ONE WORLD TO CHAIN TOGETHER



# WEYERGANS high care® cosmetics More than Beauty!

Oxygen ion therapy: the innovative plasma and color therapy for anti aging and revitalization

Weyergans High Care AG, Germany

more vitality and well-being





Let's talk about aging...



Let's talk about aging...





Degeneration starts at 25 years.





Degeneration starts at 25 years.

From then on, evolution is no longer interested in us...





Degeneration starts at 25 years.

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.



Degeneration starts at 25 years.

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.

We get the energy from:





Degeneration starts at 25 years.

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.

We get the energy from:









Proteins





- Proteins
- ▶ Fat





- Proteins
- Fat
- Carbonhydrates





- Proteins
- Fat
- Carbonhydrates
- Vitamins





- Proteins
- Fat
- Carbonhydrates
- Vitamins
- Minerals





- Proteins
- Fat
- Carbonhydrates
- Vitamins
- Minerals
- ▶ Trace elements





- Proteins
- ▶ Fat
- Carbonhydrates
- Vitamins
- Minerals
- ▶ Trace elements



We have enough of that. We can supplement what we lack.



Degeneration starts at 25 years

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.

We get the energy from:





Degeneration starts at 25 years

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.

We get the energy from:

- Nutrients (solid nutrients)
- Liquid (Water)









On average we need 30 ml of liquid per kg / body weight / per day.





On average we need 30 ml of liquid per kg / body weight / per day.

We should keep this amount.

That is enough for a healthy cell metabolism.





On average we need 30 ml of liquid per kg / body weight / per day.

We should keep this amount.

That is enough for a healthy cell metabolism.





Degeneration starts at 25 years

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

metabolic processes.

We get the energy from:

- Nutrients (solid nutrients)
- Liquid (Water)





Degeneration starts at 25 years

From then on, evolution is no longer interested in us...

From of 25 years, we need more energy to maintain the basal

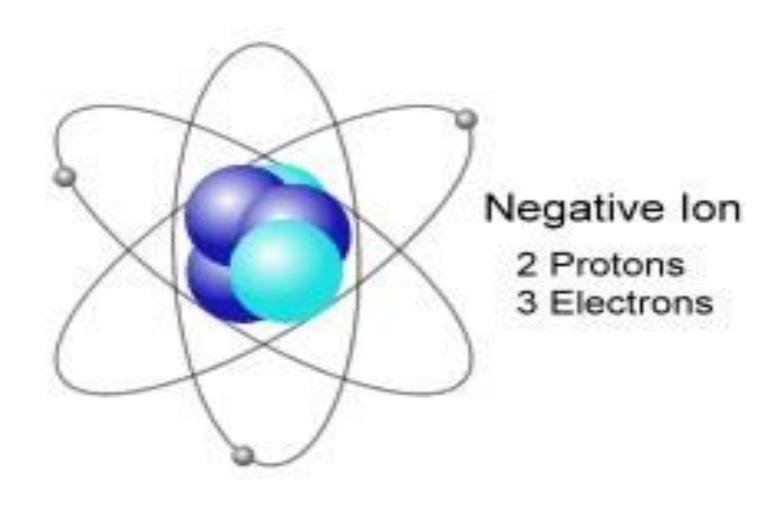
metabolic processes.

We get the energy from:

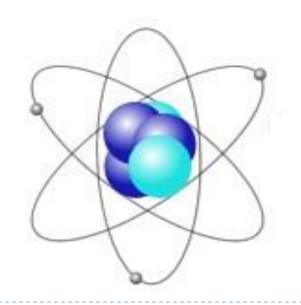
- Nutrients (solid nutrients)
- Liquid (Water)
- Oxygen





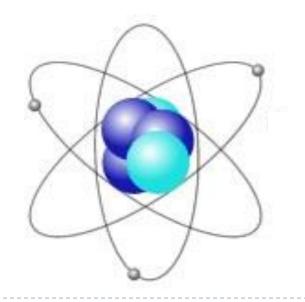


▶ The Air we breathe contains 21 % Oxygen (O2).



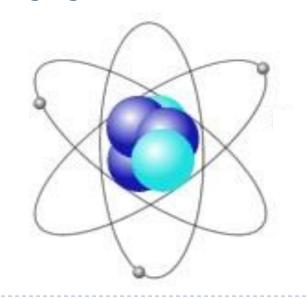


- ▶ The Air we breathe contains 21 % Oxygen (O₂).
- ▶ Of these 21%, however, our lungs only give 25% to the blood for the metabolism



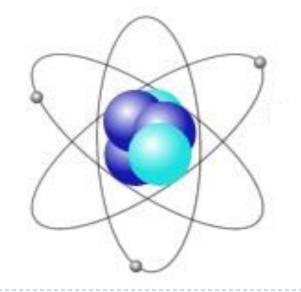


- ▶ The Air we breathe contains 21 % Oxygen (O₂).
- ▶ Of these 21%, however, our lungs only give 25% to the blood for the metabolism
- ▶ This amount is not sufficient with increasing age.





