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Laser Photo Therapy in Dentistry



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Dental indications

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Point and area applicators and elastic optical fibers

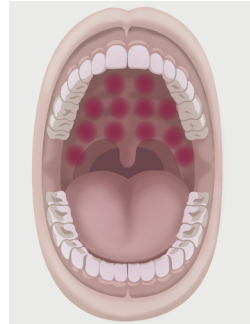
Laser therapy can be applied selectively with the aid of point applicators (one laser diode) or areawise with the aid of area lasers (a number of laser diodes). Three types of lasers are available for applications in dentistry:

Point applicators

Intraorally one works with point applicators (lasers with only one diode/laser outlet opening). From the outside you can work with spot applicators as well as with area lasers.

In order to supply larger areas, the spot applicator is placed at intervals of approximately one cm on the tissue surface.

Example: Spot treatment of the upper palate

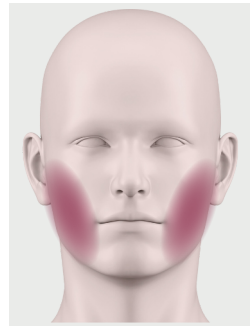


Area lasers

Area lasers facilitate treatment from the outside, as they can supply larger areas with the aid of several laser diodes.

If the surface laser is fixed, it is important to ensure that it is perpendicular to the target tissue. In the case of curved surfaces, readjustment may be necessary to ensure an even supply of the tissue.

Example: Flat treatment of the cheek

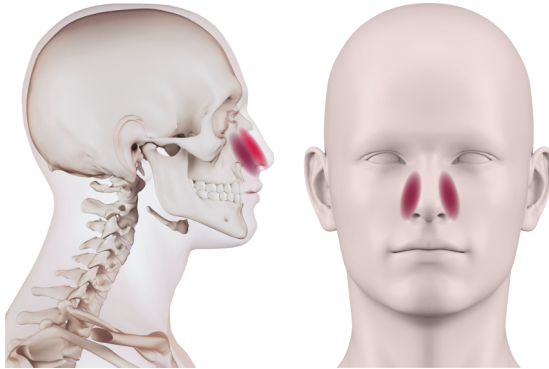


Elastic optical fibres

Elastic light guides are more flexible than point applicators. They are mounted on a point applicator and can be inserted into pockets and bone cavities.

Allergy/Pollinosis/Colds

Allergy/Pollinosis/Colds			
Area	Wavelength	Energy/point	Treatments
nasal cavity	R or IR	1-2 J	by occasion
nostrils	R or IR	2-3 J	



Technique

For the mucous membrane inside the nose one needs only small energies, for the treatment from the outside via the nostrils higher energies are needed.

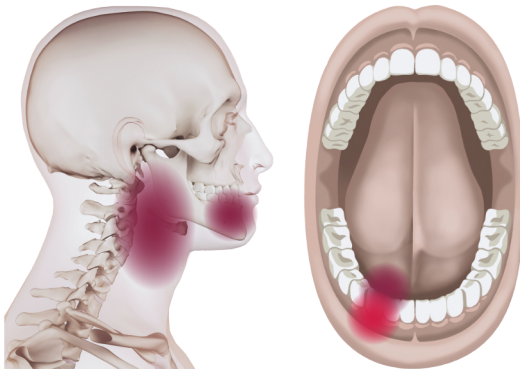
Notes

Occasionally, a very brief "initial deterioration" may occur: Increased blood flow and the stimulation of the removal of mucus can lead to the feeling of an increase in breathing difficulties through the nose. However, this experience is quickly replaced by a feeling of relief.



Endodontics

Endodontics			
Area	Wavelength	Energy/point	Treatments
over the root (after canal treatment)	R oder IR	4-6 J	1-3
adjacent bone tissue lingual and buccal	IR	2-3 J	1-3
from outside (edema prophylaxis)	IR	6 J	concomitantly



Technique

- Red is recommended for pulp cupping or pulpotomy. After the root canal treatment, irradiation is carried out over the canal.
- It is recommended to irradiate the canal with a light guide.
- A combination of endodontic canal treatment (light guide) and external treatment is recommended.

Notes

Also after an endodontological treatment (filling of the canals) complaints can occur. Laser treatment can also be used in this case.