

EFFICIENCY OF HALOTHERAPY ACCORDING TO CLINICAL RESEARCH DATA

Prof. Alina V. Chervinskaya M.D., Ph.D.

*CENTRAL STATE MEDICAL ACADEMY OF
ADMINISTRATION OF THE PRESIDENT
OF THE RUSSIAN FEDERATION, MOSCOW*

*INSTITUTE OF RESPIRATORY HYGIENE AND HALOTHERAPY KFT.,
BUDAPEST*

What is Halotherapy?

The word *halotherapy* comes from the Greek: *halit* for salt.

It is a *modern natural method* that mimics the natural microclimate of salt mines in the manmade Salt Rooms.

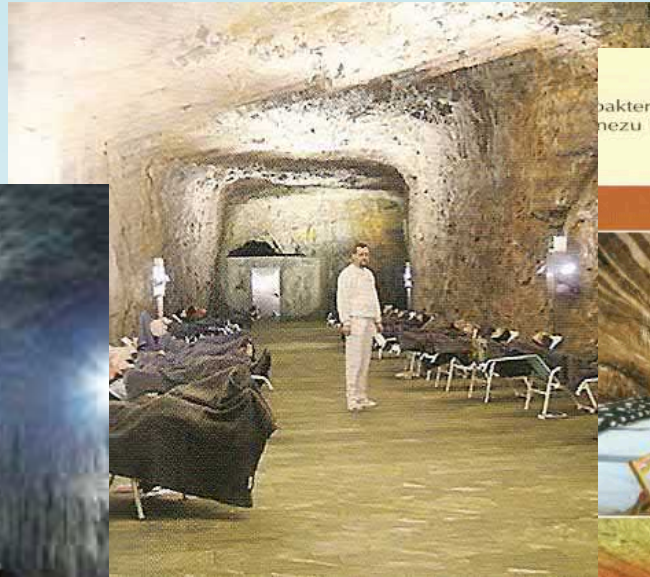


The term "Halotherapy" was introduced by scientists of the Institute of Pulmonology in Leningrad (USSR) in the end of 1980s

The Beginning of Salt Aerosol Therapy

Salt Speleotherapy is a method of treating patients by placing them in the environment of a natural rock-salt cavern for a certain period of time

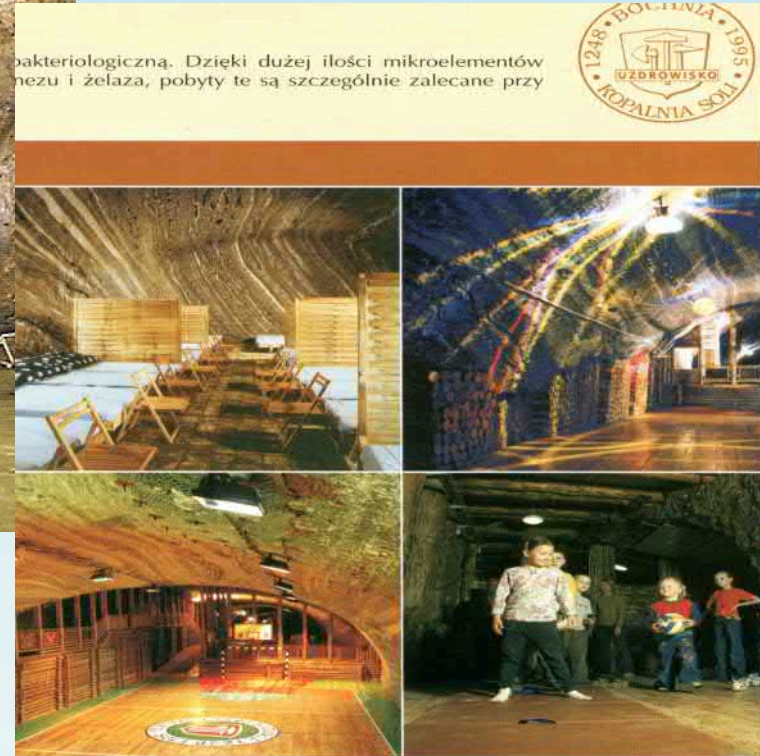
Salt aerosol plays an important role in the relief of respiratory disorders