- ▶ The Air we breathe contains 21 % Oxygen (O₂).
- ▶ Of these 21%, however, our lungs only give 25% to the blood for the metabolism
- ▶ This amount is not sufficient with increasing age.
- We cannot compensate for this.





That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

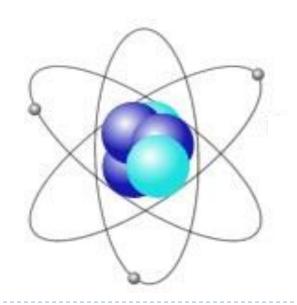




## THE PHYSIOLOGY OF OXYGEN $(O_2)$

That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

Place 1: The heart always comes first

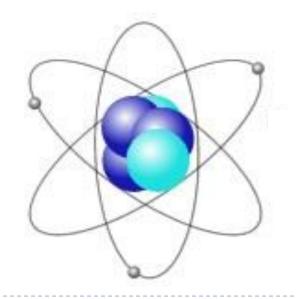




That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

Place 1: The heart always comes first

Place 2: the largest organs (spleen, liver, kidneys)



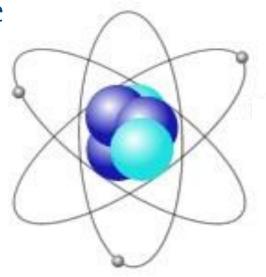


That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

Place 1: The heart always comes first

Place 2: the largest organs (spleen, liver, kidneys)

Place 3: connective tissue and bone structure





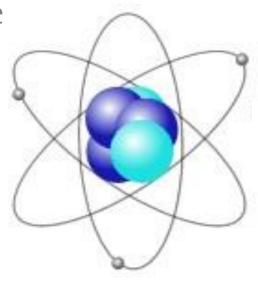
That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

Place 1: The heart always comes first

Place 2: the largest organs (spleen, liver, kidneys)

Place 3: connective tissue and bone structure

Place 4: the brain





That is why the organism makes a priority list of how it uses the oxygen it receives for metabolism.

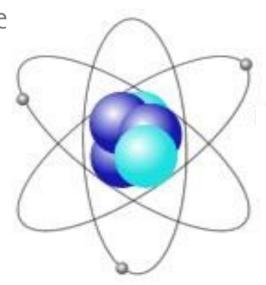
Place 1: The heart always comes first

Place 2: the largest organs (spleen, liver, kidneys)

Place 3: connective tissue and bone structure

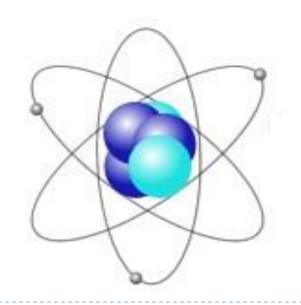
Place 4: the brain

Place 5: the largest organ - our skin





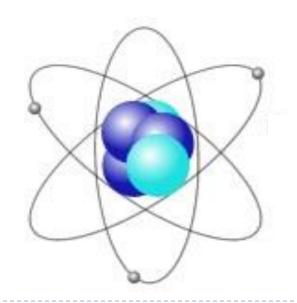
The main cause of aging and skin aging is lack of oxygen





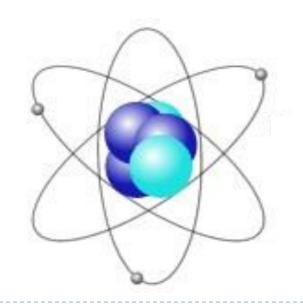
The main cause of aging and skin aging is lack of oxygen

But it is not only the amount of oxygen molecules that is important, but also their energetic quality of the oxygen





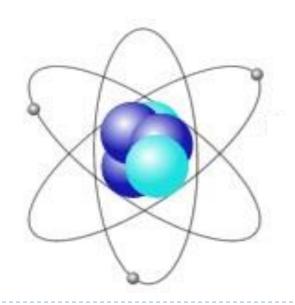
What is the "Energetic Quality" of oxygen?





What is the "Energetic Quality" of oxygen?

Every oxygen molecule is surrounded by electrical particles (ions)

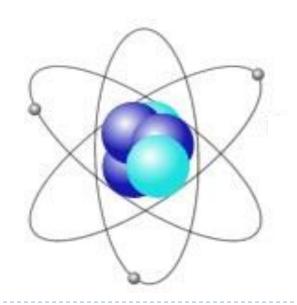




What is the "Energetic Quality" of oxygen?

Every oxygen molecule is surrounded by electrical particles (ions)

There are positive and negative ions / minus lons (+ and -).



