

### **What is Laser Photocoagulation?**

A laser is a powerful beam of light that, combined with ophthalmic equipment and lenses, can be focused on the retina. All lasers cause a certain amount of controlled damage in order to elicit the desired effect. Small bursts of the laser can be used to seal leaky blood vessels, destroy abnormal blood vessels, seal retinal tears, and destroy abnormal tissue in the back of the eye.

Laser photocoagulation is a type of laser treatment performed in the office that usually requires no anesthesia other than an eye drop. The procedure may take a few minutes, or can last up to half an hour, depending on the type of treatment needed. Most patients do not require a patch or medications following retinal laser, and can resume normal activities immediately.

### **What is Micropulse or Subthreshold laser therapy?**

Micropulse or subthreshold laser therapy is a tissue-sparing solution for the treatment of retinal diseases and glaucoma. With this laser modality continuous laser beam, the one used in laser photocoagulation, chopped into a train of short, low energy pulses separated by a brief rest period. With this rest period tissue can cooldown between laser pulses. Which allows the tissue to cool between laser pulses. This way surgeon can get the desired effect of laser and don't get any tissue damage.

Micropulse laser treatment uses extend the traditional laser photocoagulation. Because it doesn't damage retinal tissue it can be used directly over macula if needed which is responsible for most of the eyesight of the patient.

Diabetic macular edema, central serous retinopathy and glaucoma are areas where MicroPulse laser therapy can be utilized. In diabetic macular edema with micropulse laser therapy in select patient therapy can reduce or eliminate the need for intravitreal injections. Micropulse laser therapy one of the few effective treatment in central serous retinopathy and can get patient in his or her routine life quickly. In select glaucoma patients this therapy can be used to reduce or eliminate the need for glaucoma patients.

### **Where are with this therapy?**

We have a lot of experience with Micropulse laser therapy in Health Sciences University, Fatih Sultan Mehmet Training and Research Hospital, Department Of Ophthalmology in İstanbul. We are the only state hospital that can utilize this therapy for many years. Thus even though micropulse laser is relatively new therapy modality we have a lot of experience with it and lot of patients treated with this therapy. We are routinely using it in our retina and glaucoma clinics with success, which can we demonstrated by the obvious trust of our patients.