Kurzentrum Bad
Bleiberg, Austria



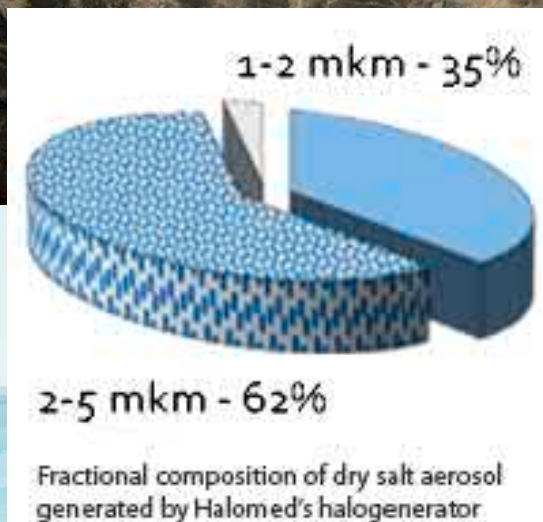
Romania



Wieliczka, Poland

The main medical factor of all salt speleo clinics

- The natural dry salt aerosol environment containing a significant amount of respirable particles of salt (1-5 microns)



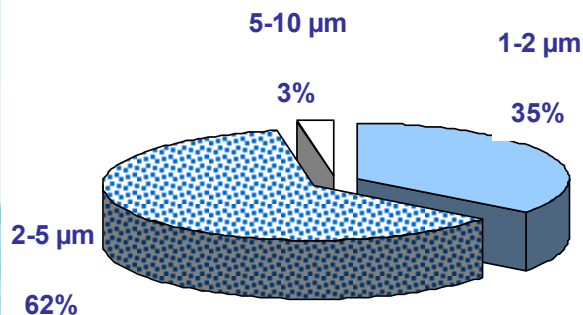
Controlled Halotherapy – dosing and monitoring of salt aerosol concentration level during procedure



Sensor of the salt aerosol concentration

Dry salt aerosol generator (Prima-02M, GDA-01) for the salt rooms (Companies “Aeromed”, “Halomed”)

Fractional composition of dry salt aerosol:
Respirable particles (1- 5 μm) – more, than 80%



- Salt environment in the salt rooms ($1-15 \text{ mg/m}^3$) is created by aerosol generator with microprocessor controller system.
- Medical environment has stable humidity (40-60%) and stable air temperature ($20-24^\circ\text{C}$). These parameters create comfortable conditions for patients and promote stable aerosol environment.

Types of Modern of Halogenerators for Salt Rooms



© Halomed UAB, Vilnius (Lithuania)

- **HaloPrima-02M**
- **since 2012**



Salt aerosol sensor



- **HaloPrima-03mini**
- **since 2017**



- **HaloCompact-01**



- **HALOSET-01**



- **HaloSmart-01**

Summarization of Clinical Data on Halotherapy Topic*

- Electronic databases were used: the Cochrane Central Register of Controlled Trials (CENTRAL), PubMed, MEDLINE, EMBASE, CINAHL, ERS-education.org, PEDRO, eLIBRARY.RU, clinmedlibrary.com, balneologia.
- The keywords used: halotherapy; halochamber; haloroom, speleotherapy, salt therapy, dry sodium chloride aerosol.