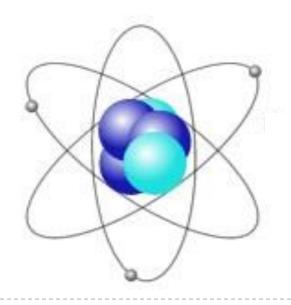


What is the "Energetic Quality" of oxygen?

Every oxygen molecule is surrounded by electrical particles (ions)

There are positive and negative ions / minus lons (+ and -).

As residents of the planet Terra, we are already electrically positive.





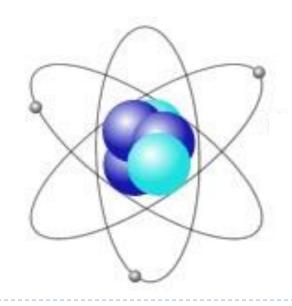
What is the "Energetic Quality" of oxygen?

Every oxygen molecule is surrounded by electrical particles (ions)

There are positive and negative ions / minus lons (+ and -).

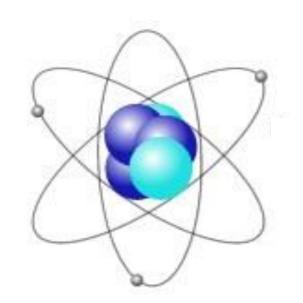
As residents of the planet Terra, we are already electrically positive.

We need the minus ions of oxygen as electrical energy for our cell metabolism





Quantum physics teaches us:





Quantum physics teaches us:

The human being is an electrical being.

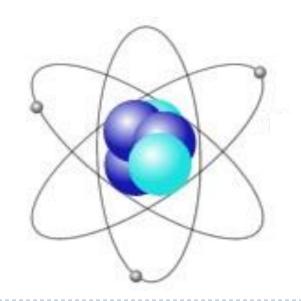




Quantum physics teaches us:

The human being is an electrical being.

All metabolic processes are based on the exchange of positive and negative charges.



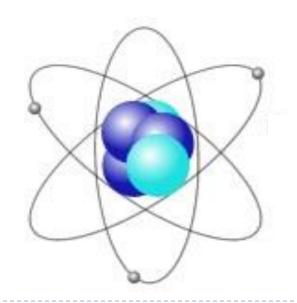


Quantum physics teaches us:

The human being is an electrical being.

All metabolic processes are based on the exchange of positive and negative charges.

We are already electrically positive.





Quantum physics teaches us:

The human being is an electrical being.

All metabolic processes are based on the exchange of positive and negative charges.

We are already electrically positive.

We have to breathe to get the electrical minus (minus ions) from

the oxygen.



Quantum physics teaches us:

The human being is an electrical being.

All metabolic processes are based on the exchange of positive and negative charges.

We are already electrically positive.

We have to breathe to get the electrical minus (minus ions) from

the oxygen.

Against this background the oxygen molecule is a Carrier molecule.



Quantum physics teaches us:

The human being is an electrical being.

All metabolic processes are based on the exchange of positive and negative charges.

We are already electrically positive.

We have to breathe to get the electrical minus (minus ions) from

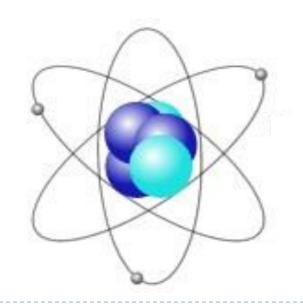
the oxygen.

Against this background the oxygen molecule is a Carrier molecule.

It does not only depend on the sufficient amount of oxygen that we breathe in, but also on the (electrical) quality of the oxygen



1 cm<sup>3</sup> of breathing air contains 21% oxygen should transport at least 2,000 minus ions.





1 cm<sup>3</sup> of breathing air contains 21% oxygen should transport at least 2,000 minus ions.

1 cm<sup>3</sup> is as much as a game die.

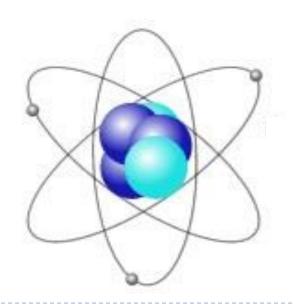




1 cm<sup>3</sup> of breathing air contains 21% oxygen should transport at least 2,000 minus ions.

1 cm<sup>3</sup> is as much as a game dice.



