

GME German Medical Engineering GmbH

LinScan 808: true laser  
innovation made in Germany



*LinScan 808 is a powerful, portable laser for all skin types*

# LinScan 808 diode laser



Wavelength: 808 nm for all skin types

Power density: 2,000 W/cm<sup>2</sup> to remove fine hairs

Large treatment area: 50 \* 15 mm for very fast treatments

Strong cooling: 0° C for safe treatments

3 indications: hair removal, onychomycosis and vascular treatments

*LinScan 808 can be operated like a LightSheer or like a Soprano*

## Hair removal: 2 treatment options



- Standard Mode
- Parameters established during 30 years
- Very effective



- Motion Control Technology Mode
- Fluence is given in 2 sub pulses between 4 and 12 J/cm<sup>2</sup>
- Virtually pain free

„LightSheer“ -  
Mode

„Soprano“ -  
Mode

*LinScan 808 is as effective as LightSheer ET but 5 times faster*

## Standard Mode for Hair Removal



### Comparison to LightSheer ET:

- LinScan 808 has same power density as LightSheer ET:  
 $2,000 \text{ W/cm}^2$
- Treatment area is  $7.5 \text{ cm}^2$  compared to  $0.81 \text{ cm}^2$
- Treatments are much faster

*Linear Scanning = innovative method for laser treatments*

# Linear Scanning - Method



*Linear scanning combines effective settings and fast treatments*

## Linear Scanning - Advantages

### Optimal parameter for each skin type:

- Based on the clinical trials of Rox Anderson and many other experts
- Proven to be effective
- Short, strong pulses for fine hair
- Wide range of possible fluence and pulse duration

### 5 times faster:

- Treatment area (7.5 cm<sup>2</sup>) is almost 10 times larger than that of the LightSheer ET (0.81 cm<sup>2</sup>)
- Each scan of the 7.5 cm<sup>2</sup> takes about 1 sec

