



Lesson 8

Which laser should I use?

The wavelengths

Red for superficial structures

Infrared for deep structures

There is no "takes-it-all wavelength"

The power

Rough estimations:

50-200+ mW for mucosa, wounds, small joints, herpes, etc.

300-500+ mW for muscles, large joints, pain inhibition.

Battery or cables?

Battery operated lasers are convenient, but the power changes with the loading state of the battery.

Stationary lasers better with AC input.
But who likes cables?

Power meter

Diodes also grow old.

And is the power really the one stated in the manual?

Therefore, a power meter should be integrated into the device or supplied as a separate unit.

Class 3B or Class (4)IV?

- The difference between these classes is solely based upon the risk for eye damage and not upon clinical performance. Thus, 499 mW is 3B, 501 mW is IV.
- Class IV, if large apertures are used, are useful for treating very large areas, especially in physiotherapy. Needs irradiation from a distance, unless the probe is kept in motion and/or cooling is added.
- Class IV manufacturers too often make an unjustified point about the "Class IV", as being superior to "low power" laser.

Home care lasers

The patient often needs several sessions of PBM but time and money may be an obstacle.

Therefore, home care lasers can be very useful.

The practitioner can give them as a temporary loan until the next scheduled session (“precription device”).

Home care lasers and LEDs are also recommended as a normal “household” device for several indications.

Conclusion

Before buying a PBM device, spend some time on studies. Books, videos, lectures, speaking to colleagues

Sources of knowledge:

Handbook of Low Level Laser Therapy. Hamblin MR, Agrawal T, de Sousa M, eds. (2016). Taylor & Francis. ISBN: 978-1-118-27502-3.

Lasers in Dentistry – Guide for Clinical Practice. Moreira de Freitas P, Simões A, eds. Wiley-Blackwell (2015). ISBN: 978-1-118-27502-3.

Laser phototherapy – clinical practice and scientific background. Hode L, Tunér J. (2014). www.lasertherapybooks.com. ISBN 978-91-976478-5-4.

Handbook of Photomedicine. Hamblin MR, Huang Y-Y eds. (2013). CRC Press. ISBN 13:978-1-4398-8469-0.

Laser PhotoTherapy in Dentistry. Tunér J, Fritsch T. (2018). Fuchtenbusch Publishing. ISBN 978-3-9819466-5-9.