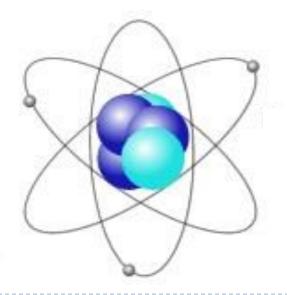




▶ The proportion of negative and positive ions per cm³ breathing air depends on the environment





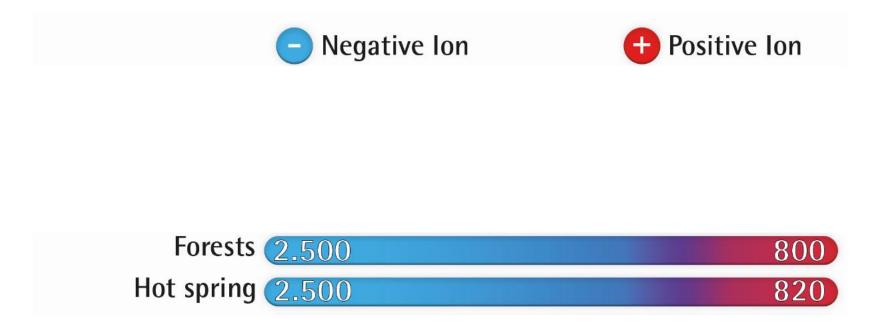




50500











```
Residental area 1.200 1.180

Forests 2.500 800

Hot spring 2.500 820
```





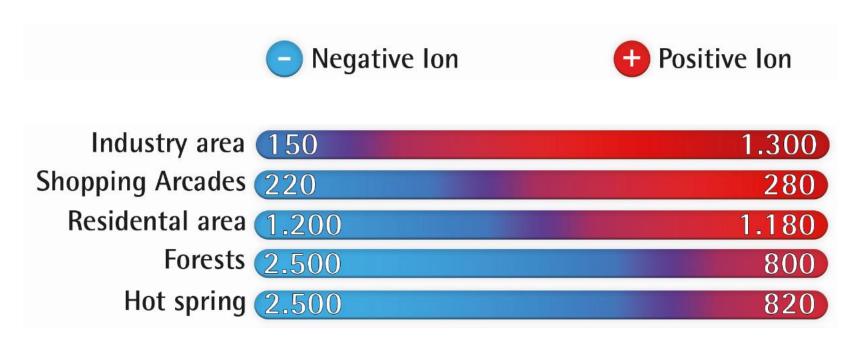
```
      Shopping Arcades
      220
      280

      Residental area
      1.200
      1.180

      Forests
      2.500
      800

      Hot spring
      2.500
      820
```







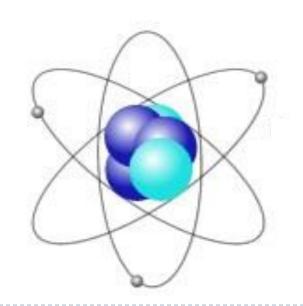
Negative Ion	Positive Ion
Office 70	1.400
Industry area (150	1.300
Shopping Arcades 220	280
Residental area (1.200	1.180
Forests 2.500	800
Hot spring 2.500	820



Negat	ive Ion • Positive Ion
Office 70	1.400
Industry area (150	1.300
Shopping Arcades 220	280
Residental area 1.200	1.180
Forests 2.500	800
Hot spring 2.500	820
Near Waterfall 5.000	300



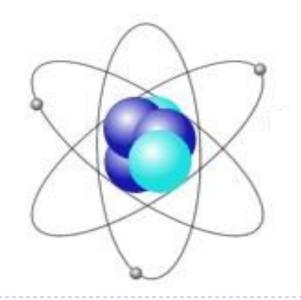
Desirable:





#### Desirable:

a process that increases the proportion of minus ions (negative ions) in the oxygen molecule.

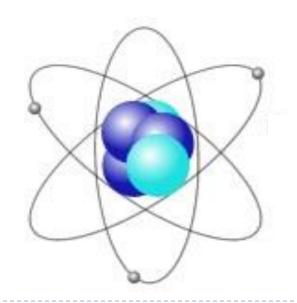




Desirable:

a process that increases the proportion of minus ions (negative ions) in the oxygen molecule.

▶ This procedure is now existing





# THE SOLUTION OF OXYGEN (O<sub>2</sub>)

#### **DERMIONOLOGY®**





From  $O_2$  to  $O_2^{(-)}$  (Plasma)



From  $O_2$  to  $O_2^{(-)}$  (Plasma)

▶ The Dermio Care device increases the number of negative ions in oxygen to over 5,000,000 per cm³ of breath.



From  $O_2$  to  $O_2^{(-)}$  (Plasma)

- ▶ The Dermio Care device increases the number of negative ions in oxygen to over 5,000,000 per cm³ of breath.
- ▶ This turns the oxygen into plasma (similar to "electricity").



From  $O_2$  to  $O_2^{(-)}$  (Plasma)

- ▶ The Dermio Care device increases the number of negative ions in oxygen to over 5,000,000 per cm³ of breath.
- ▶ This turns the oxygen into plasma (similar to "electricity").
- Plasma is surface-active and penetrates /permeates matter (such as electricity, fire or heat)







What does it do?

