Safe and effective IPL Treatments

Bad reactions to IPL treatments are the most common cause of lawsuits in aesthetic clinics. Below is an algorithm to help prevent a bad outcome (blisters, scabs, scars, hypo or hyper pigmentation following IPL treatment).

1. The goal is to target pigment and unwanted vessels and leave the normal skin unaffected (selective photothermolysis).

2. Normal pigment competes with abnormal pigment and hemoglobin in vessels—tanned patients and dark skin patients are more likely to have adverse effects. Any substance on the surface of the skin can also absorb energy and create complications. Be certain to remove all makeup, sunblock, self-tanning products and never treat over a tattoo.

3. Filters are also important. A 515 filter is highly absorbed into both hemoglobin and melanin, but also normal skin pigment. This is a good filter for type I and II skin. 560 is good for types I-IV and 590 is good for type IV. Type VI skin should not be treated with IPL.

4. A successful treatment of pigmented lesions leaves the pigment within the abnormal pigmented lesions slightly grey, darker brown or black and the normal skin unaffected (not red, white or grey).

5. **BE SAFE! DO A TEST PATCH!** Cut a 1 cm diameter hole in a stack of 3 double layers of wet gauze (enough gauze to block the transmission of light except for the hole cut into the gauze). Apply cold ultrasound gel, ice or a DermaPop (50% frozen water and 50% ultrasound gel frozen on a Popsicle stick) to the skin exposed through the hole in the gauze.

6. Choose the appropriate setting based on manufacturer recommendations for the type of lesion and skin type. Shoot a pulse of light through the hole in the wet gauze within one second of removing the ice, cold gel or DermaPop, and then observe for 10 minutes before doing a full treatment. Repeat this for each region of the skin to be treated (face, neck, trunk, arms, etc.) because the light reaction will change with the amount of pigment in each area.

7. If the pigment in the target is grey after 20 minutes, but the normal skin looks unaffected (not red, white or grey), it is safe to proceed with the treatment.

8. If the normal skin is discolored, turn the energy down 1-2 joules and do a second test patch and wait another 10 minutes.

9. Repeat the test patches until the goal is reached (grey pigment in the target and no change to the normal skin), then proceed with the treatment.

10. If there is no reaction in the target, increase the fluence by 1-2 joule until the target is grey and the normal is unaffected.
11. If you are ever performing treatment and start to see delayed red rectangles the size of the crystal, you are using too much energy.

12. The test patches are similar for vascular lesions, except that the vascular lesion should blanch or turn to purpura (vessel only) and the normal skin should be unaffected. Decrease or increase the fluence until this goal is reached. Wait 10 minutes in between each test patch.

13. Use a DermaPop to cool the skin before each pulse of light when doing the treatment.

14. Note: presets on most IPLs only get you started in the ballpark. They are not universally safe or effective for individual patients, so knowing how to read a test patch is critical to be both safe and effective. If you know how to do this correctly, you can do safe treatment with any IPL from any company.