

# Sustainable tradition of Spa care



- Czech spa towns combine medicine, wellness, and prevention.
- A model where health care and lifestyle meet.
- Tradition backed by science and proven natural resources.

- Wellness is not punishment it's everyday joy.
- Often seen as gyms, diets, or "No pain, no gain."
- In spa towns: gentle, sustainable, enjoyable.
- Walking, mineral water, culture = natural routine.
- Wellness is holistic: body, mind, community.



#### Main guidelines include:

- Drinking cures with healing natural mineral waters (3 times a day)
- Sleep routine
- Walking + exercises with therapists /individual or in groups/
- Social interaction (concerts, galleries, ... or just having a chat at the lobby <sup>(2)</sup>)

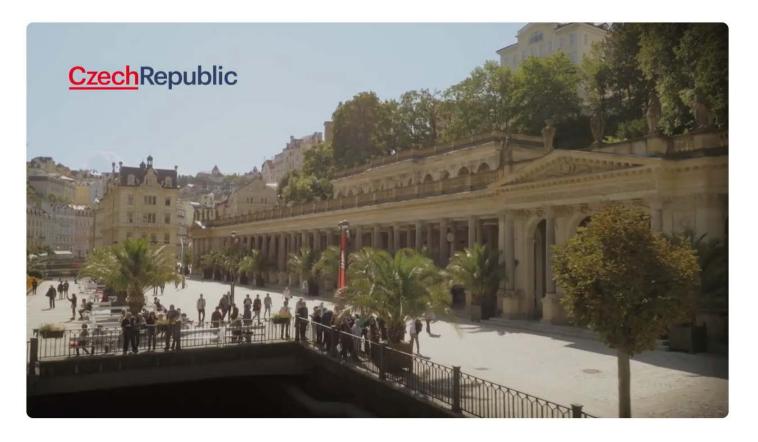
# Rehabilitation & Follow-up



### Czech spas are part of the healthcare system.

- Continuation of care after hospital treatment.
- Therapies: mineral baths, inhalation, exercise.
- Medical staff always present, following national care standards.
- Goal: strength, independence, and quality of life.

# Preventive Medicine



### Spas are a natural setting for prevention.

- Addressing global challenges: obesity, metabolic syndrome, type 2 diabetes, stress, burnout.
- Spa programs support weight balance, blood pressure, and glucose control.
- Healthy routines are adopted naturally through lifestyle and environment.
- Prevention here is practical, pleasant, and sustainable.

# Longevity & Future



### Czech spas are natural longevity hubs.

- Healthy aging supported by lifestyle and natural resources.
- Tradition combined with modern medical science.
- Longevity programs are a growing global trend.
- Czech spa towns = living laboratories for a healthier, longer life.

# Czech spas offer what the world is looking for.



#### Czech spas offer what the world is looking for.

- Medical + wellness + prevention = unique synergy.
- UNESCO heritage = credibility and recognition.
- A proven model of health, prevention, and lifestyle.
- Medical Spa not only medical, never just a spa.

## Sustainability

## Spa towns are protected for future generations.

- Spa zones are safeguarded by law in the Czech Republic.
- No heavy industry, highways, or disruptive projects allowed.
- Mineral springs protected by special conservation zones.
- Guarantees long-term sustainability of spa towns and their environment.



# Františkovy Lázně

### Three natural healing resources.

- Peat mud (peloids), natural CO<sub>2</sub> gas, and mineral springs.
- Springs: cold (8–14 °C), high CO<sub>2</sub>, moderate mineralization.
- Unique elements: sulphates (Glauber's salt), lithium, iron.
- Treatments:
   Women's health,
   cardiovascular, metabolism,
   digestion.



# Mariánské Lázně

- A spa of many springs and a climate spa.
- Over 100 mineral springs with diverse chemistry.
- CO<sub>2</sub>-rich, bicarbonates, sulphates, sodium, iron, fluoride, silicates.
- Climate therapy supports recovery of mind and body.
- **Treatments**: kidney & urinary tract, metabolism, digestion, musculoskeletal.
- Also indicated for post-oncological recovery and stress-related conditions (e.g. burnout).



# Karlovy Vary

- The hot spring city.
- Mineral springs up to 73 °C.
- Bicarbonate-sulphate-chloride-sodium waters with CO<sub>2</sub>, silicic acid, fluoride.
- Used mainly for internal diseases: digestive tract, liver, gallbladder, pancreas.
- Drinking cures help reduce insulin resistance.
- Important in prevention of metabolic syndrome and type 2 diabetes.