▶ Delivers O<sub>2</sub> (-) (Plasma)





- Delivers O<sub>2</sub> (-) (Plasma)
- Increases the metabolism



- Delivers O<sub>2</sub> (-) (Plasma)
- Increases the metabolism
  - ▶ in the skin



- Delivers O<sub>2</sub> (-) (Plasma)
- Increases the metabolism
  - in the skin
  - in the entire body





- Delivers O<sub>2</sub> (-) (Plasma)
- Increases the metabolism
  - in the skin
  - in the entire body
  - especially in the brain





▶ The proportion of negative and positive ions per cm³ breathing air depends on the environment

Negative Ion	Positive Ion
Office 70	1.400
Industry area (150)	1.300
Shopping Arcades 220	280
Residental area 1.200	1.180
Forests 2.500	800
Hot spring 2.500	820
Near Waterfall 5.000	300
Dermionologie® 5 Mio	250



Some bio physiological background.

Good to know...







Positive and negative ions have different effects on humans and their organism





- Positive and negative ions have different effects on humans and their organism
- ▶ The benefits of negative ions have been proven through countless research and scientific studies.





- Positive and negative ions have different effects on humans and their organism
- ▶ The benefits of negative ions have been proven through countless research and scientific studies.

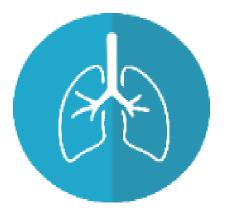
Already in 1910, Albert Einstein said that the healing effects of Davos mountain air were due to the air's electricity.



- Positive and negative ions have different effects on humans and their organism
- ▶ The benefits of negative ions have been proven through countless research and scientific studies.
- Already in 1910, Albert Einstein said that the healing effects of Davos mountain air were due to the air's electricity.
- ► A study presented in the Journal of Applied Microbiology shows that negative ions have no unwanted side effects or contraindications.



**▶** Effects on the respiratory system:





#### Effects on the respiratory system:

Lungs and mucous membranes react sensitively to the ions. The negative ions promote the formation and excretion of mucus, in which impurities in the air (dust, smoke, pollution, microorganisms) are bound.

Indicated for allergies, asthma, bronchitis, sinusitis, dryness of the oral mucosa. Best in times of Corona Virus.





▶ Effect on skin and connective tissue:



#### Effect on skin and connective tissue:

Negative ions are also absorbed through the skin. They improve the epidermis and subcutaneous tissue to provide oxygen and affect skin conditions. They improve skin conditions like acne, psoriasis, hives, burns. They neutralize acids in the interstitium and thus promote collagen synthesis.





Nervous System Impact:



#### Nervous System Impact:

Negative ions increase serotonin levels. A lack of serotonin can cause hyperactivity, stress, fatigue, insomnia, anxiety. They reduce migraines and headaches due to their analgetic effect and promote relaxation and improve concentration and memory.





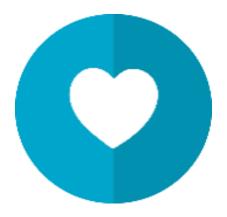
#### Impact on sexuality:

A negative ion environment stimulates sexual activity and positively influences the fertility of both men and women



Circulatory Effects:

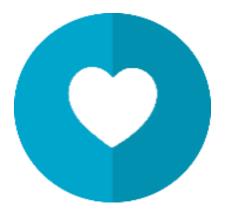
.





#### Circulatory Effects:

Negative ions improve blood circulation and promote blood purification, regulate blood pressure, and prevent coronary heart disease, myocardial infarction, and angina.





▶ Above that negative ions also regulate





- ▶ Above that negative ions also regulate
  - blood pressure





- ▶ Above that negative ions also regulate
  - blood pressure
  - increase vision





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin excretion
  - boost the immune system and promote cell permeability





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin excretion
  - boost the immune system and promote cell permeability
  - reduce fatigue and muscle aches





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin excretion
  - boost the immune system and promote cell permeability
  - reduce fatigue and muscle aches
  - help in metabolic diseases





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin excretion
  - boost the immune system and promote cell permeability
  - reduce fatigue and muscle aches
  - help in metabolic diseases
  - improve physical and mental performance





- Above that negative ions also regulate
  - blood pressure
  - increase vision
  - regulate pH
  - improve digestive function
  - reduce lipid and cholesterol and promote toxin excretion
  - boost the immune system and promote cell permeability
  - reduce fatigue and muscle aches
  - help in metabolic diseases
  - improve physical and mental performance
  - ensure general well-being



Positive and negative ions have different effects on humans and their organism:

Affected Target	Blood	Heart	Blood Pressure	Respiratory System
When rich in negatively lons	Weak Alkaline pH balance	Works efficiently	Normal	Smooth
When rich in positive lons	Acidic pH Balance	Has to work hard	High	Difficult



Positive and negative ions have different effects on humans and their organism:

Affected Target	Blood Vessels	Bones	Vitality
When rich in negatively lons	Expanded	Healthy	Vigorous
When rich in positive lons	Constricted	Weak	Fatigued



# DERMIONOLGY / IONO ACTIVE MASK



Above that: Negative Ions kill bacteries and viruses



Above that: Negative Ions kill bacteries and viruses





Review

### Negative Air Ions and Their Effects on Human Health and Air Quality Improvement

Shu-Ye Jiang, Ali Ma and Srinivasan Ramachandran \*

Temasek Life Sciences Laboratory, 1 Research Link, National University of Singapore, Singapore 117604, Singapore; shuye@tll.org.sg (S.-Y.J.); zhigang@tll.org.sg (A.M.)

