

medisun® XENIA UVA1



The New Generation

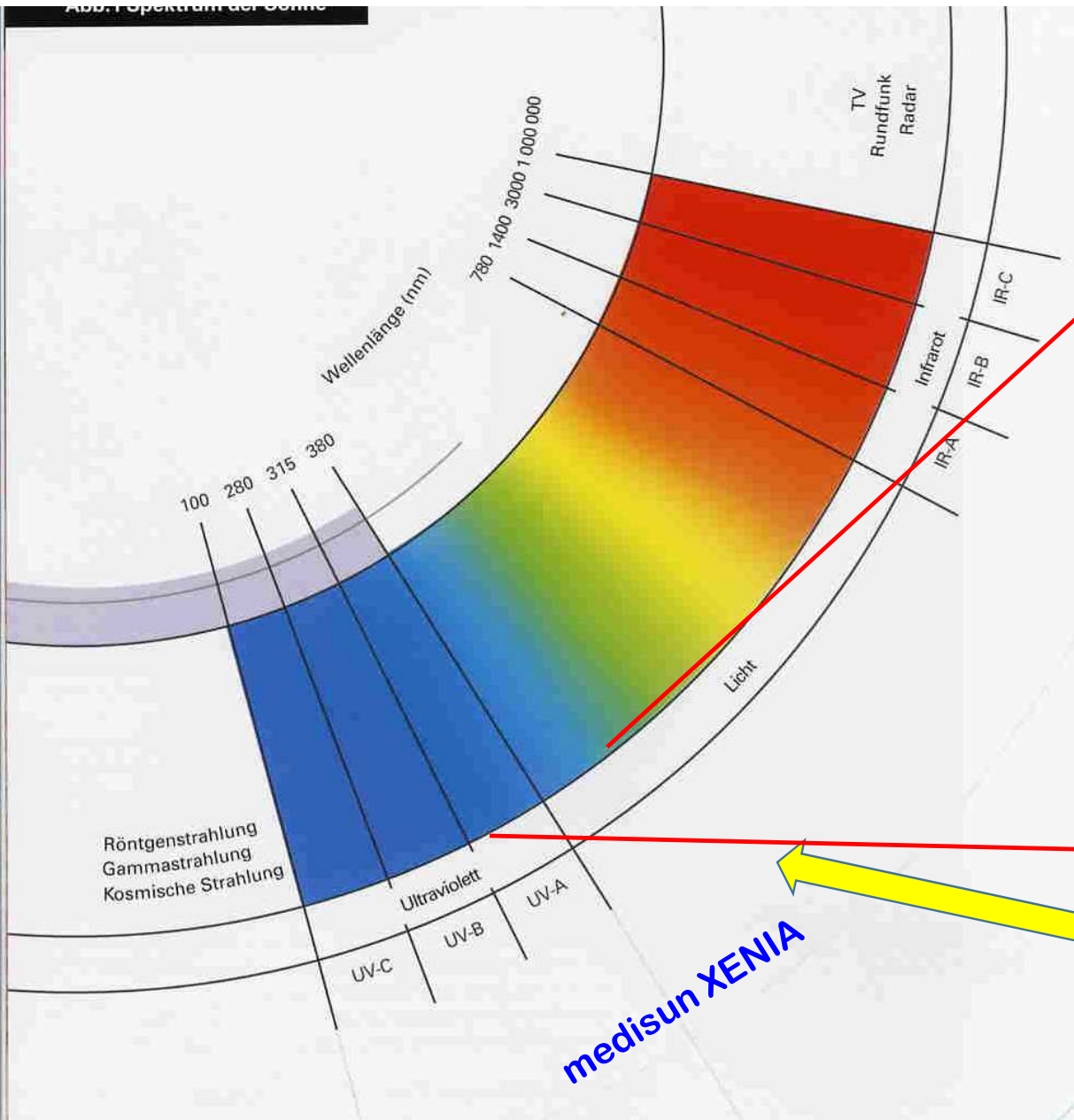
medisun® XENIA UVA1



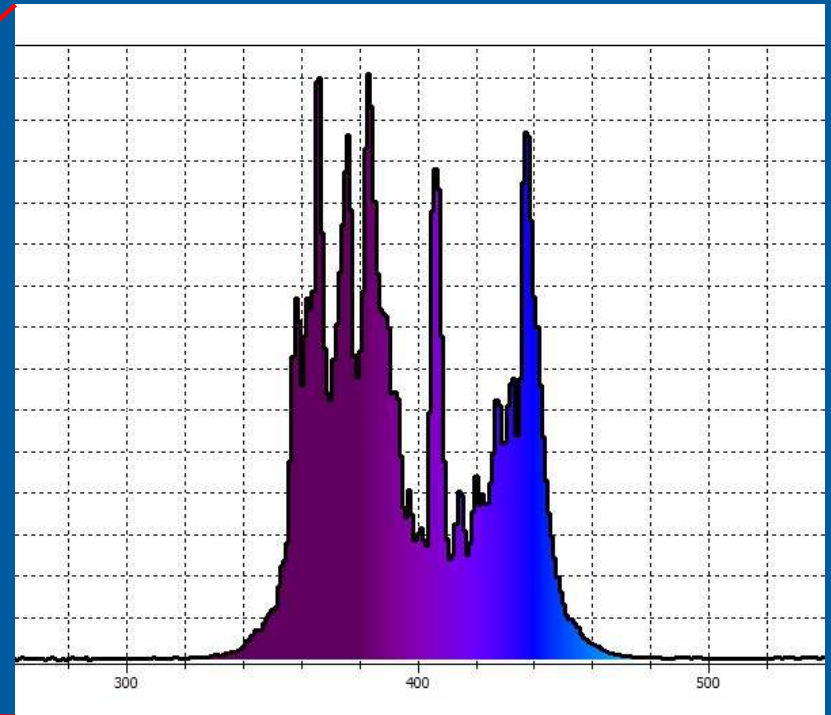
- State of the art
- Unrivalled technology
- Cortisone-free UVA1-therapy
- Excellent results in many autoimmune diseases

The New Generation

Abb. 1 Spektrum der Sonne



UVA1-Spektrum



medisun XENIA

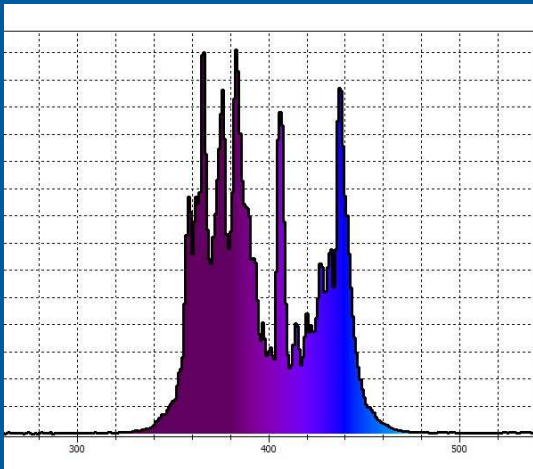
Spectrum of the electromagnetic waves

Advantages UVA1-spectrum:

- UVA1 spectrum: 340 – 460 nm, UVB-311 spectrum: 310 – 315 nm, PUVA spectrum: 315 – 400 nm

- **Special advantages of UVA1:**

- In comparison to UVB-311 and PUVA spectrum no redness can appear.
- Higher intensities are possible with approx. 60 mW/cm²
- Longer treatment times possible and so higher dosage up to 130 J/cm²
- Higher dosage leads to better therapy results.
- Better therapy affect by Atopic Dermatitis (Eczema) in comparison to UVB-311 and PUVA spectrum. So also severe forms of Eczema can be treated successfully.
- Successful treatment of many different autoimmune diseases. UVA1 has a immunosuppressive effect.
- Cortisone free treatment with a high success rate of more than 80% and only less side effects.
- Patients will be free from symptoms in a short time (approx. after 10 – 15 treatments)



UVA1-sensitive Skin diseases

There are a large number of skin diseases that can be treated successfully with the UVA1-light therapy:

- **Atopic Dermatitis (Eczema)**
- **Polymorphic light dermatosis (PLD)**
- **Cutaneous T-cell lymphoma**
- **Prurigo (Itching)**
- **Circumscribed Scleroderma**
- **Further autoimmun diseases**
- **And other diseases**

Eczema (Atopic dermatitis) -1

- Eczema is a chronic inflammatory reaction of the skin.
- There is a skin reddening, which is limited to the place of skin irritation. Blisters can occur which are filled with clear liquid. They can itch strongly. The blisters can burst and soak. After drying, crusts can develop and finally scales.
- In the case of chronic eczema, these different forms of the skin reaction (skin redness, blisters, crusts, scales often occur simultaneously and alternately side by side. Inflammatory nodules can also occur.
- Up to 10% of children and young adults are affected by this skin disease.
- By the affected people the body reacts with an overwhelming defense reaction against principally harmless substances (allergens). Eczema is often caused genetic.
- The eczema can occur at every part of the body and can also affect the whole surface of the skin. Mostly, however, elbow, knee, face, neck, hand and foot are affected.



Eczema (Atopic dermatitis) - 2



- People with eczema suffer under a particularly sensitive, dry skin, which is often cracked and scaly . There is often a strong itching, burning and pain on the skin.
- The following factors can lead to an outbreak or to a worsening of the diseases:
 - Food and food additives
 - Mechanical irritations of the skin
 - Infections
 - Animal hairs and animal feathers
 - Environmental factors, for example pollen, house dust mites, cigarettes smoke
 - Psychological factors, for example strain and stress.
 - Climatic conditions, for example strong temperature fluctuation.

Polymorphic Light Dermatitis (PLD)



- The Polymorphic Light Dermatitis is the most common form of the „ sun allergy“.
- After the first rays of sunshine skin rashes occur with strong itching or bubble.
- The changes of the skin are mainly on the outer side of the upper arms, on the neck and also in the face.
- Approx. 20 % of the population are affected from this skin disease.

Cutaneous T-cell lymphoma



- Cutaneous T-cell lymphomas (Mycosis fungoides and Sézary-Lymphoma) are lymphomas of the skin, which have developed from the uncontrolled growth of malignant lymphocytes. A cutaneous T-cell lymphoma usually develops slowly over several years.
- In early stages, the skin can be dry and itchy. Also dark spots can appear. When the disease progresses, thickenings (tumors) can develop on the skin. This is the so called "Mycosis Fungoides".
- If larger areas of the skin become affected, an infection can occur additionally. The disease can spread to lymph nodes or other organs such as spleen, lungs or liver. If a larger number of certain tumor cells are found in the blood, this condition is also called as "Sézary Syndrome".
- As long as a cutaneous T-cell lymphoma is only cutaneous, it can be treated locally very well. A systemic spread, however, requires systemic therapy.

Prurigo (Itching)



- "Prurigo (itching), from lat. Prurire, Engl. itching), is an unpleasant sensation of the skin. The strong itching leads to a scratching of the skin.
- The skin changes caused by the scratching (scratch artifacts) can lead to reddening or bleeding sites with crustification afterwards.
- If nodules are scratched, the itching temporarily decrease.
- According to a study, around 70% of pruritus patients also suffer from psychosomatic or psychiatric disorders.
- The disease can occur in any age group, but often at the age of 60 years.



Circumscribed scleroderma



©-Wikipedia

- The circumscribed scleroderma is a chronically inflammatory disease of connective tissue that is characterized by thickening and hardening of the skin.
- Redness of the skin occurs with centrifugal expansion and central pallor. Sclerosis is formed with a surrounding inflammatory frame.
- Depending on the subtype and localization, structures which lies near the skin such as adipose tissue, musculature, joints and bones can be involved. An infestation of internal organs, e.g. Heart, lung, kidney is a rarity in circumscribed scleroderma, as well as transitions into a systemic scleroderma.
- It is an autoimmune disease, in which the immune system falsely fits against body structures.
- It is a relatively rare disease that affects 3 times more women than men.

