

## #HifuAesthetic#

The treatment of Red blood vessels with 980nm laser

# 980NM diode laser vascular vein removal machine

vascular/spider veins removal

Germany's laser diode  
OC/OT protect technology

Stable performance

Sufficient power



980nm laser is the optimum absorption spectrum of Porphyrin vascular cells. Vascular cells absorb the high-energy laser of 980nm wavelength, solidification occurs, and finally dissipated

In medicine, red blood vessels are called capillary vessels (telangiectasias), which are shallow visible blood vessels with a diameter of generally 0.1-1.0mm and a depth of 200-250µm.

## What are the types of red blood vessels?



1. Shallow and small capillaries with a red mist-like appearance.



2. Deeper and larger blood vessels, appearing as red stripes.



3. Deeper blood vessels, appearing as blueish stripes with unclear edges.

## How are red blood vessels formed?

- Living in high-altitude areas.** Prolonged exposure to thin air can cause capillary dilation, also known as "high-altitude redness". (In an environment with relatively low oxygen, the amount of oxygen carried by the arteries is not enough for the cells to use. In order to ensure cell supply, the capillaries will gradually dilate to allow blood to pass through faster, so high-altitude areas will have high-altitude redness.)
- Over-cleaning.** Excessive use of various exfoliating products to scrub the face and soap-based facial cleansers can cause strong protests from the skin.
- Overusing some unknown skincare products.** Buying some skincare products with the lure of "quick effects" at random can forcibly turn oneself into a "hormonal face". Long-term use of hormonal drugs can cause collagen protein degeneration in the skin, reduced elasticity and increased fragility of capillaries, ultimately leading to capillary dilation and skin atrophy.
- Irregular acid application.** Long-term, frequent, and excessive acid application can damage the sebum film, causing the appearance of red blood vessels.
- Prolonged facial irritation.** Habits such as washing the face with water that is too hot or too cold, or prolonged exposure to wind and sun can cause facial redness. (Under the hot sun in summer, capillaries will dilate because a large amount of blood needs to pass through the skin's capillaries to exchange heat, and sweating is used to maintain normal body temperature. If the weather is cold, capillaries will constrict, reducing the speed of blood flow through the body surface and reducing heat loss.)
- Combined with rosacea (alcohol-induced nose redness).** It often appears in the middle of the face, accompanied by symptoms such as skin redness and papules, and is often mistaken for "allergies" and "skin sensitivity".
- Congenitally thin skin with capillary dilation.**

## The treatment of Red blood vessels:

In simple terms, the cause of red blood vessels is inflammation due to damage to the skin barrier function. Capillaries that connect arteries and veins in the dermis malfunction, and the capillaries suddenly forget their ability to both expand and contract, causing them to continuously expand. This expansion is visible from the epidermal layer, resulting in the appearance of redness.

Therefore, the first step in treating red blood vessels is to repair the skin barrier. If the skin barrier is not repaired properly, a vicious cycle will be formed.



## So how do we repair it?

- Avoid products that contain irritating ingredients such as alcohol (ethyl and denatured alcohol), irritating preservatives (such as higher concentrations of methylisothiazolinone, parabens), artificial low-grade fragrances, industrial-grade mineral oils (which contain many impurities and may cause adverse skin reactions), and colorants.
- Since the main components of intercellular lipids are ceramides, free fatty acids, and cholesterol in a ratio of 3:1:1, it is recommended to choose skincare products that are close to this ratio and structure, as they are more helpful for skin repair.
- To avoid exacerbating skin barrier damage, daily sun protection is essential. Choose safe sunscreen and enhance physical sun protection.

