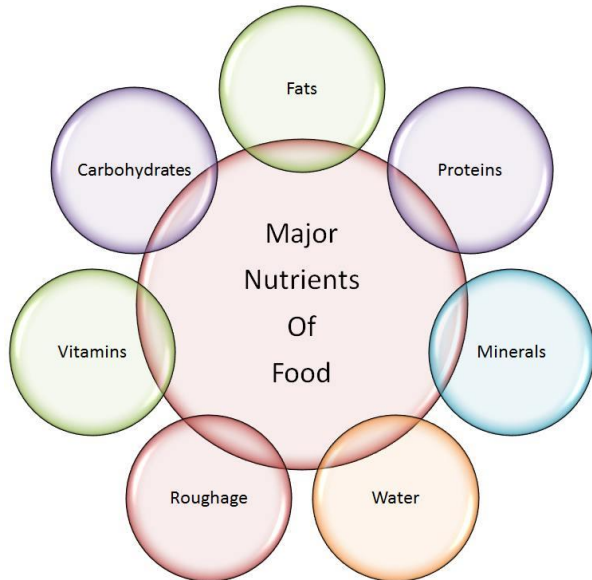
To create a food guide and recommendations:

1. For optimal **health promotion and disease prevention**
2. With minimal impact on the **environment** (sustainability)
3. And in line with the current **food culture** and eating habits in Flanders/Belgium

1. Food and health

Rated by a holistic approach to nutrition

- Contribution to **nutrient intake**



- Evidence on health effects of the **foods and food groups as a whole** (including aspects like food matrix, satiety, glycemic index, degree of food processing...)



2. Food and sustainability

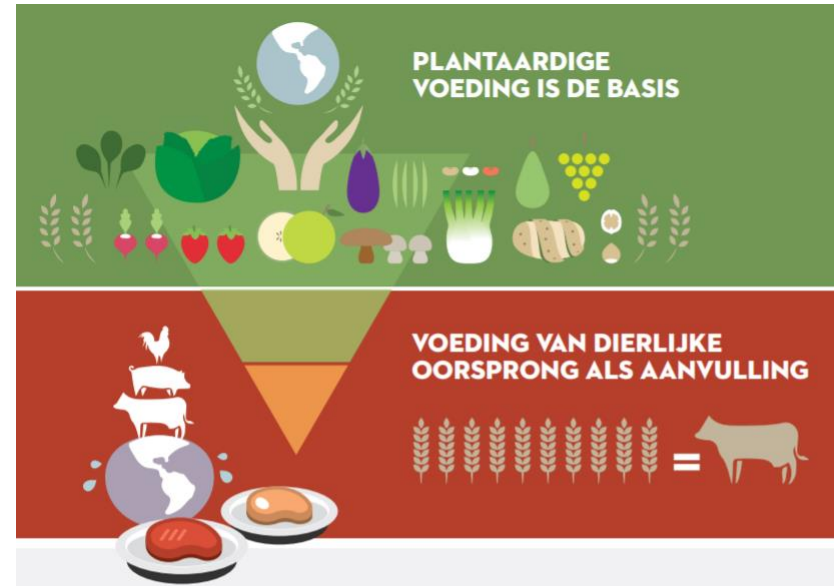
Considered as the ecological aspect (CO₂, use of land and water...)

A sustainable **eating pattern**:

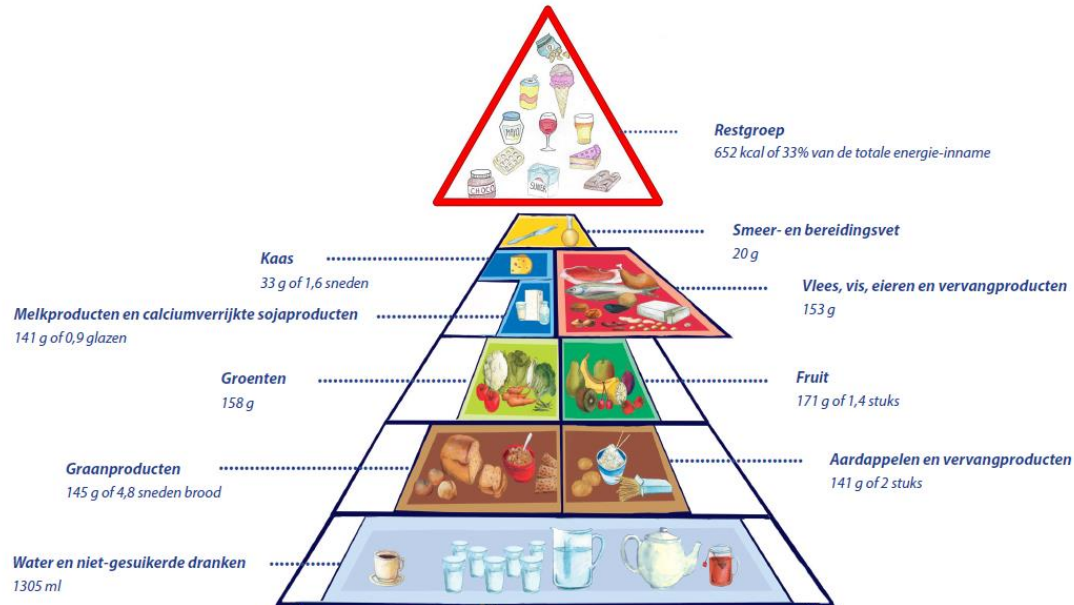
- Includes more plant-based foods as compared to foods from animal origin
- Avoids overconsumption and food waste

Whether a **specific food** is sustainable depends on different aspects:

- Production method
- Transport
- Processing
- Packaging
- Preservation
- ...



3. Current eating habits in Belgium (Food Consumption Survey 2014)



WIV-ISP gebaseerd op VIGeZ©

De Ridder K, Bel S, Brocatus L, Cuypers K, Lebacqz T, Moyersoen I, Ost C & Teppers E. De consumptie van voedingsmiddelen en de inname van voedingsstoffen. In: Bel S, Tafforeau J (ed.). Voedselconsumptiepeiling 2014-2015. Rapport 4. WIV-ISP, Brussel, 2016.

Outcome: 3 basic recommendations

For healthy and sustainable eating

- ▶ Eat proportionally more **plant based foods** than foods from animal origin
- ▶ Give preference to **minimally processed foods** and limit the consumption of ultraprocessed foods as much as possible
- ▶ **Avoid overconsumption and food waste**



The Food Triangle: from knowing better to eating better

FOOD TRIANGLE

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Classification of foods in coloured zones

Blue – dark green – light green – orange – red (+ grey)

Based on:

- ▶ their effect on our health
- ▶ the proportion of plant-based foods versus foods from animal origin
- ▶ whether the food contributes to a healthy and sustainable diet (or is redundant)



Blue

Water is the best choice

- ▶ Drinking water is especially important for keeping your **fluid** levels in balance.
- ▶ Need variety? It's okay to choose tea or coffee (preferably without adding sugar), or try flavoured water (without sugar/sweeteners).



Dark green

Plant-based foods which are not or little processed

- ▶ Foods with a **beneficial effect on health**
- ▶ Eat plenty of vegetables, fruits, whole grains and legumes.
- ▶ Supplement them with small amounts of nuts, seeds and plant-based oils.



Light green

- ▶ Foods from **animal origin** with a **favorable, neutral or insufficiently proven effect on health**
- ▶ Fish, yoghurt, milk, cheese, poultry and eggs.
- ▶ Choose the little or non-processed variety here too.



Orange

- ▶ These are the foods originating from **animals or plants** that can have an **unfavourable effect on health when consumed in high amounts**
- ▶ Red meat, butter, coconut and palm oil (fats rich in saturated fatty acids)
- ▶ These products do contain some useful nutrients; for example, iron in red meat, fat-soluble vitamins in butter.



Foods outside the triangle

What's in the red zone?

