

Shining Light on Concussion (Cold Laser Applications)

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Hour 1

- Learn how brain cells produce energy
- Review the history of photobiomodulation
- Explore cellular mechanisms of light therapy
- Identify the components of photobiomodulation

Hour 2

- Calculate exposure for appropriate dose-response
- Review possible effects of photobiomodulation
- Identify a clinical workflow implementing photobiomodulation
- Perform a demonstration of photobiomodulation

Course References:

H. Chung, T. Dai, S.K. Sharma, Y.Y. Huang, J.D. Carroll, M.R. Hamblin
The nuts and bolts of low-level laser (light) therapy
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Transcranial infrared laser stimulation produces beneficial cognitive and emotional effects in humans
Neuroscience, 230 (2013), pp. 13-23

L.D. Morries, P. Cassano, T.A. Henderson
Treatments for traumatic brain injury with emphasis on transcranial near-infrared laser phototherapy
Neuropsychiatr. Dis. Treat., 11 (2015), pp. 2159-2175

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Dose-Response, 9 (2011), pp. 602-618