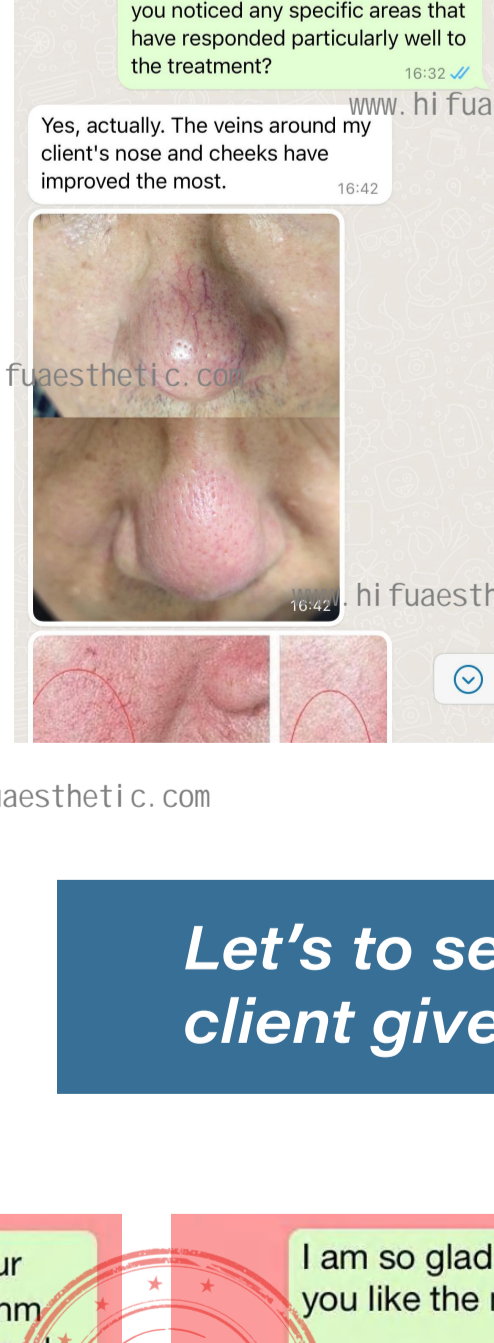
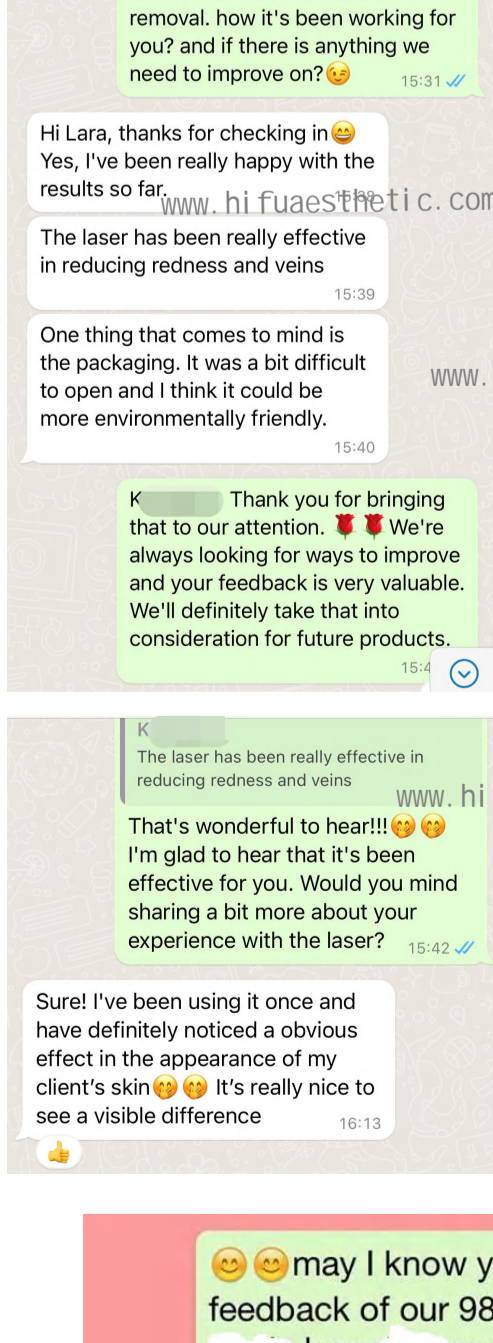
## After the skin barrier is fixed, 980nm laser treatment can be chosen.

Laser : 980nm

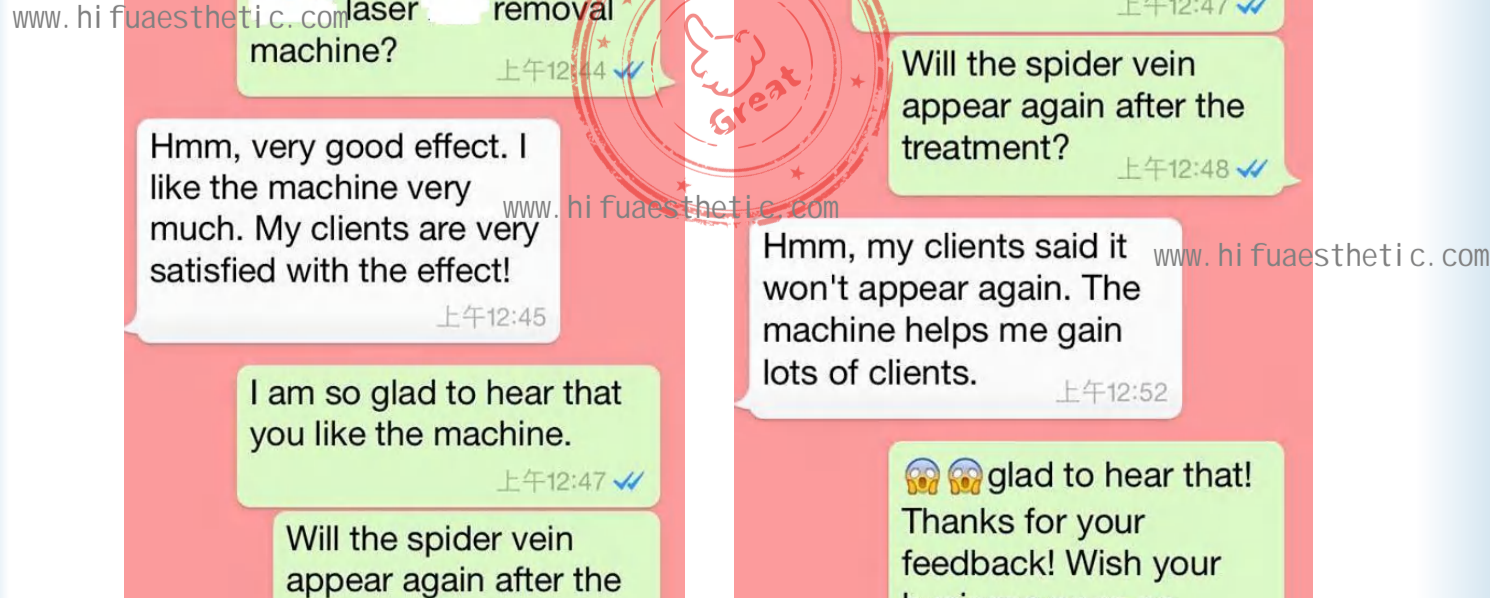
**Peak absorption and treatment depth:** Absorption of oxygen and hemoglobin  $\geq$  melanin ( $>$  less absorption of melanin after 900nm); 3-5mm.

**Main Indications:** Facial telangiectasia, PWS, leg telangiectasia, venous lakes, more suitable for larger blood vessels

## The effect of 980nm for Vascular removal



Let's to see how did our client give feedback?



Believe us, we won't let you down.

—The Best HifuAesthetic