Foods rich in **sugar** such as chocolate, cookies, cakes and pastries, sweets, chocolate spread – often rich in **(saturated) fat**

Drinks rich in **sugar** such as soft drinks, sports and energy drinks





Foods outside the food triangle

Why are these foods set apart?

- ▶ Highly processed products
 - High amounts of added sugar, (saturated) fat and/or salt
- ▶ These are foods with **high energy density** (high calories) and **low nutritional value** (they contain few necessities such as vitamins, minerals and fibres).
- Redundant and possibly health-damaging

Foods outside the food triangle

Can we still eat foods from the red category?



- ▶ Yes, but consider them as extras
- ▶ They are superfluous to a healthy diet.
- ▶ Limit the frequency and take small portions.
- ▶ Go for a balanced diet
 - Consisting mostly of unprocessed foods and freshly prepared meals
 - Small amounts of highly processed, ready-to-eat foods

10 Messages for Healthy eating

► What?

1. Foods derived from plants are the basis of every meal
2. Add small amounts of foods from animal origin
3. Eat as little ultraprocessed foods as possible
4. Drink mostly water

► How?

5. Vary and switch to healthier alternatives
6. Eat at regular times and when possible in company
7. Eat consciously and not more than necessary
8. Create your own healthy environment
9. Work step by step
10. Enjoy your food!





Potatoes in the new Food Triangle

Resume of the science on foods and health

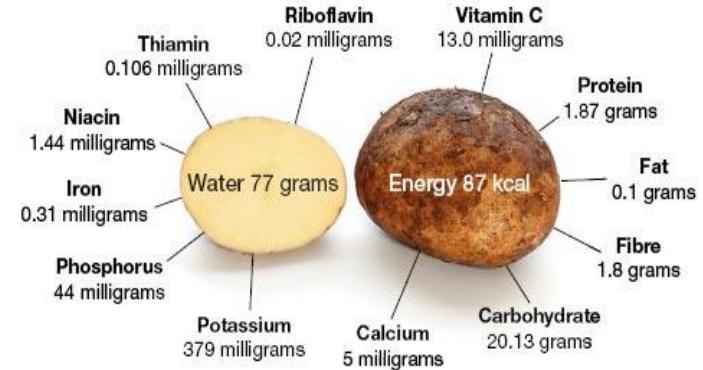
Positive link with health	Neutral (=) or unclear (?) link with health	Negative link with health
Vegetables and fruit	Poultry (white meat) (=)	Red meat
Whole grains	Eggs (=)	Processed meat
Legumes e.g. beans, lentils	Milk and milk products (?)	Alcohol
Nuts and seeds	Cheese (=)	Sugary drinks (and foods)
Oils and fats rich in unsaturated fatty acids e.g. olive oil	Potatoes (?)	Oils and fats rich in saturated fatty acids e.g. butter, coconut oil
Fish	Refined grains(?)	Salt (and salty foods)
Tea (green, black)	Coffee (?)	

Resume from: Fardet A, Boirie Y., Nutr Rev. 2014; Gezondheidsraad Nederland, Richtlijnen goede voeding 2015; Dietary Guidelines Advisory Committee USA, Scientific report 2015; Anses, Actualisation des repères du PNNS 2016

Potatoes and health

Contribution to nutrient intake:

- ▶ Source of:
 - Carbohydrates (starch), protein, fiber (skin)
 - Micronutrients: vitamin C, B-vitamins, potassium...
 - Bio-active compounds: polyphenols, lectins, resistant starch...
- ▶ High nutrient density for a relatively low energy density (calories)



