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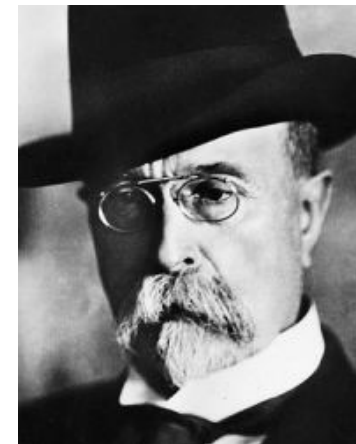
# **Introduction of MU Brno**

## **Geographic profile of Czech Republic**

Michaličková Dominika, Antošová Tereza

# MASARYK UNIVERSITY

- founded in 1919 in Brno
- second largest university in Czech Republic
- named after first Czechoslovak president Thomas Garrigue Masaryk (1993: Czechoslovakia separated peacefully into the Czech Republic and Slovakia)
- 10 faculties, 400 study programmes, 30 500 students

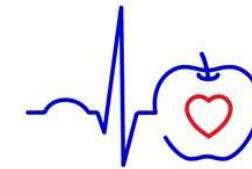


Thomas Garrigue Masaryk

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Masaryk University - Faculty Of Medicine

# DIETITIAN STUDY PROGRAM



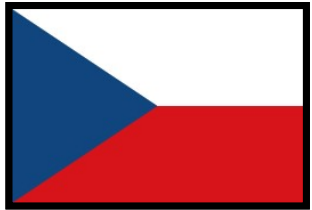
- provided by Faculty of Medicine
- students may enrol in a Bachelor's degree programme after successfully passing the school-leaving examination
- the studies last three years and after passing the final state examination, the graduates obtain the Bachelor's degree
- it is possible to continue in follow-up Master's programme Dietitian specialized in adult and child nutrition
- September 2021 - the first The Dietetic Counselling Office NutriMUNI at the Department of Public Health for public

# DIETITIAN STUDY PROGRAM

- after graduation dietitian is a qualified healthcare professional
- practical training of a total of 12 weeks (480 hours) - practice starts in the second semester and is spread over five semesters
- the acquired knowledge and skills can be used in ambulances of medical facilities, in nutrition counselling, educational centers, departments or clinics of healthcare facilities, social care institutions, intensive care units, dialysis centers



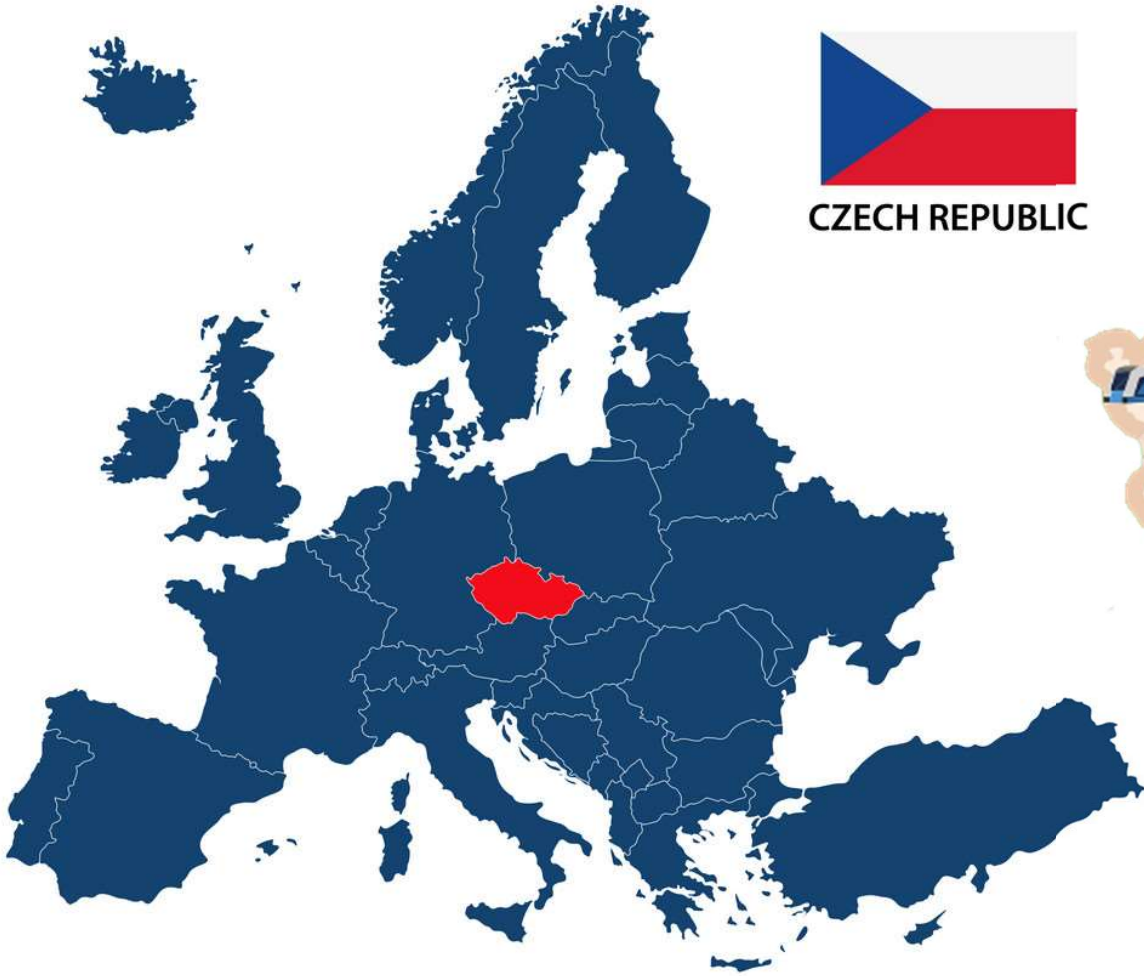




# GEOGRAPHY

- **Area:** 78 871 km<sup>2</sup> (located in Central Europe)
- **Population:** 10 682 029
- **Capital:** Prague
- **Official language:** Czech
- Parliamentary republic
- Czech Republic is a member of European Union
- bordered by Austria, Germany, Poland and Slovakia
- **The highest mountain** in the Czech Republic is Sněžka (1 603 metres above sea level)