Established and  
proven settings

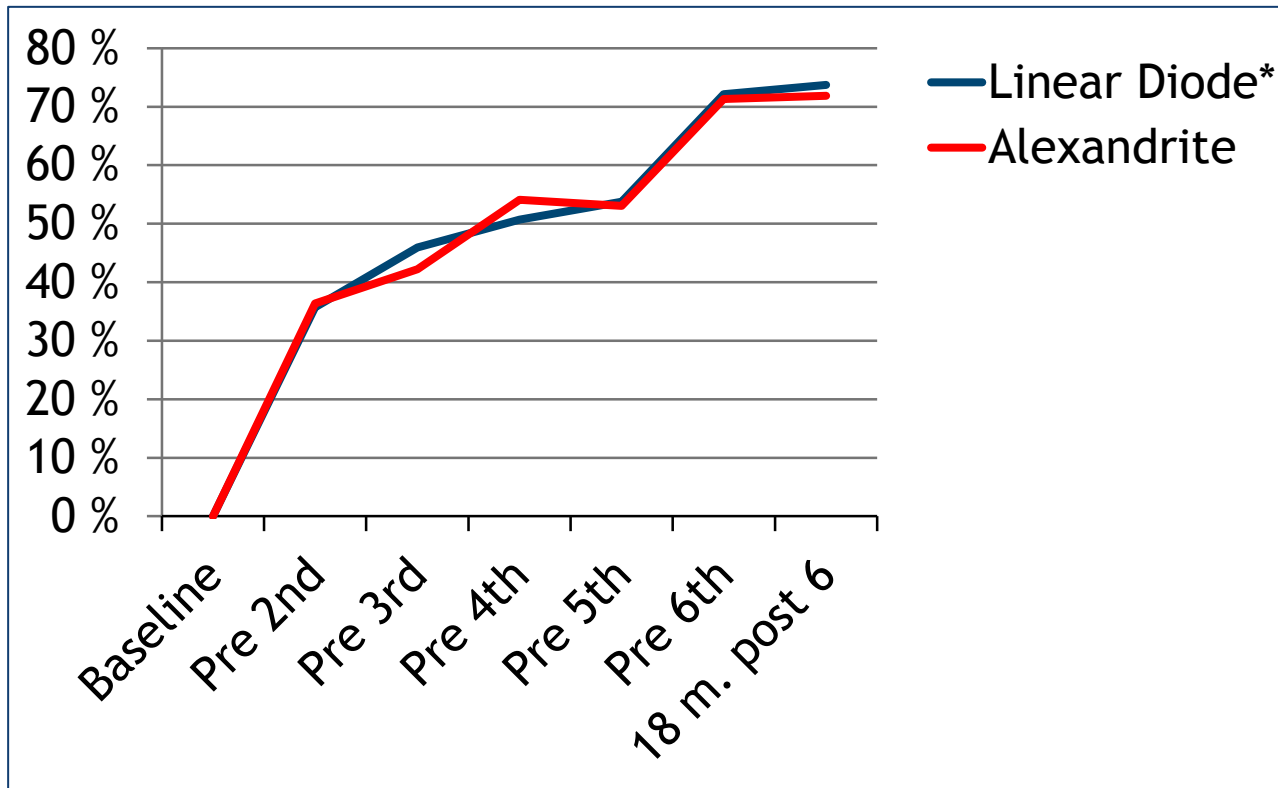


Speed: <15 min  
for a back

Linear Scanning is proven to be as effective as Alexandrite laser

# Linear Scanning - Clinical results

Reduction of number of hairs



Source: Grunewald and Paasch: “Long-Term Efficacy of Linear-Scanning 808nm Diode Laser for Hair Removal Compared to a Scanned Alexandrite Laser”, Lasers in Surgery and Medicine, 2013

\* LEDA EPI system from Alma Lasers. LinScan 808 has similar fluence, pulse duration and working mode.

# Before - after pictures hair removal

3 month after 7<sup>th</sup> session



Settings:

Standard / Fluence 24 - 40 J/cm<sup>2</sup> / PD 25 - 20 ms



## 2 months after 6<sup>th</sup> session



Settings:

Standard / Fluence 24 - 40 J/cm<sup>2</sup> / PD 25 - 20 ms

## 6 weeks after 1<sup>st</sup> session



Settings:

Standard / Fluence 28 J/cm<sup>2</sup> / PD 30 ms

## 6 weeks after 1<sup>st</sup> session



Settings:  
Standard / Fluence 28 J/cm<sup>2</sup> / PD 30 ms

4 weeks after 4<sup>th</sup> session



Settings:

Standard / Fluence 22-28 J/cm<sup>2</sup> / PD 20-30 ms



4 weeks after 2<sup>nd</sup> session



Settings:

Standard / Fluence 22 J/cm<sup>2</sup> / PD 30 ms

4 weeks after 4<sup>th</sup> session



Settings:

Standard / Fluence 26-30 J/cm<sup>2</sup> / PD 20 ms

*Pulse stacking mode like Soprano (so-called SHR super hair removal) is primarily performed by the machine and not the operator*