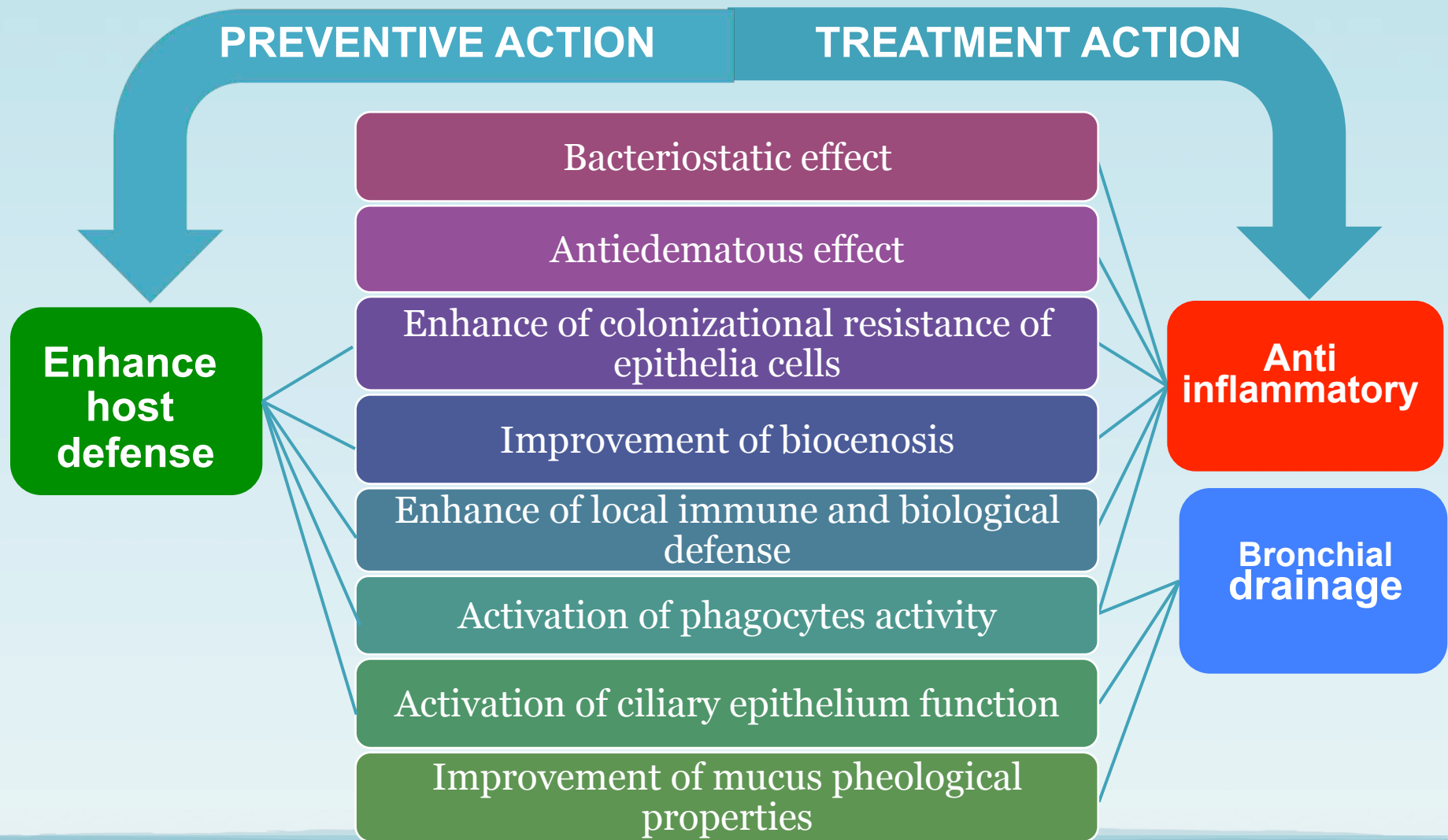
More than 400 scientific publications were found. Information about the method of Halotherapy, mechanism of its action, and efficiency are presented. Several scientific reviews were found.



17 publications were relevant Good Clinical Practice rated under Strength of Recommendation.