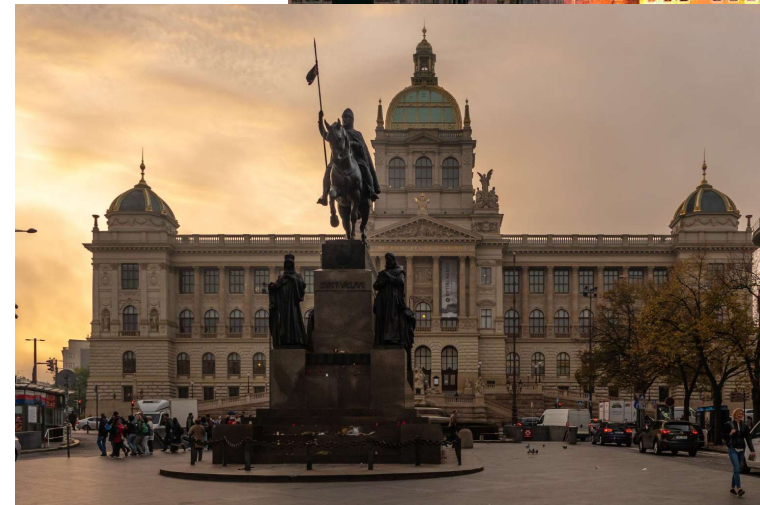
CZECH REPUBLIC





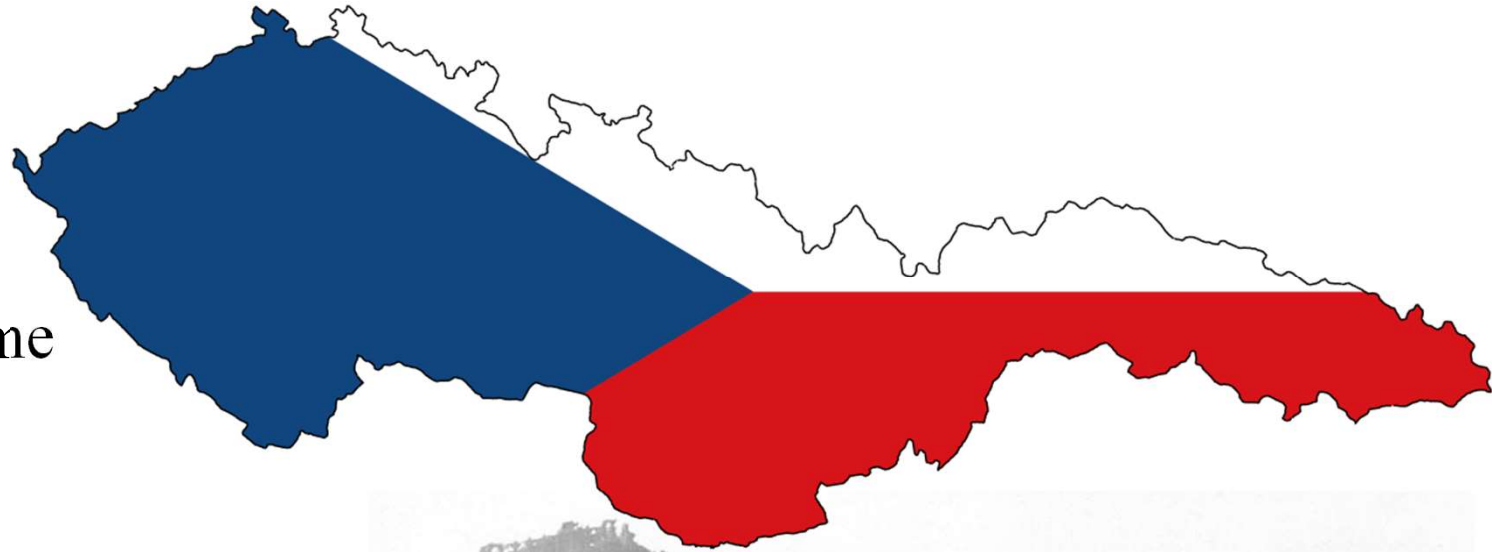
# PRAGUE

- Capital and the largest city
- **Main attractions:** Prague Castle, Charles Bridge, Old Town Square
- **Movies :** Spiderman: Far From Home, Snowpiercer, Mission: Impossible



# HISTORY

- Czechoslovakia became independent in **1918**
- After the World War II broke out, the Nazis gained control over our country
- At the end of the war, half of our territory was liberated by the Allies and half by the USSR





# HISTORY

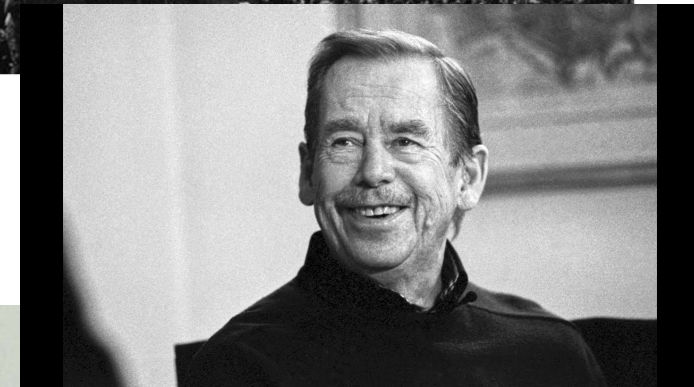
- for nearly 50 years, Czechoslovakia was under strict **communist regime**, controlled by the Soviets and became a state of the Eastern block
- Attempts were made to change the government, resulting in the USSR invading us in **1968**, regaining control of the regime





