GENERAL EXTREME CRYOTHERAPY with the use of cryocapsule

ICEQUEEN

GRAND Cryo LLC, Russia
www.icequeen-cryo.com
GENERAL CRYOTHERAPY — is the modern medicineless noninvasive method of health improvement stimulating the functioning of hidden reserves of a human body.

GENERAL EXTREME CRYOTHERAPY is a physiotherapeutic procedure of influence on a human body by gaseous coolants for the purpose of heat removal without significant shifts in thermal control. The action is based on a body responses to overcooling of an external (receptor) skin layer down to −2 °C, causing a powerful irritant influence on CNS and a number of positive shifts in immune, endocrine, blood and other systems of a human body.
GENERAL CRYOTHERAPY PROCEDURE IS EFFECTIVE, if:

- uniform cryo-environment is provided on all the height of a body (the minimum gradient of temperature) with a stable temperature in the range of −130...−150 °C;
- cryoinfluence is extended on the maximum possible surface area of a body;
- lowest time of entering into the operating mode.

AT ONE TIME IT IS ACHIEVABLE ONLY IN THE TIGHT THERMOISOLATED CAMERA

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EFFICIENCY OF THE PROCEDURE DEPENDS ON A DESIGN OF THE WORKING EQUIPMENT, WHERE THE PROCEDURES ARE CARRIED OUT

The following types of the equipment are available:

1. **Group-closed**
   (cryocabins, cryosaunas)
2. **Group-opened**
   (cryopools)
3. **Individual-opened**
   (cryobarrels)
4. **Individual-closed**
   (cryocapsules)
STRUCTURAL DEFECTS OF CRYOCABINS

- technical inability of cryotemperature achievement;
- lack of client-centered approach;
- high cost, expensive in service;
- unsafe for breath.

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vertical difference of temperatures is 70–100 °C;
coverage of patient body surface area is not more than 70%;
possible risk of the top airways overcooling and a hypoxia due to the breathing on a border with nitric gas;
no serial production.

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vertical difference of temperatures is more than 150 °C;
cryo-influence covers just 25–30% of a skin surface, soft impulse in CNS;
temperature −50...−60 °C around a thorax can promote a chest cold;
due to the breathing on border of cold and room environments the risk of overcooling of the top airways and a hypoxia isn't excluded.

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CRYOCAPSULE

is the closed thermoisolated cabin of vertical design meant for 1 person. Being completely in the cryoair environment, the patient fixes his face in a special opening, providing tightness and safe breathing by the air of the room there the procedure is carried out.

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ADVANTAGES OF ICEQUEEN CRYOCAPSULE:

- providing a stable mode of temperature of cryotherapeutic level (−130...−160 °C);
- minimum duration of procedure (2 min);
- subtotal cryoinfluence (85−90% of an integument, along with protected limbs);
- the risk of top airways overcooling is absolutely excluded structurally;
- the risk of a hypoxia is absolutely excluded (existence of positive-pressure ventilation is a must);
- the risk of cold is excluded (temperature of procedure is below −130 °C, a cryotherapeutic size).
From 2008 to 2014 a course of the general extreme cryotherapy (10–15 procedures) was completed by more than 2500 patients aged from 18 till 70 years with diagnoses:

- Excess weight, obesity.
- Reduction of adipose tissue — 2–3 kg, reduction of body volumes — 1,5 cm.
- Metabolic syndrome.
- Cholesterin (6,5–8,0 millimole/l) — normalization, HDL level growth, decrease in LDL level. Blood sugar (6–9 millimole/l) — decrease of sugar level, reduction of a dose or full cancellation of antihyperglycemic drugs. Testosterone — normalization or the lower limit of age norm.
Psoriasis, dermatic and arthropical form.
Dermatic. In 100% of cases — reduction of disease progression, restriction of new formations on a skin up to remission. Arthropical — reduction of joint pain up to total disappearance.

Eczema and neurodermatitis.
In 100% of cases — reduction of inflammatory process up to regression. Elasticity and skin color improvement.

Face and body acne.
In 100% of cases — reduction of infiltration and area of eruption.

Lipodystrophy, lipomatisis.
In 100% of cases — cellulite transition from solid to soft form, improvement of elasticity and skin tightness, reduction of volumes by 1–1,5 cm).
Diseases of the locomotor system, including:

Artirità, arthroses, artropatiya — 35%.
Vertebral osteochondrosis — 35%.
Hernia nuclei pulposi and protrusions — 10%.
Uni- or a bilateral coxarthrosis — 10%.
Scoliosis — 10%.

In 100% of cases — reduction of joint pain up to total disappearance (in rest and during movement).
In 90% of cases — agility improvement.

Climacteric syndrome.
Normalization of sweat production and sleep, disappearance of "hot flashes" and headaches.

Syndrome of chronic fatigue.
Diseases of cardiovascular system, including:

**Vegetovascular dystonia on hypotonic or hypertensive type.**
In 100% of cases — normalization of sleep, reduction of hidrosis and skin acrocyanosis, improvement of psycho-emotional state and physical tonus, normalization of arterial tension right after procedure.

**Arterial hypertension of the 1–2A and B degree.**
Normalization of arterial tension after 3–4 procedures.

**Chronic venous insufficiency of the 1–2 degree.**
In 100% of cases you will feel the pleasant lightness in feet and decrease in puffiness.

**Chronic form of obstructive bronchitis, pneumonia, bronchial asthma.**
CONTRA INDICATIONS

- cold allergy, claustrophobia
- viral disease of the top airways
- oncological diseases
- postinfarction early period
- pregnancy, lactation
- trophic ulcers
- CVI with a skin cankering
- obliterating endarteritis
- hypertensive crisis

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GENERAL SPECIFICATIONS

Coverage of patient body surface area............90%
Cryoagent consumption...............................6 litres
Setup time...............................................3 minutes
Operating mode entering time.......................17 sec
Minimal working temperature.......................176 °C
Vertical temperature gradient.....................10–15 °C

Cryosauna overall dimensions:
Height..................................................2500 mm
Diameter...........................................942 mm
Width ..................................................1372 mm
Own weight..........................................140 kg
Maximum consumed power.........................1,5 kW

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CRYOCAPSULE ICEQUEEN

Development, production, service:
GRAND-Cryo, Russia, Moscow

Clinical site, training center:
GRAND-Clinic, Russia, Moscow
GRAND Cryo Wellness JLT, UAE

Partners:
SIEMENS, Germany
HELIYMASH, Russia
ASCO, Netherlands

Distributor, service:
GRAND Cryo S.A., Switzerland
GRAND Cryo Trading JLT, Dubai, UAE