

Home Use Devices (HUD)

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Nowadays, it is possible to buy freely in appliance stores or on the internet energy-based devices for domestic use in many fields of aesthetic and medical dermatology: skin cleansing, hair removal, hair regrowth, rejuvenation, dental whitening, active acne, psoriasis, eczema, vitiligo, etc. It should be noted that the most popular domestic appliance is a kind of round electric brush that removes the stratum corneum in order to apply cosmetics that will penetrate more effectively. There are plans to measure certain biological parameters in order to establish a diagnosis, measure the effectiveness of treatments, improve well-being, cellulite and achieve skin disinfection.

The operating principle of these devices tries to take back the one that is used for medical devices with powerful and expensive machines but whose effectiveness is already proved. There are a lot of devices available on the aesthetic market and it is difficult for the consumer to know which is the most effective. It must be explained to him that these devices do not have the same effectiveness as the devices used by doctors.

DEPILATORY DEVICES

These are the ones that cause the most questions of consumers to the dermatologists regarding their effectiveness because their price remains very attractive. Indeed the prices range from around 300 € to more than 1000 € knowing that the most expensive device gives better results than the others. It is not conceivable to buy a device cheaper than this range if one wants to have a semblance of result. We need a minimum of light power to reach the hair, and it is not a flashlight or a camera flash that will achieve this goal. In this arsenal, there are only 2 real lasers (at 810 nm), but they emit a spot of only 1 mm in diameter to retain a certain power (the work will be very very long and is addressed only to small areas). The other devices are pulsed lights (IPL) which do not have all the same power and the same spectrum of light emission and therefore the same efficiency. Moreover, their working surface differs from one machine to the other and if one wants to depilate large surfaces, it will be necessary to privilege the one that emits the largest spot.

Are these devices effective? Yes in the short term for many, yes in the medium term for a few devices only, but do not expect the same long-term result as with the devices used by dermatologists in their practice.

Are these devices safe? Yes, because industries have worked hard on the security aspect especially with the new standards (in 2014 and 2016) that had still evolve in the right direction. The new regulation 2017/74 came into force on 26/5/2021. All these devices are now classified as "medical devices" and must therefore display a medical C.E. and no longer an electrical C.E.. This means that medical efficacy must be proven in order to display this medical C.E.. In 2022, only one HUD hair-removal device will do so, having proved its efficacy in a double-blind study (underarm hair removal). So any

new device arriving on the market must seek to obtain this medical E.C., and those already on the market will have 2 years to do so. We're likely to see the disappearance of certain far-fetched devices. Moreover, they will undoubtedly be asked to prove their effectiveness through a well-conducted study in order to display the famous "medical CE" marking and not simply the "electric CE" of today. But this safety may have been developed at the expense of the efficiency.

Which device to buy? : You should question your dermatologist and do not hesitate to show him the advertising or technical flyer of the device that you plan to buy. Dermatologists are not hostile to these devices because they can be used in addition to the sessions practiced in the office. For example, for facial hair removal, when the patient's hormonal profile requires a high number of maintenance sessions.

ANTI-ACNE DEVICES

Currently, we only find devices based on L.E.D. (Light Emitting Diodes) which are supposed to have an anti-inflammatory and anti-bacterial action specific to the germ conventionally incriminated in acne. Let us say right now that it remains theoretical and that no serious study has shown an efficacy of these HUDs in acne. Dermatologists are used to manage acne in every forms with therapeutics that have proved their effectiveness and reimbursed by our social security, so do not hesitate to contact us. A facial mask offered by a major cosmetics brand has been withdrawn from the market because of the potential ocular risk.

It should also be noted that the American Academy of Dermatology does not recommend this type of technique due to the lack of proven clinical efficacy.

Beware, too, of the use of blue light, which can aggravate melasma (pregnancy mask).

ANTI-AGING DEVICES

Here we have a whole panel of very disparate HUD but everyone claims results that are rarely scientifically proven. Among rather wacky devices, we can find devices providing an electromagnetic action on the skin, others with weak LEDs, others that emit radiofrequency so low that it does not penetrate the skin. There are also rollers that only act on the stratum corneum, but being sold with cosmetics that are supposed to penetrate through the small cutaneous perforations created. There are nevertheless some small non-ablative fractional lasers which have been the subject of well documented publications, but we don't know if their anti-wrinkle effect is only the consequence of a small edema which will disappear with time. So no miracle here, it's a bit like those anti-wrinkle creams that promise us miraculous effects.

DEVICES FOR HAIR REGROWTH

There are some studies reporting the benefits of devices (helmets, combs ...) based on red LED that are effective on the regrowth of hair in alopecia of variable cause. These studies are not irreproachable small-scale, non-competitive, often sponsored by the manufacturers of these devices and are insufficient to be considered as "evidence-based medicine". Most of the results come from "in vitro" studies and are not necessarily transposable to human clinical reality. There are also other effective treatments against male and female alopecia that your dermatologist will prescribe you safely.

OTHER DEVICES

There are anti-cellulite devices that reproduce in miniature those found in physiotherapists and based on the principle of "palpate roll".

For psoriasis, there will be a choice of 2 types of devices that emit blue light. One emits UV rays with all the restrictions related to UV (aging and skin cancers), and the other is a LED emitting a blue light without any UV. These devices are intended to improve one or two resistant plaques of psoriasis but are not indicated for the treatment of diffuse psoriasis.

This list is not exhaustive and is likely to be extended in the near future, including the management of atopic eczema, vitiligo...

To summarize, we must not mistake a commercial speech with a scientific speech based on evidence with publication in serious scientific journals. We will try to keep this section up to date...

This information sheet recommended by the French Laser Society can be given to you by your dermatologist.

This information sheet recommended by the French Laser Society can be given to you by your dermatologist. Even if it is not sufficient to have an estimate, it helps to give the patient a clear information.

The information consultation provides clear explanations on expected outcomes, side effects and possible complications. There are not any reimbursement from social security or medical leave for these aesthetic treatments. Prices are mainly based on the area to be treated. The total cost is to be evaluated with the patient and is the subject of a signed quote. A post-operative order (aqueous disinfectant, healing or antibiotic ointment, sunscreen, etc.) and an advice sheet are given to the patient with the doctor's contact information.

For more information before the act, you can always see your doctor for a second consultation.



Laser et Peau : **the French-language information site for patients, written by expert dermatologists from the Société Française des Lasers en Dermatologie.**

Everything you need to know about laser treatments, pulsed light, radiofrequency and other techniques for skin care or aesthetic applications.



SCAN ME