\* Correspondence: sri@tll.org.sg; Tel.: +65-6872-7480

Received: 15 August 2018; Accepted: 25 September 2018; Published: 28 September 2018



Abstract: Negative air ions (NAIs) have been discovered for more than 100 years and are widely used for air cleaning. Here, we have carried out a comprehensive reviewing on the effects of NAIs on humans/animals, and microorganisms, and plant development. The presence of NAIs is credited for increasing psychological health, productivity, and overall well-being but without consistent or reliable evidence in therapeutic effects and with controversy in anti-microorganisms. Reports also showed that NAIs could help people in relieving symptoms of allergies to dust, mold spores, and other

Above that: Negative Ions kill bacteries and viruses







## ⊗ It's been proven that air ionization:

- Reduces bacteria and germs on the surface [1-3, 13-16]. Destroys viruses and bacteria [1-12]. Reduces particulate matter in the air [17,18].

  - Improves mood and well-being [19].

...and many other advantages!



or NAIs on ace of NAIs is credited for ar-being but without consistent or reliable goversy in anti-microorganisms. Reports also showed in relieving symptoms of allergies to dust, mold spores, and other

Above that: Negative Ions kill bacteries and viruses

## SCIENTIFIC REPORTS



# Ionizing air affects influenza virus infectivity and prevents airbornetransmission

Received: 27 November 2014

Accepted: 13 May 2015

Published: 23 June 2015

Marie Hagbom<sup>1,\*</sup>, Johan Nordgren<sup>1,\*</sup>, Rolf Nybom<sup>2</sup>, Kjell-Olof Hedlund<sup>3</sup>, Hans Wigzell<sup>2</sup> & Lennart Svensson<sup>2</sup>

By the use of a modified ionizer device we describe effective prevention of airborne transmitted influenza A (strain Panama 99) virus infection between animals and inactivation of virus (>97%). Active ionizer prevented 100% (4/4) of guinea pigs from infection. Moreover, the device effectively

Basic effects of the IONO-ACTIVE Mask:

- More vitality
- More Wellbeing
- ▶ Health Protection



#### **DERMIONOLGY**

Dermionology fits as a unique feature in all institute concepts as a single treatment or cure



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.
- ▶ The outcome:



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.
- ▶ The outcome:
  - Better treatment results due to the additional metabolic activation



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.
- ▶ The outcome:
  - Better treatment results due to the additional metabolic activation
  - Better sales arguments for the institute / unique position



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.
- ▶ The outcome:
  - Better treatment results due to the additional metabolic activation
  - Better sales arguments for the institute / unique position
  - Additional treatment without additional treatment time



- Dermionology fits as a unique feature in all institute concepts as a single treatment or cure
- Dermio fits all facials with or without a complementary mask (anti aging, problem skin, wellness)
- Dermio fits all body treatments like Vacu, Lymphatic Drainage, RF, Laser, Cryo, Body Wrapps etc.
- ▶ The outcome:
  - Better treatment results due to the additional metabolic activation
  - Better sales arguments for the institute / unique position
  - Additional treatment without additional treatment time
  - More turnover without personnel retention



#### THE DERMIONOLGY "PLUS" METHOD



#### THE DERMIONOLGY "PLUS" METHOD

Disierable

... to focus the energy of the dermionolgy on specific metobolic processes







#### THE DERMIONOLGY "PLUS" METHOD

► Enhance the Dermionology with Photo Therapy









▶ Different colors of light effect specific metobolic processes.





► Native cultures discovered that the color of plants often determined their healing qualities.



- Native cultures discovered that the color of plants often determined their healing qualities.
- ▶ Research with plants also indicates how colored light affects plant health.



- Native cultures discovered that the color of plants often determined their healing qualities.
- Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy



- Native cultures discovered that the color of plants often determined their healing qualities.
- Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy





- Native cultures discovered that the color of plants often determined their healing qualities.
- ▶ Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy.
- ▶ Color therapy for health is gaining ground today as a result of the advent of Light Emitting Diodes (LEDs). Medical research sponsored by NASA, using both Red and Near Infrared (NIR) LEDs, expanded the awareness of, and use of, color therapy.



- Native cultures discovered that the color of plants often determined their healing qualities.
- ▶ Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy.
- ► Color therapy for health is gaining ground today as a result of the advent of Light Emitting Diodes (LEDs). Medical research sponsored by NASA, using both Red and Near Infrared (NIR) LEDs, expanded the awareness of, and use of, color therapy.





