

How to use UV Phototherapy?

Step 1: please take a bath for 15 to 20 minutes to remove skin surface skin cells (scales) before treatment.

Step 2: patients need to determine the MED.

Note:

1. Intensity of the Brightwand is 7 mW/cm²

2. MED calculation method: irradiation time S = dose (J/cm²) * 1000/7 (mW/cm²)

Step 3: Undergo the first treatment within safe distance between machine and skin lesion is typically 3cm

Step 4: Evaluate the first treatment effect, then adjust the time, and distance for each further treatment.

Treatment:

Psoriasis: 3 ~ 4 times / week, (15 ~ 20 treatments) at 40+ seconds per treatment depending on patient response/need.

Vitiligo: 2 ~ 3 times / week, (30-50 treatments) at 40+ seconds per treatment depending on patient response/need.

Parapsoriasis: PUVA, UVA/UVB, NB-UVB: 4 times / week, until improvement.

Dosage and time adjustment:

1. No erythema or Previous light erythema disappeared	Each usage increase 20~ 25% /dose.
2. Mild erythema effect	Same as the last dose or increase 10% dose, if erythema effect disappears, same as 1.
3. Asymptomatic, clear the shining erythema	Stop treatment for one time, then with the same exposure, and/or with 10% increase dose.
4. Painful erythema, or with edema, blister	Stop treatment, until recovery. Reduce the dose by half, subsequently every time increased by 10% dose.

MED test method:

Step one: choose your skin type

Table 1 Skin type

Skin Type	Sun Reaction	Skin Color
I	Easy to sunburn, never tan	Blue eyes, red hair, extraordinarily white skin
II	Easy to sunburn occasional tan	Blue / green / gray eyes, less skin spots, blond or brown hair, white skin
III	Sometimes sunburn, easy to tan	Gray / brown eyes, no skin spot, dark brown hair, white to light brown skin
IV	Never sunburn, easy to tan	Black eyes, no skin spot, dark brown hair, light brown skin
V		Brown Skin
VI		Black Skin

For example: III type skin

You can see the initial dose is 0.3 J/cm²

Table 2 Narrow band UVB Dose

Skin Type	The Initial Dose (J/cm ²)	Increasing Dose (J/cm ²)	Maximum Dose (J/cm ²)
I	0.2	0.05	2
II	0.2	0.05	2
III	0.3	0.10	3
IV	0.3	0.10	3
V	0.4	0.15	5
VI	0.4	0.15	5

The machine Intensity is 7 mW/cm²

MED calculation method for: irradiation time S = dose (J/cm²) * 1000/7 (mW/cm²)

Time=0.3J/cm²*1000/7mW/cm² =43 seconds

This mean: you need to irradiate 43 seconds at the first time, and so on.

Notice:

- Although the method that determines radiation dosage by skin type is simple, but not as accurate as MPD or MED.
- Specific drugs may increase the skin sensitivity to light, thereby to affect the determination of skin type.
- It is also important to learn about the patient's reaction after long-term sun exposure to determine radiation dose. If two patients are the same skin type, the slow to tan one should adopt a lower dose.

FAQ

1. How to set the treatment time

According to the skin color/change, setup the time and dosage accordingly

First treatment: treat for 40 seconds

After 6 to 8 hours (post-use), if the skin color is a little red, then this is a good sign, and then keep the treatments to 40 seconds for irradiation.

After 6 to 8 hours, if there is not any color change on the skin, then add 10 seconds to the treatment time (so 50 seconds).

Keep increasing by 10 seconds until you experience a nice light red color change after 6-8 hours (post use)

After 6 to 8 hours, if the skin color is very red, reduce 10 seconds.

2. Treatment Time frequency

3 to 5 times every week, Irradiation every two days, for 2 to 3 months. Then pause treatments for 2 weeks. Continued use can be resumed as a repeat to this first frequency

3. Does normal, non-affected, skin needs to be covered?

You can cover the normal skin by using clothing when irradiation. If the normal skin, is not covered, it is also safe and no damage will occur.

Only the normal skin maybe has a little red or black, but it will recover well after a certain time.