**Червинская А.В., Корчажкина Н.Б. Эффективность галотерапии по данным клинических исследований // Физиотерапевт. – 2019. – С.37–51. (Chervinskaya A.V., Korchazhrina N.B., Fysiothrapis, 2019, P.37–51.*

Mechanisms of dry sodium chloride aerosol action*

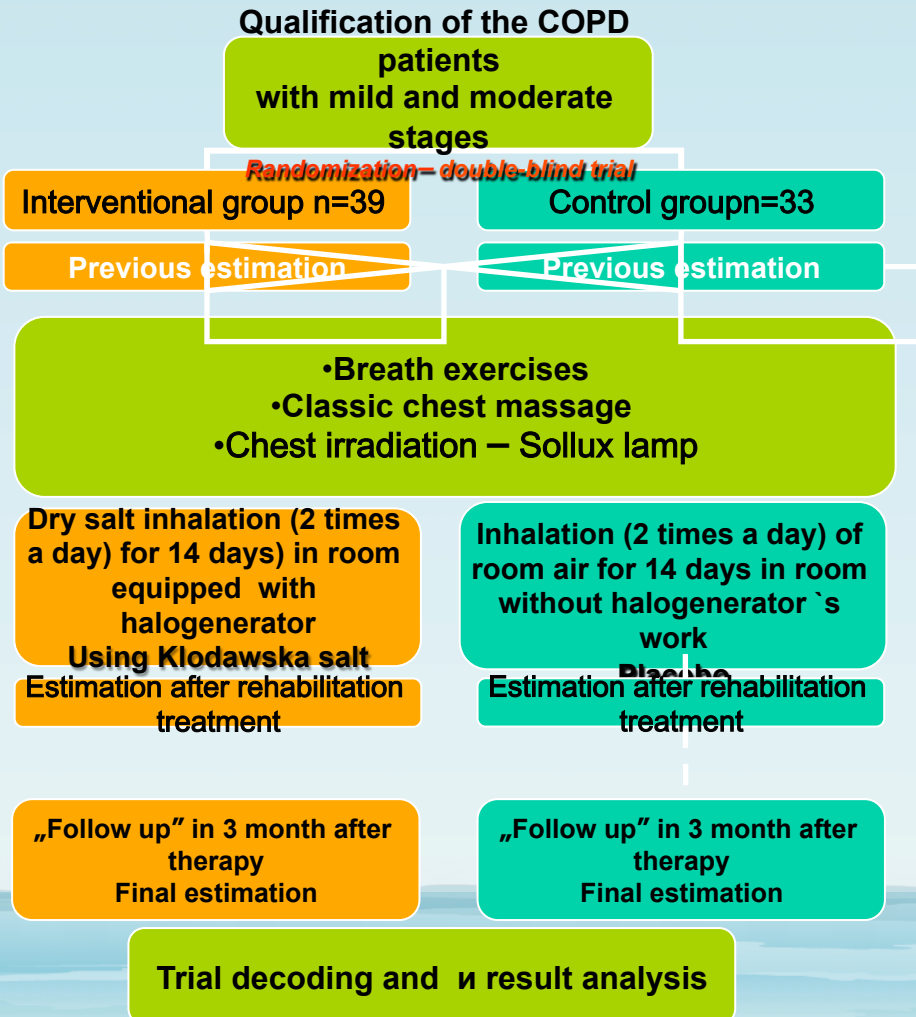


*Chervinskaya A V. Haloaerosol therapy in complex treatment and prevention of respiratory diseases: Doctor of Medicine Thesis. – St. Petersburg., 2001. – 41 p.- Rus.

Chervinskaya A.V. at al. Effect of halotherapy on resistance parameters of the respiratory tract // Ter. Arkh. – 2002. – N.3. – P. 48-52.