# HISTORY

- In 1989, people overthrew the government and established democracy – this is known to the world as the **Velvet Revolution**
- In 1993, Czechia and Slovakia split, creating 2 independent states



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**Agriculture production  
Religion and it's relationship to food**

Alena Rejsková, Marijana Vasilić

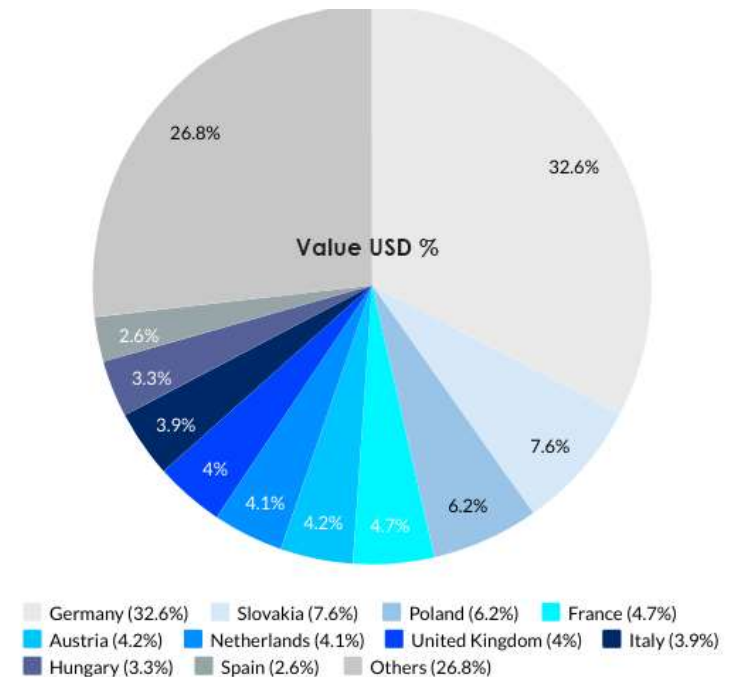
- There are a lot of families that have small farms and gardens.
- The Association of Private Farmers currently has 7,500 members. They cultivate almost 40 percent of the agricultural land in the Czech Republic
- Poultry, cattle and pig farming are dominant.
- one person eats 80.3 kg of meat per year



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# Export

- Food represents 4.3% of Czech exports
  - Of all Czech breweries, Plzeňský prazdroj exports the most, specifically to Germany and South Korea
- In 2019 exports were one million hectoliters
- 144 litres of beer are consumed per person in the Czech Republic





# Plzeňský prazdroj - Pilsner Urquell

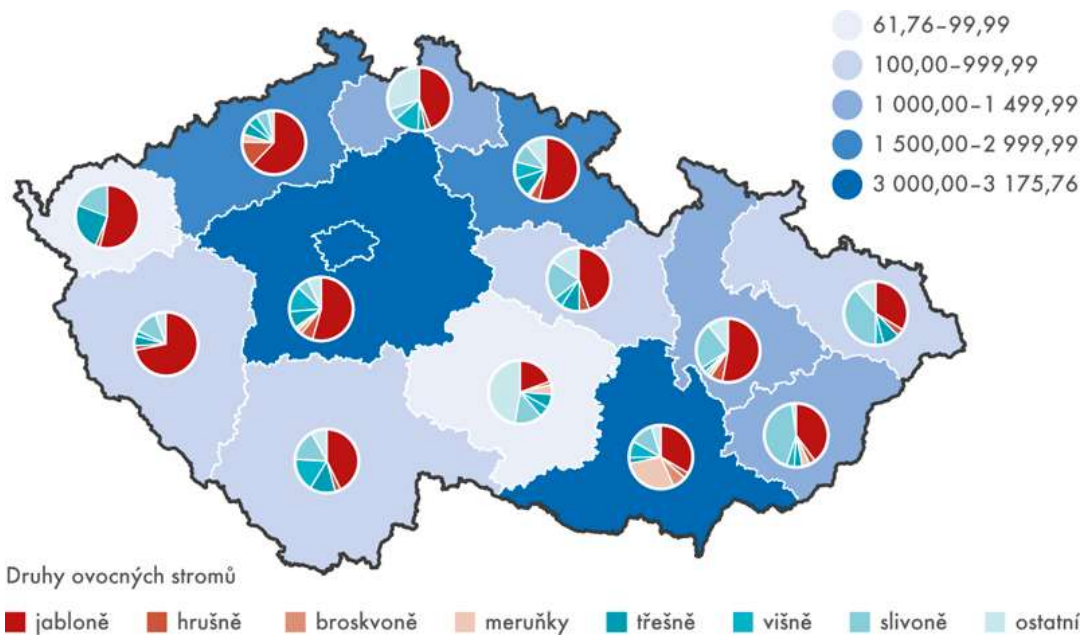


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- Half of all available crop area is occupied by four types of crops: soybeans, wheat, rice and maize
- 14 000 tons of apples are produced annually.



