

ZOHRA ABBAS

(13823)

DPT - 6th

"PHA. Agents"

"A"

Blanks:

- | | |
|--------------------------|-----------------------|
| 1, (B) (hygiene) | 14) E (non of them) |
| 2, C (Hot water) | 15) C (Pascal) |
| 3, C (convection) | 16) C (Mild heating) |
| 4, D (25 times) | 17) D (PGT) |
| 5, C (Buoyancy) | 18) C (whirlpool) |
| 6, B (Two 10min on) | 19) D (both A & B) |
| 7, C (750nm - 400000nm) | 20) B (Coplaner) |
| 8, A (Infra red) | 21) D (Both A & B) |
| 9, A (luminous) | 22) A (visible light) |
| 10, D (non of above) | 23) B (5cm) |
| 11, D (50 - 75cm) | 24) C (Uv A) |
| 12, C (0.87 - 0.97) | 25) D (IR) |
| 13, D (10 - 15 min) | 26) C (0.8mm) |

26) C (0.8mm)

27) D (Depend ... condition)

28) C (Osteoporosis)

29) A (Traction)

30) D (none)

31) C (Uv-B)

32) B (Cold receptor[↑] ... than warm)

33) B (Ant horn cell)

34) C (24-48 hr.)

35) D (none)

36) A (Ice)

A: Musculoskeletal Effects

Hydro-therapy is also known as "Hydrotherapy" which have several beneficial effects in which one is on MSK.

• Pain, muscle spasm, sensitivity of joints towards load, degenerative changes are most prominent features of MSK problem which can be treated with hydrotherapy.

→ In hydrotherapy full body / part is immersed into warm water this causes relaxation of muscle helping in reduction of pain.

→ due to hydrostatic property of water when an edematous part is immersed it applies force in all directions due to which blood moves to center from the peripheries → renal function enhances → excessive excretion → ↓ edema (inflammation)

→ Buoyancy property of water help in the reduction of load from the sensitive joints due to which movement is possible for obese & patients with weak joints.

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→ Due to immobilization or after an injury degenerative changes takes place in peri-articular cartilages, by applying hydrotherapy (warm water), increases the extensibility of muscle collagen, decreases viscosity so \uparrow in blood flows takes place, see more blood, nutrients & O_2 to compromised tissue helps in reversing the degenerative changes occurring in MSK.

↳ B)

Cardiovascular effect:

→ As we know heart is a vital organ of body and any abnormality it it can lead to many difficulties -

→ One of the most common problem of elderly patients are CVS problem, over all body's muscle activity decreases due to which they are unable to perform different activities and heart gets overloaded.

→ When body is immersed in warm water so it causes the relaxation of muscle moreover due to hydrostatic pressure blood moves ^{Proximally} distally to wards center, blood increases in heart i.e. cardiac volume increases.

↳ warm water causes peripheral vasodilatation &

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reduction (systemic vascular resistance)

→ As a result of increased blood → adequate amount of O_2 & nutrients will be supplied to compromised parts of body, Cardiac output also increases as a result heart will perform its function or its function is restored.

→ Risk of injury is also ↓ in water than that of land.

↳ C Respiratory effect:

evidence have shown that exercising in aquatic environment increases 60% of respiratory function, it is bcz it increases the strength & endurance of respiratory muscles.

→ when a person is immersed in water, as explained above his/hor Cardiac volume ↑, secondly due to its hydrostatic property a pressure is exerted on the chest torso which resist in chest expansion due to which lung will work more efficiently to breathe more and in this way function can be restored so hydrotherapy can be used as a rehabilitation for Pts with respiratory dysfunction.

→ Secondly "Air induced asthmatic patients are also benefited from hydrotherapy bcz there is no humidity and patterns in water which triggers the symptoms.

→ But if a patient's ^{lung is} highly affected see they shouldn't be exposed to water for longer period of time.