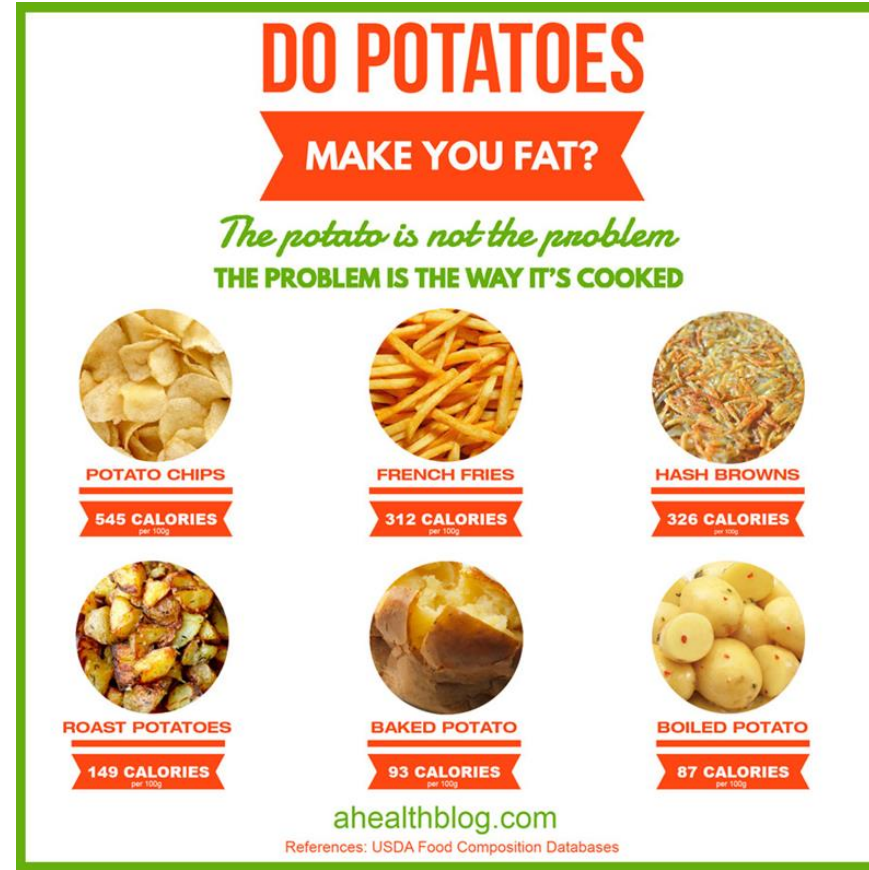
(Per 100 g, after boiling in skin and peeling before consumption)

Source: United States Department of Agriculture, National Nutrient Database

Potatoes and health

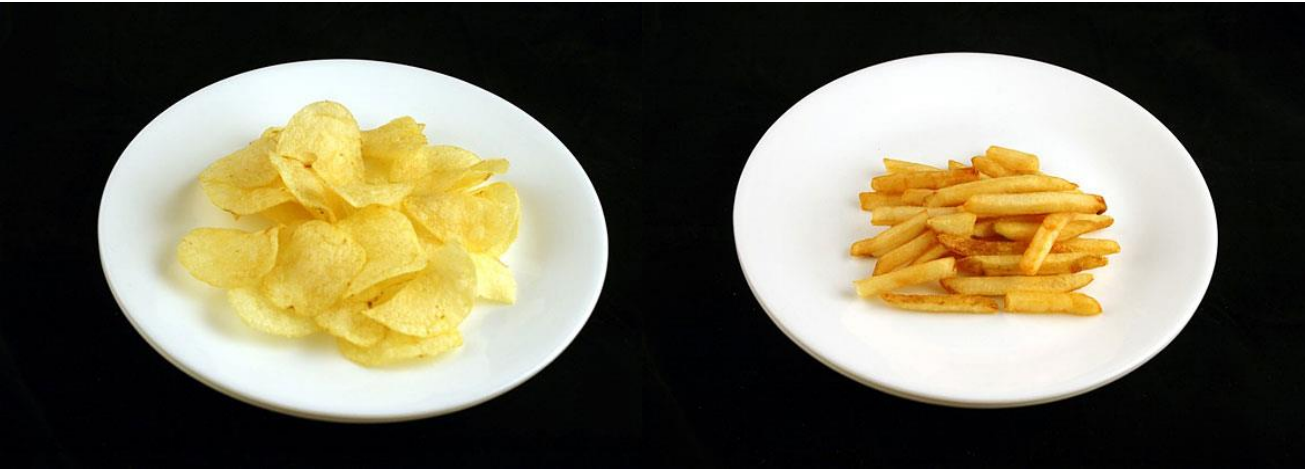
Other aspects to consider

- ▶ High **glycemic index**: but is this relevant?
- ▶ High **satiety**: high volume for low calories
- ▶ Variety in **preparation**:
Boiled, baked (in skin), mashed, fried...
- ▶ Culinary **tradition**:
Considered as a vegetable or as a carbohydrate source (alternative for rice, pasta, bread...)

