

THERAPEUTIC MODALITIES IN INJURY TREATMENT



CRYOTHERAPY: Reduces blood flow and decreases metabolic demand, while also reducing pain and inflammation. Cold therapy is used immediately following acute injury or surgery, and on-going, on an as-needed basis.



RAPID CONTRAST THERAPY (RCT): Increases blood flow to an injured area without causing the accumulation of additional edema (swelling). Helps decrease nerve sensitivity to reduce pain.



THERMOTHERAPY: Increases circulation to the injured area to promote healing, while reducing pain and stiffness. Heat therapy is used after the initial inflammatory response caused by an injury begins to diminish.



INTERMITTENT PNEUMATIC COMPRESSION THERAPY (IPC): The addition of active compression to cold and heat therapy delivery works to improve body surface contact and assure more effective treatment.

POTENTIAL TREATMENT SCENARIOS

4 PHASES OF HEALING

DEVELOPED IN COLLABORATION WITH JASON MCWILLIAMS, AT, MS, ATC.

ALL PROTOCOLS SUBJECT TO PROVIDER/PATIENT ACCESS TO THE DEVICE AND PROVIDER DISCRETION.

1

INITIAL
ACUTE

INJURY – DAY 2

CLINICAL PICTURE

Swelling, pain to touch and with motion, decreased ROM at affected joint.

GOAL

Reduce swelling and pain, improve ROM and muscle activation.

MODALITY



EXAMPLE PROTOCOL

Cryotherapy with compression as tolerated. 30-minute treatment times.

2

INFLAMMATORY
RESPONSE

AS EARLY AS DAY 1 – DAY 6

CLINICAL PICTURE

Swelling subsiding, pain to touch and with motion, decreased ROM at affected joint, warmth to touch.

GOAL

Reduce swelling and pain, improve ROM and muscle activation.

MODALITY



EXAMPLE PROTOCOL

Cryotherapy with compression as tolerated. 30-minute treatment times.

3

FIBROBLASTIC
REPAIR

AS EARLY AS DAY 3 – SEVERAL WEEKS

CLINICAL PICTURE

Swelling subsiding, pain to touch and with motion, increased ROM at affected joint and improved muscle activation.

GOAL

Reduce pain, normalize ROM, increase muscle activation, mildly increase circulation and facilitate lymphatic flow.

MODALITY



EXAMPLE PROTOCOL

Cryotherapy with high compression as tolerated, with 30-minute treatment times. Thermotherapy prior to exercise or workout for 15 minutes with compression at low as tolerated. Rapid Contrast Therapy starting with 4 minutes of thermotherapy with low compression as tolerated, followed by 1 minute of cryotherapy with compression as tolerated, for total duration of 30 minutes.

4

MATURATION

AS EARLY AS DAY 7 – RECOVERY

CLINICAL PICTURE

Swelling, decreased or no pain to touch or with motion.

GOAL

Return to normal activity.

MODALITY



EXAMPLE PROTOCOL

Cryotherapy with compression as tolerated for pain and inflammation control as needed. Thermotherapy as needed prior to workout or exercise. Rapid Contrast Therapy as needed starting with 4 minutes of thermotherapy with low compression as tolerated, followed by 1 minute of cryotherapy with compression as tolerated, for total duration of 30 minutes.

Patient treatment protocols for use of the Med4 Elite system are the decision of the individual healthcare practitioner. The protocols herein are provided for information purposes only and neither CoolSystems, Inc. nor Jason McWilliams, AT accepts any responsibility for any adverse effects specifically as a result of these protocols. Refer to Contraindications and General Warnings and Cautions in the Med4 Elite User Manual and the Wrap Use Guides for further information.