The first 4 wavelength diode laser for hair removal

INNOVATION

Finding the one "perfect" laser is impossible as patients have marked differences in their skin color, hair color, hair thickness and hair depth.

Milesman, a world-class innovator of dermatologic lasers is proud to announce the new Milesman compact blend - the first 4 wavelength laser on the market.

Beginning in 1995 laser hair removal became a popular treatment option for the reduction of unwanted hair. Laser hair removal treatment is based on the principle of selective photothermolysis.

In this process the absorbed optical energy is converted into heat energy which amongst other things coagulates the hair follicle.

The wavelength range of 650 to 1,300 nm is considered generally suitable for typical depth of hair from 1 mm to 3 mm. Within this range the absorption by melanin is greater than competitive absorption by oxyhemoglobin and water.

If the treatment is performed at wavelengths closer to the outer limits (650 nm or 1,300 nm) the competition with other chromophores is too high. Therefore, it is recommended to work between 750 to 1,100 nm which is where the hair removal treatment is most efficacious and is protected from other chromophore absorption..

Within this range there are several lasers that are commercially available and which are capable to deliver sufficient energy. Those wavelengths are 755, 810, 940, 980 and 1,064. Numerous published clinical studies have demonstrated the safety and efficacy of these wavelengths for hair removal.

Among them, the best penetration depth is achieved at 1,064 nm but this wavelength absorption in hair melanin is relatively low and the efficacy of treatment is not very high.

Maximum efficacy occurs around 755 nm but the penetration depth is limited at this wavelength.

Finding the one "perfect" laser is impossible as patients have marked differences in their skin color, hair color, hair thickness and hair depth.

Milesman, a world-class innovator of dermatological lasers, is proud to announce that we now offer 2 options to choose from:

- **Milesman compact 810 nm**
- The new **Milesman compact blend**, the first 4 wavelength laser on the market.

MILESMAN, A WORLD-CLASS INNOVATOR OF DERMATOLOGICAL LASERS, IS PROUD TO ANNOUNCE THAT WE NOW OFFER 2 OPTIONS TO CHOOSE FROM. A SINGLE MODE 810 NM OR THE FIRST 4 WAVELENGTH LASER ON THE MARKET.

MILESMAN COMPACT (810 NM)

Based on clinical evidence, a hair removal diode laser of 810 nm is considered as the universal standard for hair removal for most skin types. It is also the most commonly used wavelength in the crowded hair removal market. The downside is that light color or fine hair may be resistant to the treatment due to scarcity of pigmentation in the hair shaft. Treatment of dark skin type patients can also be difficult due to skin melanin absorption. Light color and fine hair respond better to 755 nm, while a wavelength of 1,064 nm is more suitable for dark skin.

Milesman Compact (810 nm) is the compromise between these two ranges which has better penetration depth than 755 nm and much higher absorption coefficient of melanin than 1,064.

If your average patient is a skin phototype I-IV with dark, regular hair this is by far the top choice laser wavelength and will provide the best result in this range of skin and hair.

MILESMAN COMPACT BLEND 4 WAVELENGTH (755 NM, 810 NM, 940 NM, 1,064 NM)

A solution to more effectively treat the full spectrum of patients you may encounter is to use a combination of several wavelengths which are already well-known and clinically proven for laser hair removal treatment.

HAVING 4 WAVELENGTHS RESULT IN HOMOGENOUS COVERAGE OVER THE EFFECTIVE RANGE NECESSARY TO ACHIEVE HAIR REMOVAL.

The combination of the well-accepted 810 nm and these other proven wavelengths would improve penetration depth and safety for darker skin and optimize treatment for different hair colors all while maintaining relatively high efficacy of the resulting outcome.

If your patient population spans the six skin phototypes spectrum or they are mainly phototype III-V and / or with fine or residual hair, then the **Milesman compact blend** is the perfect choice.

Milesman compact blend offers a FOUR WAVELENGTH model as an added feature which makes it very unique to other blended wavelength lasers.

WHY 4 WAVELENGTHS AND NOT 3?

Having 4 wavelengths result in homogenous coverage over the effective range necessary to achieve hair removal. In a three wavelength system you typically have:

- **755, 810 and 1,064** there is a **large gap** between the 810 and 1,064 wavelengths.
- **810, 940 and 1,064** misses the very important 755 nm that treats the fine and residual hair. **Milesman compact blend** more effectively covers the hair removal spectrum to ensure complete coverage of the area while minimizing that wavelength gap.