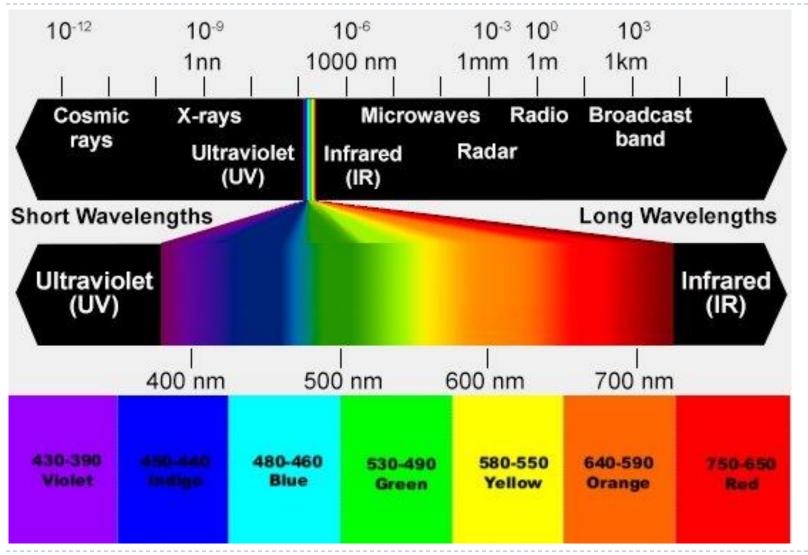
- Native cultures discovered that the color of plants often determined their healing qualities.
- Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy.
- Color therapy for health is gaining ground today as a result of the advent of Light Emitting Diodes (LEDs). Medical research sponsored by NASA, using both Red and Near Infrared (NIR) LEDs, expanded the awareness of, and use of, color therapy.
- Color therapy is scientifically approved



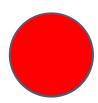
- Native cultures discovered that the color of plants often determined their healing qualities.
- Research with plants also indicates how colored light affects plant health.
- ▶ Dr. Niels Ryberg Finsen reported the successful use of red light to prevent scar formation from smallpox and was honored with a Nobel Prize in 1903 for his pioneering work with light therapy.
- Color therapy for health is gaining ground today as a result of the advent of Light Emitting Diodes (LEDs). Medical research sponsored by NASA, using both Red and Near Infrared (NIR) LEDs, expanded the awareness of, and use of, color therapy. APPROVED
- Color therapy is scientifically approved

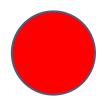


#### THAT'S LIGHT



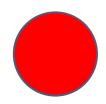






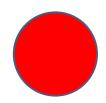
Produces cadmium, krypton, neon. Ideal for blood disorders and Wound healing





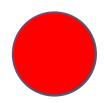
- Produces cadmium, krypton, neon. Ideal for blood disorders and Wound healing
- Stimulates ATP in the cells and increases cellular reproduction





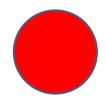
- Produces cadmium, krypton, neon. Ideal for blood disorders and Wound healing
- Stimulates ATP in the cells and increases cellular reproduction
- Skin repair (anti aging)





- Produces cadmium, krypton, neon. Ideal for blood disorders and Wound healing
- Stimulates ATP in the cells and increases cellular reproduction
- Skin repair (anti aging)
- Prevents and reduces scar tissue





- Produces cadmium, krypton, neon. Ideal for blood disorders and Wound healing
- Stimulates ATP in the cells and increases cellular reproduction
- Skin repair (anti aging)
- Prevents and reduces scar tissue
- Boosting collagen formation





doi: 10.1089/pho.2013.3616

PMCID: PMC3926176 PMID: 24286286

\_u for

#### A Controlled Trial to Determine the Efficacy of Red and Near-Infrared Light Treatment in Patient Satisfaction, Reduction of Fine Lines, Wrinkles, Skin Roughness, and Intradermal Collagen Density Increase

Alexander Wunsch<sup>III</sup> and Karsten Matuschka<sup>2</sup>

Author information ► Copyright and License information ► Disclaimer

This article has been cited by other articles in PMC.

Abstract Go to: ✓

Objective: The purpose of this study was to investigate the safety and efficacy of two novel light sources for large area and full body application, providing polychromatic, non-thermal photobiomodulation (PBM) for improving skin feeling and appearance. Background data: For non-thermal photorejuvenation, laser and LED light sources have been demonstrated to be safe and effective. However, lasers and LEDs may offer some disadvantages because of dot-shaped (punctiform) emission characteristics and their narrow spectral bandwidths. Because the action spectra for tissue regeneration and repair consist of more wavelength, we investigated if it is favorable to apply a polychromatic spectrum coverispectral region for skin rejuvenation and repair. Materials and methods: A total c participated in this prospective, randomized, and controlled study. Of these volunte randomly assigned into four treatment groups were treated twice a week with either nm polychromatic light (normalized to ~9 J/cm<sup>2</sup> in the range of 611-650 nm) and we controls (n=23). Irradiances and treatment durations varied in all treatment groups. Th baseline and after 30 sessions included blinded evaluations of clinical photography, ulti collagen density measurements, computerized digital profilometry, and an assessment of satisfaction. Results: The treated subjects experienced significantly improved skin comple feeling, profilometrically assessed skin roughness, and ultrasonographically measured colla The blinded clinical evaluation of photographs confirmed significant improvement in the im groups compared with the control. Conclusions: Broadband polychromatic PBM showed no over the red-light-only spectrum. However, both novel light sources that have not been previous PBM have demonstrated efficacy and safety for skin rejuvenation and intradermal collagen increase when compared with controls.