## **Hospitals by Law**

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**Hotels in Experience** 

### Hospitals that People Experience like Hotels

- Spa facilities are legally defined as hospitals.
- Guests often feel like staying in elegant hotels.
- Open spaces shared by patients, visitors, and residents.
- A unique harmony of healthcare, nature, architecture, and culture.

- The West Bohemian Spa Triangle consists of three spa towns:
   Karlovy Vary, Mariánské Lázně, and Františkovy Lázně.
- The region has approximately **10,000 spa beds** available for patients.
- There are about **100** medical **doctors** specialized in rehabilitation care, covering rehabilitation including internal diseases.
- The area employs around **1,500 physiotherapists** and related healthcare professionals, ensuring complete spa treatment and rehabilitation services.
- More than 50,000 patients were treated in spas at the expense of health insurance companies

1 month ≈ 4,000 USD

West Bohemian Spa Triangle in numbers

# Karlovy Vary Internal medicine & metabolism

- **Digestive tract, liver**, gallbladder, pancreas
  - functional and chronic disorders, post-surgical recovery.
- Metabolic disorders:
   insulin resistance, early type 2 diabetes,
   dyslipidemia, obesity (drinking cures + lifestyle programs).
- Post-abdominal and post-surgical rehabilitation with dietary and hydration guidance.
- Gout and hyperuricemia.

Bicarbonate–sulphate–chloride–sodium waters with CO<sub>2</sub> stimulate digestion, secretion, and metabolic balance.



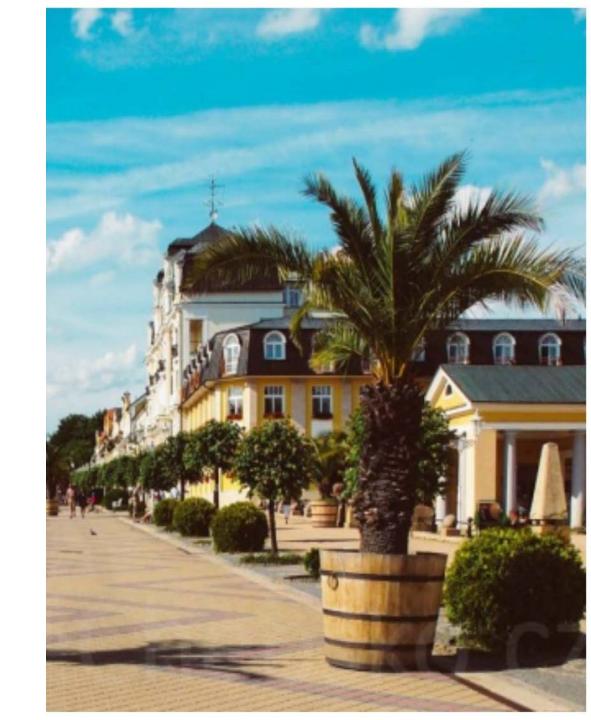


# Mariánské Lázně Diversity of springs & climate therapy

- Kidney and urinary tract diseases
   prevention of stones, chronic inflammation, functional disorders.
- Metabolic and digestive disorders (CO<sub>2</sub>-rich, bicarbonate and sulphate waters).
- Mild musculoskeletal and post-operative conditions.
- Internal diseases requiring a calm climate, including post-oncological recovery (primary).
- Stress-related and burnout conditions (secondary).

## Františkovy Lázně CO<sub>2</sub> therapy, peat mud women's health

- Women's reproductive health and post-gynecological recovery.
- Cardiovascular and peripheral vascular diseases (dry CO<sub>2</sub> baths improve microcirculation).
- Metabolic and digestive disorders (unique CO<sub>2</sub>-rich sulphate waters).
- Musculoskeletal disorders and post-traumatic rehabilitation with peat therapy.
- Combination of peat mud, natural CO<sub>2</sub> gas and natural healing mineral springs create a unique therapeutic combination for vascular, gynecological, and musculoskeletal care.