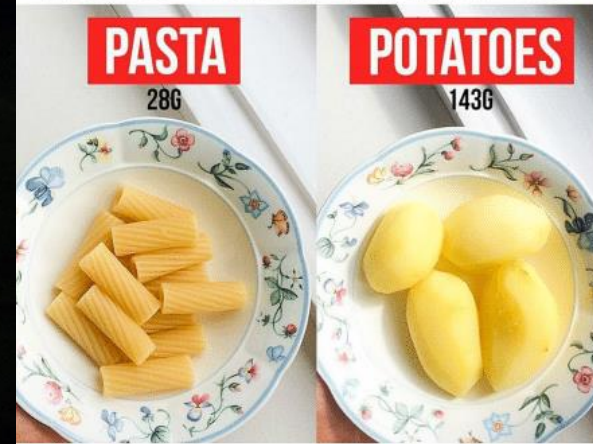


Examples of large variety in energy density

200 calories



100 CALORIES



Potatoes and health

Link between potato consumption and chronic disease risk

Available evidence related to increased risks of obesity, type 2 diabetes (T2D), and cardiovascular disease (CVD):

- ▶ all observational studies
- ▶ inconsistent results for **potatoes** in relation to overweight and obesity (5 studies) and T2D (7 studies).
- ▶ **french fries** were more consistently positively associated with adiposity and T2D.
- ▶ one single study that investigated CVD showed no relation between intake of potatoes and CVD.

Source: Borch D, Juul-Hindsgaul N, Veller M, Astrup A, Jaskolowski J, Raben A. Potatoes and risk of obesity, type 2 diabetes, and cardiovascular disease in apparently healthy adults: a systematic review of clinical intervention and observational studies. Am J Clin Nutr. 2016;104(2):489-98.

Potatoes and health

Link between potato consumption and chronic disease risk

The current evidence is **not sufficient** to make clear-cut, unambiguous statements:

- ▶ Few studies distinguished between potato preparations
- ▶ Overall eating behavior could be speculated to differ between consumers of boiled potatoes and french fries

Conclusion:

more research needed, especially long-term randomized controlled trials

FOOD TRIANGLE

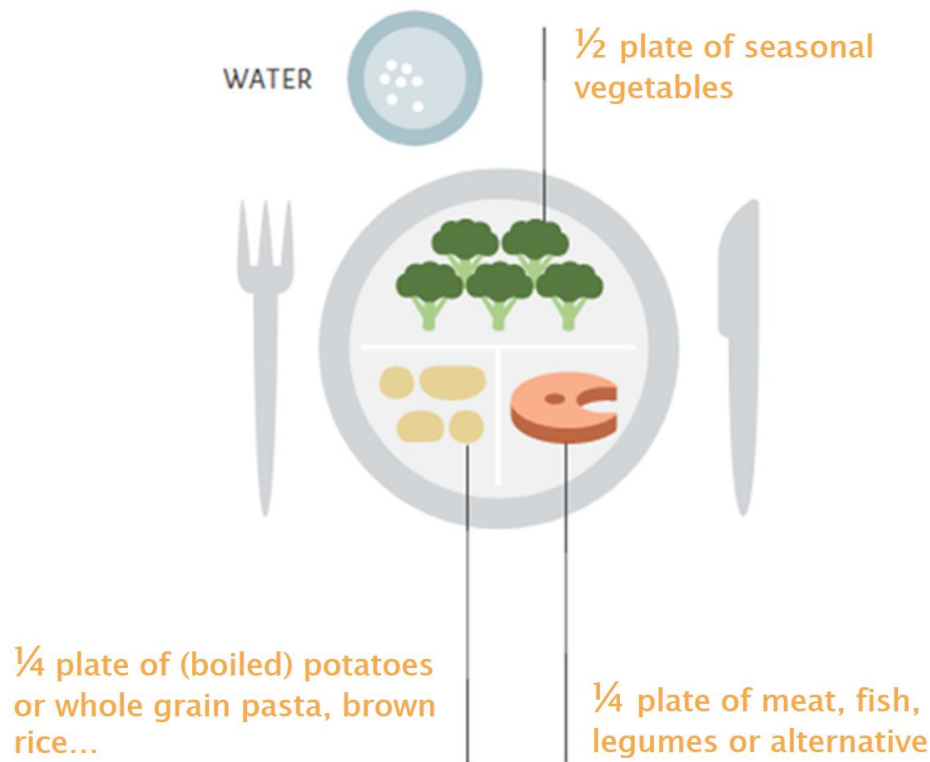
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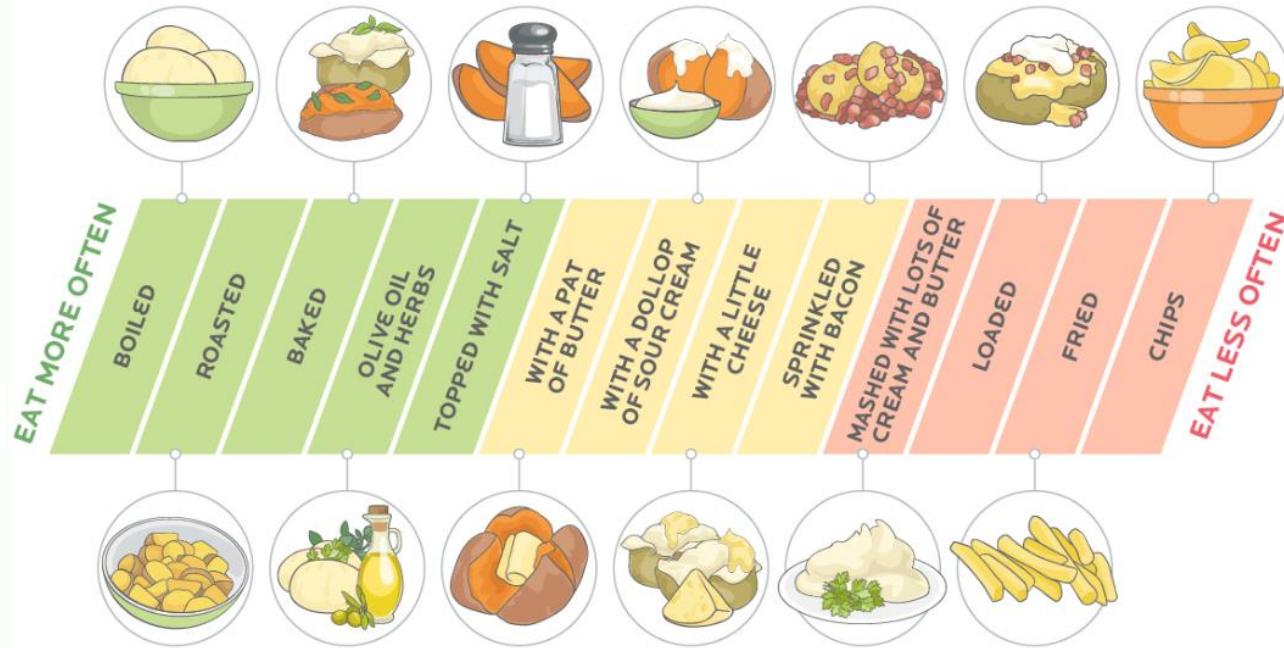


As part of a balanced meal



Source: www.gezondleven.be

Tubers get a bad rap because they're often used for high-calorie dishes. In reality there's a range of ways in which potatoes and sweet potatoes fit into a healthy diet.



Source: <https://www.precisionnutrition.com/sweet-potatoes-vs-potatoes-infographic>

Thank you!

Any questions?

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