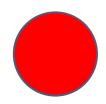






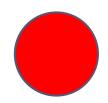


# RED / NEAR INFRARED



Best for Anti Aging (skin & decolletée firming)

# RED / NEAR INFRARED

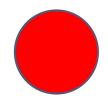


Best for Anti Aging (skin & decolletée firming)

Best to support any body treatment (2 in 1)



# RED / NEAR INFRARED



- Best for Anti Aging (skin & decolletée firming)
- Best to support any body treatment (2 in 1)

# Feel the difference







Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.



- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification





- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification
- Anti Bacterial





- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification
- Anti Bacterial
- Relieves Stress (Calm, relaxing)



#### **GRFFN**



- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification
- Anti Bacterial
- Relieves Stress (Calm, relaxing)
- Strengthens the immune system





- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification
- Anti Bacterial
- Relieves Stress (Calm, relaxing)
- Strengthens the immune system
- Builds muscles and bones





- Affects heart problems, high blood pressure, bronchial catarrh, asthma, fatigue, sleep disorder, bone problems, ulcers, tumors, eye diseases.
- Detoxification
- Anti Bacterial
- Relieves Stress (Calm, relaxing)
- Strengthens the immune system
- Builds muscles and bones
- An aphrodisiac and sexual tonic







▶ Best for menopausal women





▶ Best for menopausal women

▶ Best in times of Corona





- Best for menopausal women
- Best in times of Corona

# Feel the difference





▶ Has a calming and cooling effect



- ▶ Has a calming and cooling effect
- Antiseptic and antibacterial



- Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.



- Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.
- Anti-inflamatory



- Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.
- Anti-inflamatory
- Calms nervs



- ▶ Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.
- Anti-inflamatory
- Calms nervs
- Strengthens the immune system



- Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.
- Anti-inflamatory
- Calms nervs
- Strengthens the immune system
- ▶ In cases of acne and psoriasis



- Has a calming and cooling effect
- Antiseptic and antibacterial
- Astringent effect. Dries up secretions. For wet skin diseases, sore throat, colic, burns, hemorrhoids.
- Anti-inflamatory
- Calms nervs
- Strengthens the immune system
- ▶ In cases of acne and psoriasis
- Dermatologically tested and aproved









▶ Best for problematic skin condition





▶ Best for problematic skin condition

More Competence in Medical Beauty Treatments





- Best for problematic skin condition
- More Competence in Medical Beauty Treatments

# Feel the difference





▶ Photo therapy activates specific metabolic processes



- Photo therapy activates specific metabolic processes
- Dermionology delivers energy for the metabolism.



- Photo therapy activates specific metabolic processes
- Dermionology delivers energy for the metabolism.
- ▶ With the help of Dermionology the results of Photo therapy is shifted in new dimensions.



- Photo therapy activates specific metabolic processes
- Dermionology delivers energy for the metabolism.
- ▶ With the help of Dermionology the results of Photo therapy is shifted in new dimensions.
- With the help of Photo therapy the energy of Dermionolgy is lead precisely to enhance specific metabolic processes



- Photo therapy activates specific metabolic processes
- Dermionology delivers energy for the metabolism.
- ▶ With the help of Dermionology the results of Photo therapy is shifted in new dimensions.
- ▶ With the help of Photo therapy the energy of Dermionolgy is lead precisely to enhance specific metabolic processes
- ▶ Photo Therapy + Dermionolgy is more than 1 + 1





► Easy to use (no special training required)



- ▶ Easy to use (no special training required)
- ▶ No staff retention / no HR costs



- Easy to use (no special training required)
- ▶ No staff retention / no HR costs
- Profitable as an additional offer or as stand alone



- Easy to use (no special training required)
- ▶ No staff retention / no HR costs
- Profitable as an additional offer or as stand alone
- Fits for all Beauty salons and Spas for detoxification and medical wellness



- Easy to use (no special training required)
- ▶ No staff retention / no HR costs
- Profitable as an additional offer or as stand alone
- ▶ Fits for all Beauty salons and Spas for detoxification and medical wellness
- Technology









# WEYERGANS

high care® cosmetics,

More than Beauty!



ONE WORLD TO CHAIN TOGETHER