# food connected with religion

- no specific habits most of the year
  - wafer (bread) and wine in church (body and blood)
- religious holidays
  - Christmas
  - Easter
  - Hody („feast“)

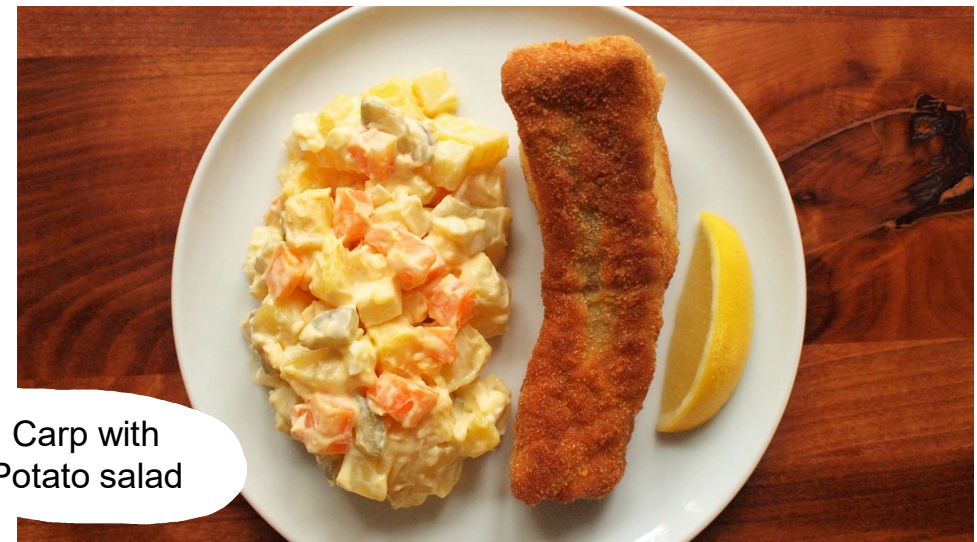


# Christmas

- fasting (December 24) – to see „golden pig“
  - symbol of future prosperity
- scale is placed under each plate
  - it represent good fortune in the year to come
- Typical Food
  - Staročeský Kuba (Old Czech “Kuba”)
  - Fish Soup
  - Carp/Schnitzel with Potato Salad
  - Christmas Bread = vánočka
  - Christmas Cookies
  - Eggnog/eierlikor = vaječnák
- Midnight Mass - December 25



Staročeský  
kuba



Carp with  
Potato salad





Christmas cookies



Fish soup



Christmas bread = vánočka



eggnog



# ŠTĚDROVEČERNÍ VEČEŘE

Co jíš při štědrovečerní večeři?

43 %

KUŘECÍ ŘÍZEK



12 %

RYBU  
JINOU  
NEŽ  
KAPRA



28 %

KAPRA



7 %

VEPŘOVÝ ŘÍZEK



5 %

NĚCO JINÉHO



3 %

VINNOU KLOBÁSU



2 %

BEZMASÉ JÍDLO



# Easter - Lent



- Lent = period of fasting and penitence in preparation for Easter, which begins on Ash Wednesday (popelční) and lasts 40 days (not counting Sundays)
  - Fasting don't have to include just food (fasting from social media, coffee etc.)
- The **last three days before Easter** are:
  - **Maundy Thursday** (zelený = green) – eating something green (spinach, pea etc.), fasting
  - **Good Friday** (velký = great) – official national holiday, fasting (one main meal, 2 small meals), vegetarian and light food
  - **Holy Saturday** (bílá = white) - symbolizing Jesus' resurrection from the dead, end of fasting
- Easter Sunday - Resurrection of Jesus
  - Meat for lunch, sweet dough lamb

# Easter

- Woman prepare eggs (decorating, painting), man prepare „pomlázky“
  - Pomlázky = braided whips made from pussy-willow twigs and colorful ribbons, which are used by boys (and sometimes men) to chase and gently whip girls and women on Easter Monday morning
  - Tradition says that it bring **health and fertility** to those whipped
- Decorated eggs are given to the whip bearers





# Easter

## Traditional food

- Sweet dough lamb
- mazanec (sweet yeasted bread made with rum-soaked raisins and topped with almonds)
- “Judas rolls” from sourdough
- Baked stuffing
- Eggs (eggsread)

Sweet dough lamb



Baked stuffing

Mazanec



Judas rolls

## „Hody“ – Feast

- anniversary of the foundation of a church (or the parish) and in honor of the patron
- feasting, dancing and sports of all kinds
- 1) pies (posvícenecké = parish fair?)
- 2) festive duck, chicken, goose
- abundance



# Czech foods and eating habits

Adéla Durčáková, Vendula Hlivová NUT MUNI 2022



# typical breakfasts



2

**pastry** - 1 "rohlíky" 2 bread with butter and cheese/ham/honey/jam 3 "pletýnky"  
4 "koblihy" / jam filled donuts 5 buns with poppy/jam 6 "koláče" 7 "vánočka" 8 "loupák"

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# typical lunches



- at noon
- biggest meal of the day
- **soup** – thickened with a “zásmažka” - heated fat, onions and flour
- **main course** - thickened sauce + meat + potatoes/rice/pasta/dumplings or sweet meals
- **compotes** – homemade from garden fruits (apples, pears, currant, plums, gooseberry,...)
- or **salads** – from garden vegetables with onion, vinegar, salt and sugar





liver dumpling



“dršťková”



garlic



homemade compotes



“guláš”



schnitzel



“knedlo vepřo zelo”



st. marin goose



dill sauce



lentils with eggs



“bramboráky”



fried cheese



“langoše”



fru/povi/quark dumplings



“žemlovka”



