

Flex Therapist CEUs

Breast Cancer Lymphedema: Effects of Low Level Laser Therapy

1. How does BCRL have a significant impact on breast cancer survivors?

- A. Declined physical function
 - B. Increased disability
 - C. Significantly raises rate of mortality
 - D. BCRL impacts breast cancer survivors through declined physical function and increased disability, which negatively affects quality of life
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2. LLLT is a non-invasive form of phototherapy that utilizes wavelengths of light between _____ to deliver low irradiance and doses to the target tissue.

- A. 380 and 650 nm
 - B. 650 and 1000 nm
 - C. 1000 and 1250 nm
 - D. 1250 and 1600 nm
-

3. Low level laser therapy has been reported to be a safe technique.

- A. True
 - B. False
-

4. The effects of LLLT are the result of primary reactions involving absorption of specific wavelengths of light by components of:

- A. The mitochondrial respiratory chain
 - B. Glycolysis
 - C. The Citric Acid Cycle / Krebs Cycle
 - D. Niacin and riboflavin containing molecules
-

5. The primary reactions involving absorption of specific wavelengths of light stimulate a cascade of secondary reactions at the cellular level involving intracellular signaling and leading to:

- A. Nitric oxide production
- B. Down-regulation of ATP
- C. Decreased metabolism

D. Decreased reactive oxygen species

6. Based upon the best evidence synthesis, the current review provides STRONG evidence favoring LLLT over sham in terms of _____ at short-term follow-up.

- A. Increasing shoulder mobility**
 - B. Increasing hand grip strength**
 - C. Reduction in limb edema**
 - D. Reduction in pain**
-

7. Based upon the best evidence synthesis, the current review provides MODERATE evidence favoring LLLT over sham for short-term:

- A. Shoulder mobility**
 - B. Hand grip strength**
 - C. Reduction in limb edema**
 - D. Pain relief**
-

8. The current review provides limited evidence favoring LLLT over no treatment for decreasing limb swelling at a short-term follow-up.

- A. True**
 - B. False**
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9. This review found conflicting evidence regarding the effectiveness of LLLT on limb circumference and pain intensity over which conventional treatment?

- A. Manual lymphatic drainage**
 - B. Pneumatic compression therapy**
 - C. Compression bandage**
 - D. This review found conflicting evidence regarding the effectiveness of LLLT on limb circumference and pain intensity over manual lymphatic drainage, pneumatic compression therapy, and compression bandage**
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10. A separate systematic review evaluating a series of conservative therapies has demonstrated that LLLT yielded a similar percentage of volume reductions to:

- A. Manual lymphatic drainage**
 - B. Remedial exercises**
 - C. Compression garment or bandage**
 - D. All of the above**
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11. Wavelengths above 905 nm have been most commonly employed to date.

- A. True**
 - B. False**
-

12. A minimum of 8 weeks of LLLT is required to provide noticeable benefits.

- A. True**
 - B. False**
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