

Thermo-mechanical effect of biological tissues laser modification.

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Laser-induced thermo-mechanical effect is a basis of new methods for laser modification of the biological tissue structure.

Thermo-mechanical effect can be useful in normalizing intraocular pressure in correction of refraction [1], treatment of glaucoma [2], and cataract, laser reshaping of rib cartilage for larynx stenosis surgery [3] and for regeneration processes [4].

The theoretical model of thermo-mechanical stresses in biological tissues during laser heating and the study of the ratio of the stress tensor components can be used as the basis for explaining the therapeutic effect of some new laser methods.

References

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