buns with cream

# typical dinners



1 “utopenci” / sausages loaded with onions and vinegar

2 “smaženice” – mushrooms with eggs

3,4 smoked meats and meat products – „tlačka, paštika,...“

5 pickles

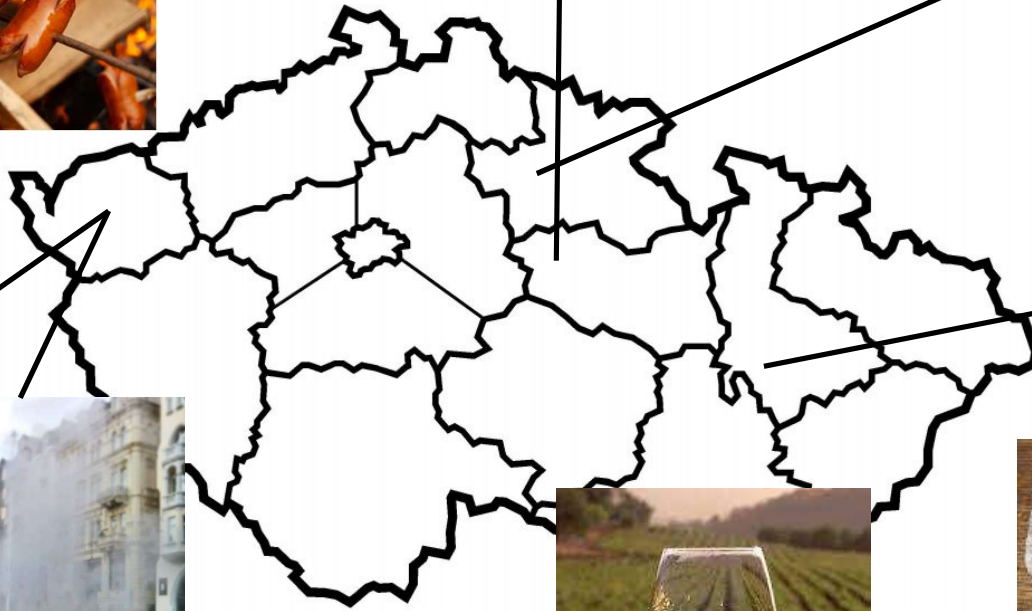
+ pastry



# typical czech products



# local products





# School food system

- Kindergarten
  - snacks + lunch
- Elementary school and high school
  - Lunch
- University
  - Menza





# hospital food system



# Diet system

Number of diet	Name of diet
0	Liquid
1	Slurry, light
2	Light
3	Basic
4	Restriction of fat
5	Restriction of residue
6	Restriction of protein
8	Reduction
9	Diabetic
10	No salt, light
11	Nutritious
12	For toddlers
13	For children (3-6 y.o)
14	Special diet procedure

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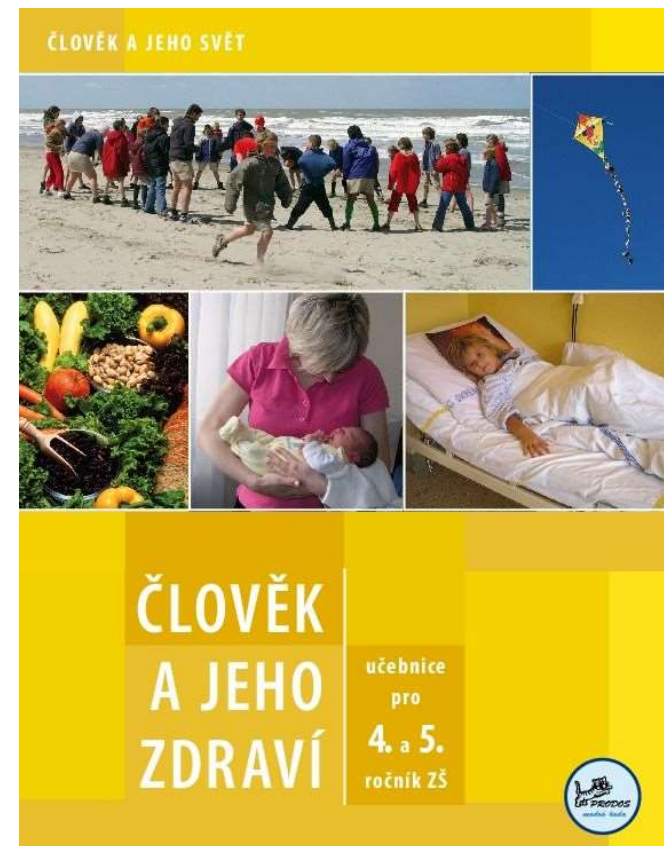
# **Nutrition education and health programs in Czech republic**

Karolína Beranová, Anna Sekáčová



# Nutrition-part of the education system

- Elementary school
  - Subject EDUCATION FOR HEALTH
    - leads students to a healthy lifestyle, development and protection of their health, but also includes education on interpersonal relationships
  - Not just about nutrition but also about other health information



# School project "Fruit, vegetables and milk for schools"

- Primary school children regularly receive fruit, vegetables, milk and unflavoured dairy products **for free**. The fruit and vegetable juices and purees supplied must be free from added sugar, fat, salt, sweeteners and preservatives.
- The aim is:
  - to create healthy eating habits in children.
  - Sustainably increase children's consumption of fruit, vegetables, milk and dairy products to prevent the development of diseases associated with poor dietary habits.



