Flex Therapist CEUs

Cardiac Rehab Effects of Heat and Cold

1. HF is a systematic process where a patient's heart becomes unable to produce an equilibrium between the oxygenated blood delivered and the basal metabolism demands of the patient's organs.

A. True
B. False

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2. In clinical settings, the major objective of thermotherapy is to:

A. Produce an equilibrium between the oxygenated blood delivered and the basal metabolism demands of the patient's organs.
B. Achieve an effective treatment outcome with minimal impact on intervening and surrounding tissues.
C. Decrease the risk factors associated with HF.
D. Change the cutaneous, intra-articular, and core temperatures of soft tissue.

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3. A 1-degree Celsius increase in tissue temperature is associated with a _____% increase in local tissue metabolism.

A. 2 - 5
B. 5 - 10
C. 10 - 15
D. 15 - 25

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4. What is the primary physiological effect of heat?

A. Vasodilation and increased blood flow
B. Relaxation of muscle spasm
C. Pain relief via the gate-control mechanism and reduced ischemia
D. All of the above

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5. When could thermotherapy be dangerous?

A. When a patient has a spinal cord injury.
B. When a patient is on dialysis.
C. When a patient is undergoing cancer treatment.
D. Thermotherapy is always safe.

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6. It has been found that increased frequency of sauna bathing is associated with a reduced risk of:

A. Sudden cardiac death
B. Fatal coronary heart disease
C. Fatal cardiovascular disease
D. All of the above

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7. The most important physiological response induced by diathermy is:

A. Relief of pain and muscle spasm.
B. The regional increase in blood flow and a proliferation of nutrients and oxygen in the heated region.
C. Decreased cardiac size on the echocardiogram and chest X-ray.
D. All of the above.

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8. The therapeutic effect of cold generally occurs through the actions on which process?

A. Metabolic
B. Neuromuscular
C. Hemodynamic
D. All of the above

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9. When the body is subjected to a cold element:

A. Blood vessels constrict, driving blood to the body's core, and bringing nutrients to the organs.
B. Blood vessels dilate and nutrient rich blood is able to flow throughout the body.
C. Both (A) and (B).
D. None of the above.

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10. Which bioheat transfer model represents thermal changes in a human body close to reality?

A. The lumped model
B. The segmented model
C. The three-dimensional model
D. None of the above