medisun-UVA1-Therapy

**medisun XENIA UVA1-
High-End-System**

Starting from 2018



medisun XENIA UVA1 – the new generation

- **Special advantages of the device in comparison to the previous medisun model with the round design:**
 - **Open system which has not to be opened and closed.**
 - **Claustrophobic patients like to be treated in such an open system.**
 - **Larger and very comfortable mattress (230 x 115 cm)**
 - **Very good looking modern design**



Highlights of medisun XENIA UVA1 -1



- Cortisone-free, innovative UVA-1 blue light therapy for the treatment of eczema, circumscribed scleroderma and other autoimmune diseases in a comfortable way while laying
- Powerful device with $60 \text{ mW} / \text{cm}^2$ can reach a dosage up to $130 \text{ J}/\text{cm}^2$. High UVA1 dosage leads to better therapy effects than lower dosages. UV-Cabin with UVA1 lamps can max. reach approx. $30 - 35 \text{ mW} / \text{cm}^2$. Not possible to stand for approx. 20 – 30 minutes in a UV-cabin!
- Innovative UV Xenon lamp technology with 72 special lamps emit a selective light spectrum between 340 and 460 nm with excellent treatment results.
- Only 5,5 kwh Power consumption, energy savings up to 80% compared to previous models with high-pressure lamps. The installation of an expensive and also loud venting system can be dispensed because of very low heat of the system.

Highlights of medisun XENIA UVA1 -2



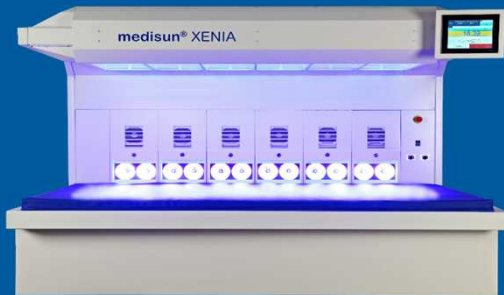
- **Fast amortization possible, because a strong demand exists especially for UVA1-treatment against autoimmune diseases and severe forms of eczema.**
- **Whole-body exposures and part-body exposures is possible. Partial irradiations can be carried out with 6 individually adjustable subfields.**
- **No warm-up time of the lamps necessary. Treatments can be performed without a break because no cooling phase is necessary.**
- **Special aluminum reflectors and high performance coated filters**
- **Ergonomic lamp configuration with 12 lamp modules. 6 Modules with 10 spotlights each on top and 6 modules with 2 spotlights each on side**
- **Adjustable and comfortable patient ventilation with 6 axial-ventilators**
- **Long lamp life with approx. 1.500 to 1.800 hours.**
- **Dosage range: 0 to 130 J/cm²**

Highlights of medisun XENIA UVA1 -3



- **Simple and safe operation**
- **The medisun computer control permits precise dosage in J/cm². The 6 single fields can be set to different strengths.**
- **Control: Panel-PC-System with operating system Windows 10**
- **The system can also be connected to the medisoft therapy management system with a network cable, and controlled and managed by remote PC, e.g. from the reception desk (as option).**
- **The medical staff can use pre-set therapy plans and a comprehensive documentation in the patient database for this (as option).**
- **The integrated patient history permits comprehensive insight into the current and all completed treatments. A comfortable protocol function permits printout of therapy protocols (as option).**

Further technical data of medisun XENIA UVA1 -1



- **Power supply: 400 V (3ph+N+PE), 3 x 16 A (slow), 50 Hz**
- **Dimensions L x D x H: approx. 240 cm x 160 cm x 185 cm**
- **Required room space: L 340 cm x D 300 cm x H 240 cm.**
- **Weight of device: Approx. 650 kg (on 4 castors)**
- **Required floor load: 500 kg/m²**
- **Permissible patient weight: Max. 130 kg (max. 180 kg with additional reinforcing plate)**
- **Spotlights: UV-VIS-Xenon-Spotlights 50 W (energy saving technology)**
- **Lying area: approx. 230 cm x 115 cm+**
- **Exposure area: approx. L 170 cm x D 50 cm (from top)
approx. L 170 cm x D 15 cm (from side)**



Thank you very much for your attention!

**Further information you can
find on our homepage
www.medisun.de/en/**

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