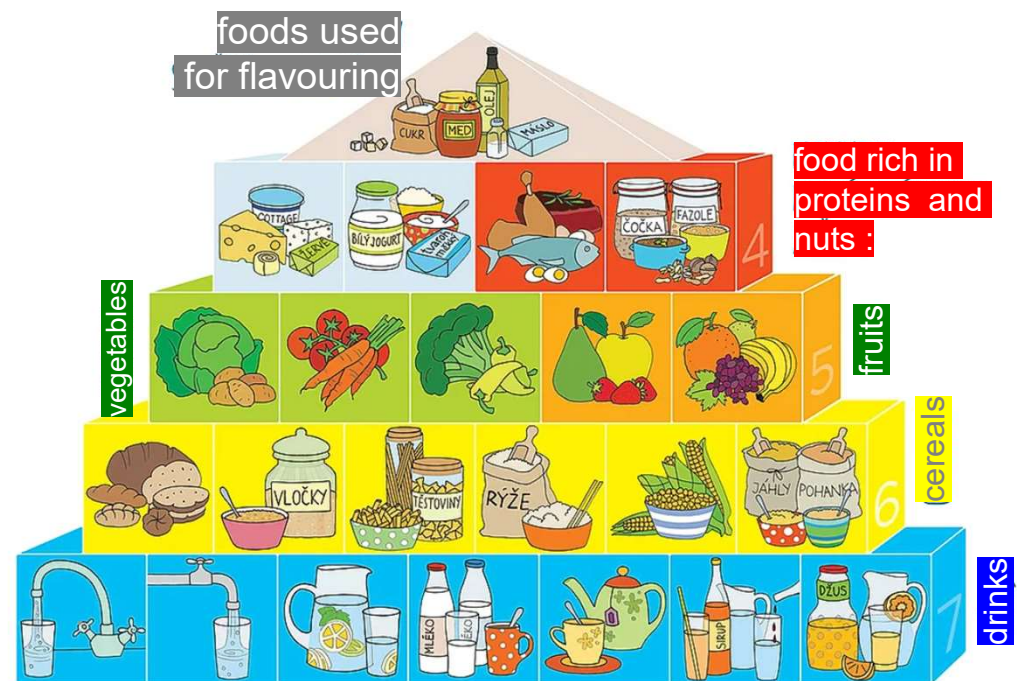
# Dietary guidelines in the Czech Republic

- The guidelines cover a total diet, not only a part of it
- respect to actual frequency of food in majority of population
- declaration of nutritional goal
- dividing the food into defined food groups
- setting the serving sizes
- working out the strategy of implementation in practise



# “Výživa na vlastní pěst“ (Nutrition on your own)

- Basics of nutrition unique for everyone 😊
- Content :
  - Pyramid of nutrition - basic principle , pyramid in practice, every meal is good to consist of all the tiers, the food pyramid, some days can be meatless, sneaky cubes, what the label tells us, summary
  - [szu - nutrition on your own](#)



[Public National Health Institute - website](#)

# Reference values for nutrient intake

- The publication is intended for professionals in health, food, agriculture, education and all other fields dealing with human nutrition
- the reference values correspond to the current scientific knowledge about the nutrition, lifestyle and living conditions of our population
- the reference doses were taken from countries also referred to as DACH doses (Germany, Austria, Switzerland)
- EFSA (European Food Safety Agency)
- information on essential macronutrients, vitamins, minerals and trace elements is also provided



# Hospital nutrition care

- methodological recommendations for the provision of food and nutritional care
- Aim:
  - to strengthen the effectiveness of the nutritional care system
  - improving the quality of hospital catering
  - improving the nutritional risk screening system, diagnosing nutritional status and setting nutritional goals





# Health promotion

## – Screening programmes

- The aim of is to increase the early detection of cancers and pre-cancerous conditions, to increase the proportion of early-stage malignancies at the expense of advanced cancers, which will lead to a decrease in mortality from these diseases.
- Mammary screening
- Colorectal cancer screening
- Cervical cancer screening
- Cholesterol plus triacylglycerols, HDL- and LDL-cholesterol (lipid metabolism disorders as a risk factor for atherosclerosis)
- Glycemia (Diabetes mellitus)
- Prostate cancer screening

## – Strategic framework for the development of health care in the Czech Republic until 2030



- The Health 2030 strategic framework groups specific objectives into three strategic goals:
  - Protecting and improving public health
  - Optimising the health system
  - Promoting science and research
  - [Strategic framework for the development of health care in the Czech Republic until 2030](#)

# Demographic and health profile of people living in Czech republic

## – Obesity:

- threatens 18.5% of Czechs, of whom almost 20% are men and 18% women
- 47% of men and 33% of women are moderately overweight
- The average BMI (body mass index) of the Czech population is 25.2, which is just above the upper limit of a normal healthy weight

## – Physical activity:

- 40% of Czech adults do not engage in any sport or recreational physical activity
- Physical exercise is closer to men, who spend an average of 3.6 hours per week on it, women spend only 3.2 hours
- Women pay more attention to diet than to exercise.

# Demographic and health profile of people living in Czech republic

## – Diabetes mellitus:

- more than 900,000 patients with diabetes were registered in 2016, the vast majority have type 2 diabetes
- Another 60 thousand people fall ill every year
- In 2018, a total of 4,182 people died of type 1 and type 2 diabetes mellitus
- Currently, diabetes is the fourth leading cause of death in our country

## – Causes of death:

- The three most common causes of death are:
  - cardiovascular disease
  - lung cancer
  - colorectal cancer



## Sources:

- <https://www.nzip.cz/clanek/5-potravinova-pyramida-v-praxi>
- <http://www.szu.cz/tema/podpora-zdravi>
- <https://www.mzcr.cz/category/programy-a-strategie/zdravi-2030/>

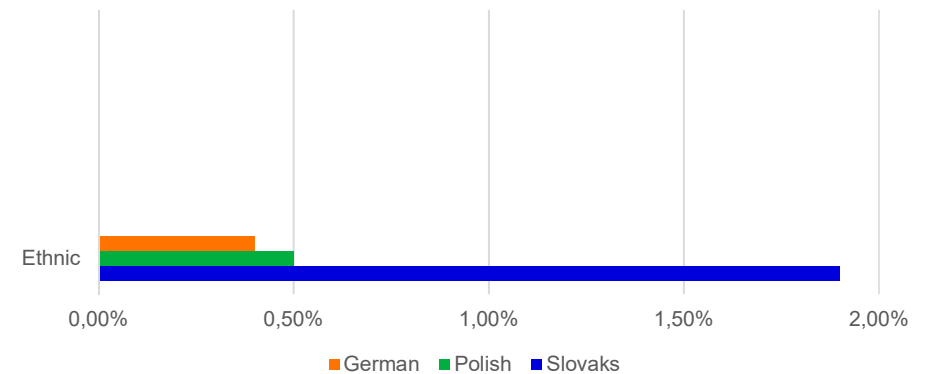
## DEMOGRAPHIC

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The number of inhabitants of Czech Republic is about 10.2 million.