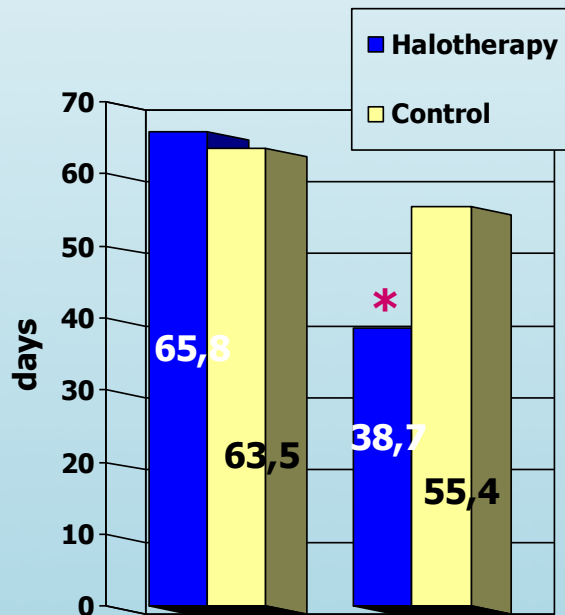
Chervinskaya A., Ponikowska I, Szafkowski R., Chojnowski J.
Dry sodium chloride aerosol in rehabilitation of patients with
COPD // The Europ. Respir. Journ.- 22nd ERS Annual
Congress, Vienna, Austria, September 1-5, 2012. – P. 643s.



- Improvements of clinical symptom scores were observed in the both groups after the course of RT ($p < 0.05$), but in 3 months positive effect was noticed only in Halotherapy group (before- 13.8 ± 5.4 , after - 9.1 ± 4.9 , in 3 months - 9.6 ± 4.3 , $p < 0.05$).
- Positive changes of physical functioning measures were observed (SF-16) in IG and CG groups after RT, but they have been kept till 3 month only in IG.
- Measures of LCQ were changed significantly after RT only in pts of Halotherapy group (35.2 ± 5.2 and 52.4 ± 6.3 , $p < 0.05$).

Halotherapy for Children's Respiratory Hygiene in Kindergartens and Schools*

Number of absent days owing to respiratory diseases before and after 12 months of Halotherapy (n=125)



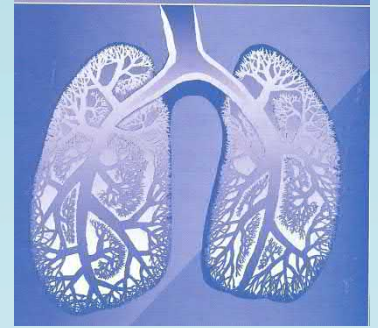
HaloSPA!®



HaloSPA sessions along with respiratory hygiene help to deal with depression, have a calming effect.

Innovative technology – Controlled Halotherapy – is being used in advanced high-quality spa culture countries - Austria, Germany, Poland, Croatia, Great Britain, Italy, Australia, United States, and others.

Target groups for Halotherapy



People with the following discomforts can expect **beneficial physical effects** by taking halotherapy sessions on a frequent basis in the salt rooms:

- Chronic pulmonary diseases (asthma, chronic obstructive pulmonary diseases, pneumonia, bronchitis, cystic fibrosis)
- Allergies with an effect on ear, nose, throat, sinuses (e.g. hay fever)
- ENT-diseases (rhinitis, sinusitis, pharyngitis, laryngitis)
- Prevention and treatment acute respiratory viral infections
- Respiratory hygiene to clean airways from harmful airborne and tobacco smoke particles
 - Quit tobacco smoking
- Dermatological disorders (acne, neurodermatitis, psoriasis, cellulite)
- Heart and vascular problems (especially in combine with lung diseases)
- Vegetative nervous system disorders

The Widespread of Halotherapy



EU

Belarus

Ukraine

Kazakhstan

Armenia

Azerbaijan

China

USA

Australia

New Zealand

Hong Kong

Vietnam

Turkey

Cyprus

Israel

Arab Emirates

end etc



www.chervinskaya.com