## MCT Mode for Hair Removal

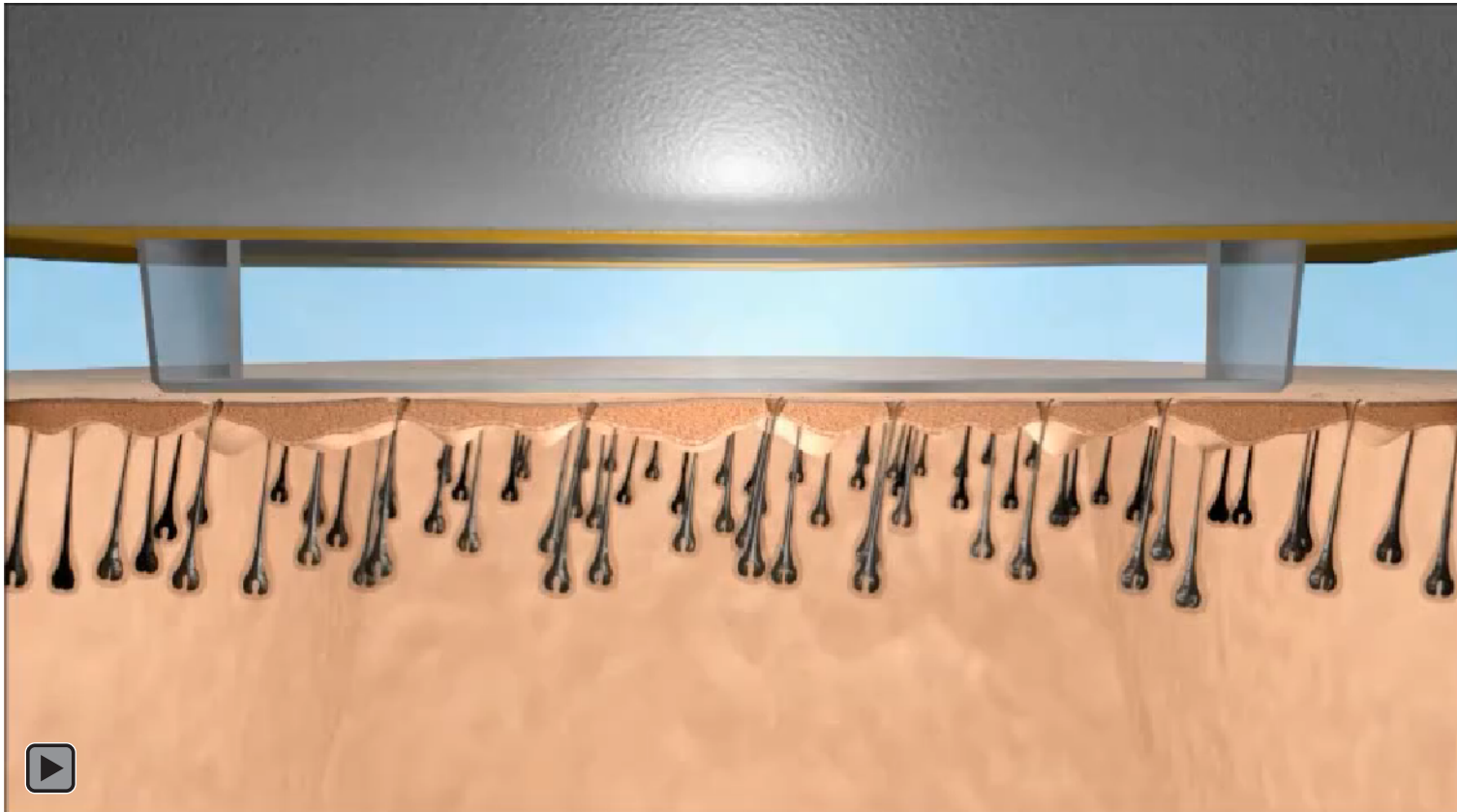


### Comparison to Soprano:

- Pulse stacking is performed by machine and not operator
- No need for frequent repositioning of handpiece
- Result is more predictable as motion is controlled by machine and not operator

*MCT = controlled and automatic pulse stacking*

## MCT - Method





*MCT = controlled super hair removal*

# SHR versus MCT

## SHR Super Hair Removal

- Laser fires at 10 Hz
  - Fluence per shot is between 5 and 12 J/cm<sup>2</sup>
  - Each hair follicle receives approximately 1 to 3 shots when the laser is „in motion“
  - Operator has to move the handpiece to avoid overheating
- Comfortable option for thicker and darker hair. Results depend from operator.

Effective for thicker hair



## MCT Motion Control Technology

- Laser scans at 10 Hz
  - Fluence per shot is between 8 and 24 J/cm<sup>2</sup>
  - Each hair follicle receives exactly 6 shots (2 sub pulses \* 3 passes)
  - Laser automatically moves the scanner to avoid overheating
- Comfortable option for thicker and darker hair. Reproducible results.

Virtually pain-free

*LinScan 808 is a fast and effective treatment option  
for onychomycosis*

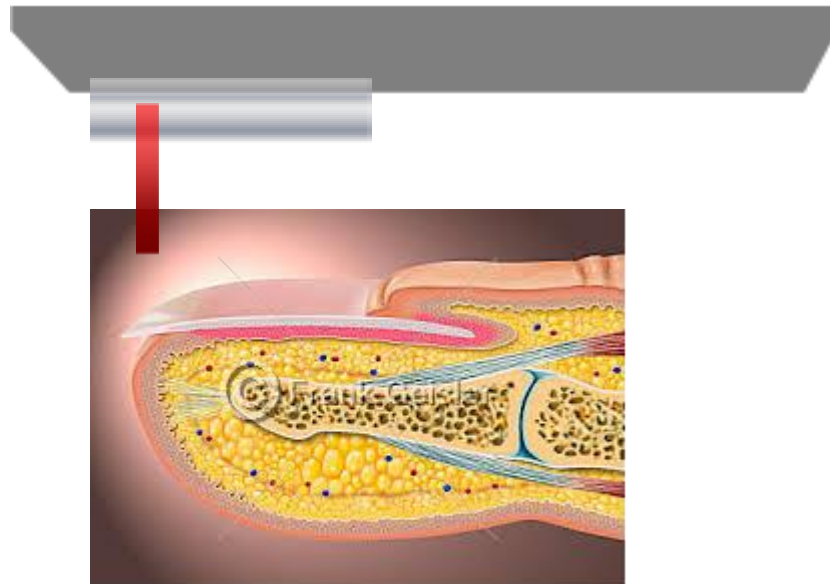
# Onychomycosis (nail fungus)



*The treatment is very fast and simple*

# Onychomycosis treatment

- The energy is delivered in 4 controlled sub pulses;  
E.g. 4 times  $7.5 \text{ J/cm}^2 = 30 \text{ J/cm}^2$
- There is no need to move the laser to avoid overheating
- Less painful treatment with even better results than with only a single pulse