## Healing takes time – health cannot be rushed.

- Czech spas are not based on the idea of, "no pain, no gain."
- Drinking cures takes time to get the effect
- They are social and cultural centers offering care through mild, repetitive natural stimuli.
- Just as one bricklayer builds a house in 365 days;
   365 bricklayers cannot build it in one day.
- Wellness to 14 days
  - healing begins after 21 days
  - best 28 and more

## Science in Spas

#### Evidence from Mariánské Lázně & related studies

- Ensana Mariánské Lázně (evaluation report): multi-week spa rehab ↑ physical fitness, ↓ dyspnoea; improvements in oximetry/spirometry. Global Wellness Institute
- **ESPA report (EU overview):** comprehensive spa rehab in **Ensana Mariánské Lázně** shown as effective post-Covid method. <u>europeanspas.eu+1</u>
- **Summary (GWI Hot Springs Initiative):** references the *2021 Evaluation of Post-Covid Programme Effects* at Ensana Mariánské Lázně. <u>Global Wellness Institute</u>
- CZ context—acute & rehab guidance: overview from the Czech setting (rehabilitation during COVID-19).
   MDPI
- Comparative pulmonary rehab (post-Covid) international evidence: RCTs/observational studies show gains in capacity, dyspnoea, QoL (context for spa rehab). <a href="https://example.com/PMC+2BioMed Central+2">PMC+2BioMed Central+2</a>
- Regional project mention: Annual report note on Post-COVID spa treatment in Mariánské Lázně (Špišák, Marková—collaboration). Karlovarský kraj
- Optional related Czech research (mechanisms)
- Endocrine & neurosteroid shifts after 4-week spa therapy (Bičíková et al.) objective systemic effects supportive for long-COVID rehab rationale. <u>PubMed</u>

## Science in Spas

#### **Post-COVID and Rehabilitation Studies**

- Ensana Health Spa Hotels Mariánské Lázně. (2021). *Evaluation of Post-COVID Programme Effects*. Global Wellness Institute Hot Springs Initiative. Retrieved from <a href="https://globalwellnessinstitute.org">https://globalwellnessinstitute.org</a>
- European Spas Association (ESPA). (2022). *Spa Therapy & COVID-19 on the European Market*. Brussels: ESPA Research Department. <a href="https://europeanspas.eu">https://europeanspas.eu</a>
- Marková, J., & Špišák, M. (2023). Post-COVID Spa Treatment in Mariánské Lázně Regional Project Overview. Annual report summary, Karlovarský kraj.
- Palacios-Ceña, D. et al. (2022). Rehabilitation and functional recovery after COVID-19. Journal of Clinical Medicine, 11(8), 2288. https://doi.org/10.3390/jcm11082288

#### **Czech Spa Medicine Context**

- Bičíková, M., Mačová, L., Kolátorová, L., Hill, M., & Stárka, L. (2018). *Physiological changes after spa treatment a focus on endocrinology. Physiological Research, 67*(Suppl 3), S525–S530. https://espalibrary.eu/documents/383
- Bičíková, M., Kolátorová, L., Mačová, L., et al. (2018). Steroidal metabolomic biomarkers as an indicator of the effect of spatherapy and balneotherapy. Rehabilitace a fyzikální lékařství, 25(3), 99–108. https://doi.org/10.32725/reh.2018.013

#### **Supporting Literature**

- Czech Ministry of Health. (2022). Koncepce lázeňství v České republice Updated national spa concept.
- European Spas Association (2023). Long-COVID Rehabilitation through Natural Resources.



## Czech spa towns - a unique synergy.

- Natural capital protected by law: mineral waters, gases, peat mud.
- Evidence-based treatments for prevention and chronic diseases, regulated by medical standards.
- Attractive destinations combining health, wellness, and social life in harmony with nature.
- High added value for healthcare, tourism, and sustainable development.

## 36 Czech Spa Towns

Libverda Jeseník Dubí Kundratice Karlova Studánka **Teplice** Jánské Lázně Karviná Jáchymov Bělohrad Lipová Lázně Mšené **Karlovy Vary** Klimkovice Velichovky Klášterec nad Ohří Bludov Lázně Bohdaneč Františkovy Lázně Lázně Toušeň Velké Losiny Teplice nad Bečvou Lázně Kynžvart **Poděbrady** Slatinice Kostelec u Zlína Mariánské Lázně

Konstantinovy Lázně

Bechyně Ostrožská Nová Ves Luhačovice

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Třeboň Hodonín

Lednice

## Any questions?

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