The population consists of 94% ethnic Czechs, 1.9% Slovaks, 0.5% Polish and 0.4% German.

Roman Catholics account for 26.8% of the population; atheists account for about 59% of the population

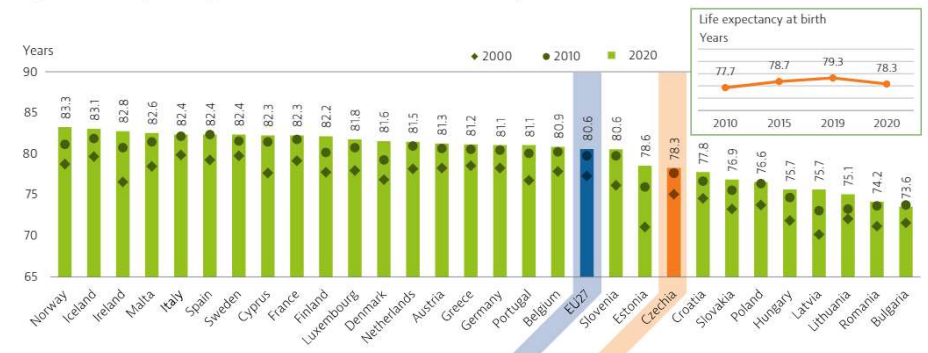


# HEALTH IN CZECH REPUBLIC

In 2020, life expectancy at birth in Czech republic was **78.3 years** (which is 2,3 years below the EU average)

In 2019, there was a difference between the capital and smaller regions. For example life expectancy for men living in Prague was more than **4.0 years higher** than for men living in the smaller one.

Figure 1. Life expectancy at birth in Czechia is more than two years below the EU level



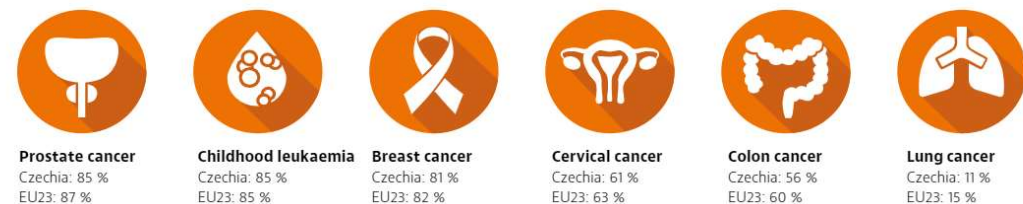


## COMMON HEALTH ISSUES IN THE CZECH REPUBLIC

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- Cardiovascular diseases
- Cancer
- Common infection diseases
- Chronic diseases
- Obesity
- Diabetes
- Neurodegenerative diseases

Figure 13. Czechia was close to the EU average in five-year cancer survival rates



## MAIN CAUSES OF DEATH

**Cardiovascular diseases** (especially ischaemic heart disease) are the leading cause of death among both – women (about 50% of total deaths) and men (about 42%), with 60% higher than the EU Average (2014).

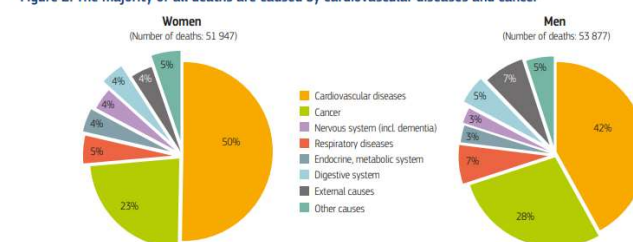
**Cancer** (lung cancer) is the second leading cause of death, accounting for 23% of all deaths among women and 28% of all deaths among men.

**Diseases of the digestive system** and **disease of the endocrine system** are also prevalent, especially for people with diabetes 2.

Other causes: **respiratory disease**, colorectal cancer, chronic obstructive pulmonary disease, pneumonia, pancreatic cancer or Alzheimers disease.

*The COVID- 19 mortality was almost 80% higher than EU average.*

Figure 2. The majority of all deaths are caused by cardiovascular diseases and cancer



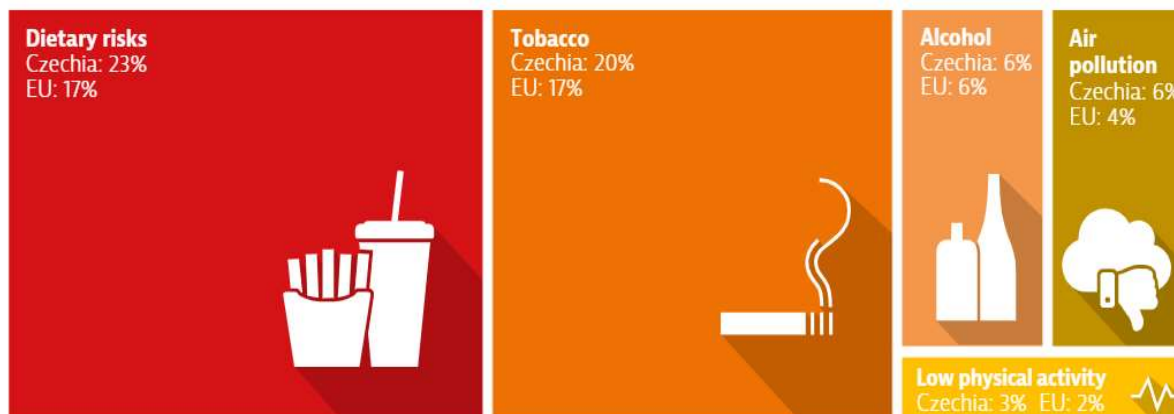
Note: The data are presented by broad ICD chapter. Dementia was added to the nervous system diseases' chapter to include it with Alzheimer's disease (the main form of dementia).  
Source: Eurostat Database (data refer to 2014).