*LinScan 808 is faster and less painful*

## Advantages of LinScan 808

- Efficient: < 10 min instead of up to 45 min with other lasers
- Effective: the temperature on top of the nail is 92 °C, in peaks even up to 300 °C
- Less painful because of the wavelength:  
808 nm light is heating the nail from the outside to the inside;  
1064 nm light is penetrating much deeper and is also heating the bone
- Less painful because of multi pulse regime

*The treatment protocol has been established by leading dermatologists*

# Treatment protocol

- Apply five passes
- Start with the great toe (Dig I), continue with the other toes (Dig II-V)
- Ensure that the whole nail plate is heated uniformly

## Number of sessions and intervals:

- Ideally 4 sessions with 1 week interval
- Afterwards 1 session every 6-12 weeks until complete healing (regrowth of the healthy nail takes about 1 year)

# Clinical results



**Before**



**16 weeks after 4<sup>th</sup> session**

Settings:

Multi Pulse / Fluence 30 J/cm<sup>2</sup> / PD 4 ms



**Before**



**After 2 months**

**Settings:**

**Multi Pulse / Fluence 30 J/cm<sup>2</sup> / PD 4 ms**

*LinScan 808 can also be used for superficial vascular treatment*

# Vascular treatments





*Good results after the first treatment*

## Vascular treatment - superficial varicose



### Treatment parameters:

- Between 80 and 90 J/cm<sup>2</sup> within shortest possible time (40 ms and 45 ms)
- No EMLA, no cooling
- Slight contact with the skin
- Between 1 and 3 shots on one area
- Endpoint: visible closing of vessel

*LinScan 808 is easy to use and fully transportable*

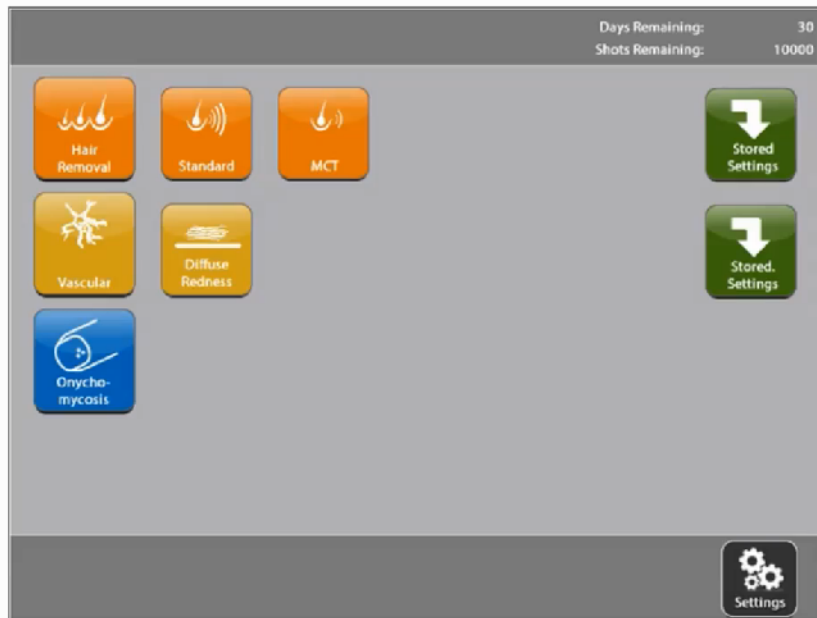
# General features



- Software is like a smartphone
- Laser is fully transportable
- Cart is available

*The software makes LinScan 808 easy to use -  
for everybody in your practice*

# Software - Hair removal



# LinScan 808 is fully transportable and can be mounted on a dedicated cart



*Various accessories are available*

# Accessories



- Adapter for areas that are difficult to reach
- Adaptor for cold air cooling

*A special adaptor can be attached to the sapphire for treating areas that are difficult to reach (e.g. bikini line or peri-oral)*

## Small Spot Adapter



*Using cold air instead of contact cooling is immediately evaporating all hair - similar to treatments with Alexandrite lasers*

## Cold Air Adapter





*Immediate removal of all hair with LinScan + Zimmer*

## Treatment results using cold air



Before

After 18 days

1.5 months  
after 1<sup>st</sup> session

Settings: Standard / Fluence 12 - 14 J/cm<sup>2</sup> / PD 25 - 20 ms



*LinScan 808 is an effective, safe and economical device*

## Summary

Effective

Proven results - also in the long run

Fast

Short treatment time: < 15 min for a back

Comfortable

Very strong cooling

Universal

Hair removal all skin types and treatment areas

Economical

30 Mill. shots during warranty period

Easy to use

Software like a smart phone

**Thank you for your attention!**