The Czech Republic has substantially reduced mortality from acute myocardial infarction.

## RISK FACTORS



- Working conditions of people
- Environment (in which people live)
- **Dietary risk (18%)**
- Smoking
- Alcohol use
- Physical inactivity





# SVÍČKOVÁ SAUCE



# About

- Typical czech dish – usually served as a lunch
- Traditional in all regions in the Czech Republic
- Beef tenderloin with cream-vegetable sauce and dumplings
- Dumplings are breaded – usually made of yeast, old bun, milk, eggs and flour
- Decorated with a scoop of whipped cream, cranberry jam and a piece of lemon
- Preparing can lasts from 3 to 3.5 hours
- Not ideal for hot summer days
- Thickened with roux (in czech: „jíška“)



# Ingrediens

## Sauce:

- Root vegetables: parsley roots, carrots, celeriac, onions
- Spices: bay leaf, peppercorn (black pepper berries), allspice balls
- Heavy cream (*at least 30% of milk fat*)
- Butter
- Apple
- Vinegar
- Sugar

***Beef tenderloin, bacon and lard***

***Bread dumplings***

## ***Roux:***

- unsalted butter
- all-purpose flour

***For decoration:*** lemon, cranberry jam, whipped cream



# Allergens

- Milk – lactosa (cream in the sauce)
  - ➔ could be substituted by plant-based product
- Gluten (dumplings, roux)
  - ➔ could be substituted by gluten-free flour





S. ROXON MIA SACTIAE

# Preparation

## ***Step 1: Lard the beef with stripes of bacon and brown it***

- Make holes into the meat and press in stripes of bacon
- For a better shape, tie the irregular-shaped meat with a cooking string
- Salt and pepper the meat properly from all sides
- In a large heavy pot, melt lard over higher heat and sear the beef from all sides until brown. Remove the browned meat and set it aside.





## ***Step 2: Prepare the vegetables and sauté it***

- Peel the vegetables, onions and an apple and dice it
- For sauté, use the same pot which we used to prepare the meat. Reduce temperature to medium heat, add butter and any leftover bacon from larding.
- Add diced carrots, parsley roots, and celeriac. Cook until slightly golden, stirring occasionally.
- After a while, add onions and apple and cook for another 3-4 minutes
- Add sugar and vinegar
- Add 1 teaspoon of salt and mix it.



### ***Step 3: Return the browned beef to a pot***

- Return the browned beef to a pot, pour over hot water until you have the meat almost submerged.
- Add 1 teaspoon of salt and spices



**Step 4:** Bring to a boil, reduce heat to a minimum. Cover with a lid and allow it to simmer for 2,5 hours until beef softens.

**Step 5:** Remove the spices (especially all bay leaves) and  $\frac{1}{4}$  of vegetables and discard them. Take out the beef and keep it in a warm place.





## ***Step 7: Make the roux***

- In a pan, melt butter on medium heat.
- Add flour, frequently mix until lightly golden.
- Get a sieve, put roux in it, submerge into the svíčková and press roux through the sieve. Continuously mix the roux in the sauce.



## ***Step 8: Bring the pot back on a stove, let it simmer for 15-20 minutes.***

- Stir occasionally (the roux tends to sit down and stick to the bottom of the pot).
- The roux loses its floury taste after about 15 minutes of simmering.

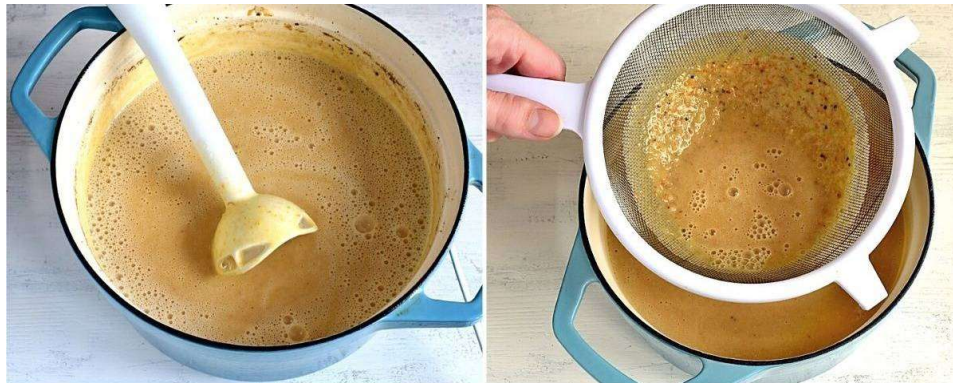




**Step 9:** Add heavy cream into sauce and stir; no more cooking!



**Step 10:** Mix everything with an immersion blender and strain the sauce in a clean pot. Season with lemon juice and salt to your liking.



**Finally, serve with bread dumplings and a slice of beef.**



THANK YOU FOR YOUR ATTENTION



Source of the recipe and pictures:

<https://www.cooklikeczechs.com/svickova-na-smetane/>