



Understanding Modalities: Definitions, Applications, and Their Importance

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Agenda Overview

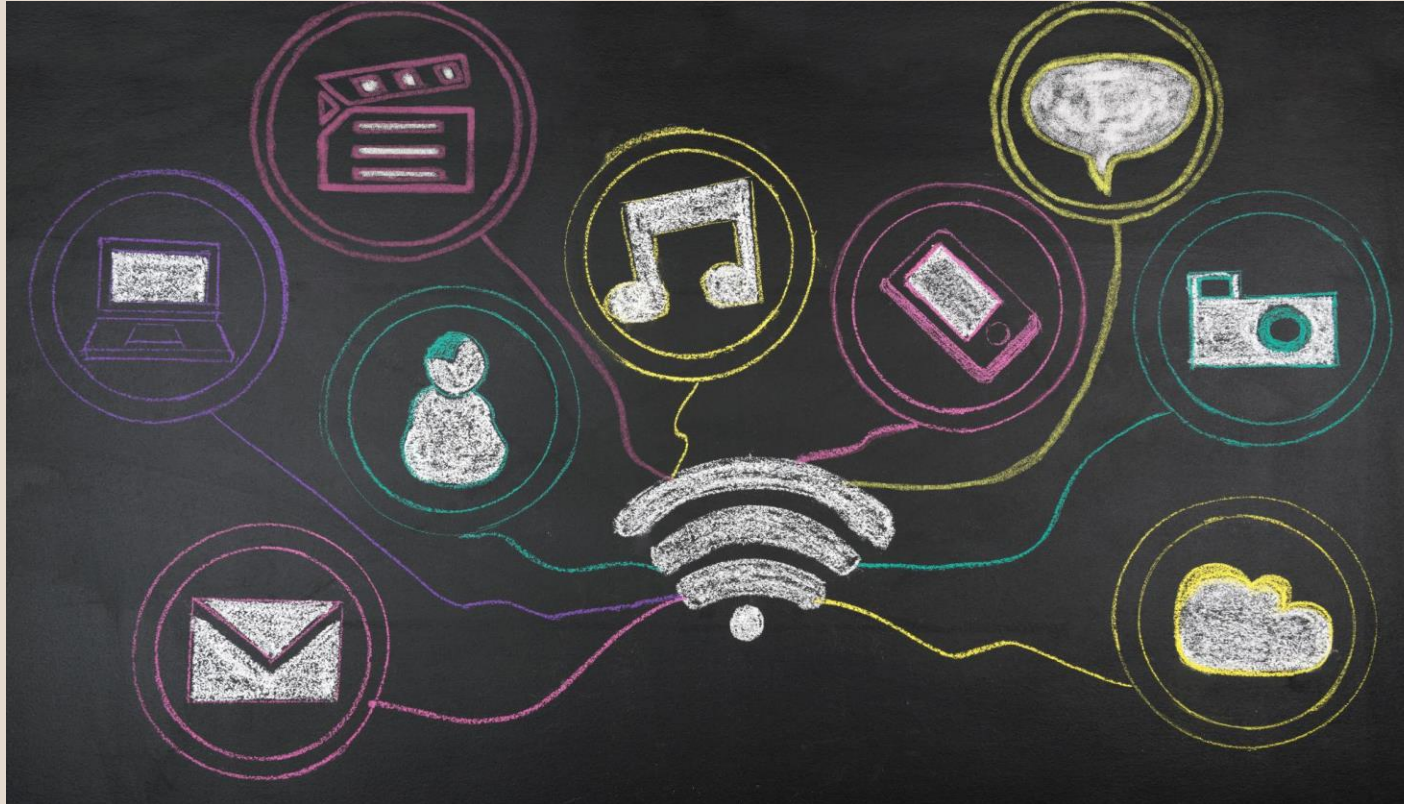
- DEFINING MODALITIES
 - COMMON TYPES OF MODALITIES IN PHYSICAL THERAPY
- WHEN MODALITIES ARE USED
- WHY MODALITIES ARE IMPORTANT



Defining Modalities

DIFFERENT TYPES OF TREATMENT EQUIPMENT TO OPTIMIZE TREATMENT

Explanation of the Term 'Modality'



Definition of Modality

Modality means the mode or manner in which something exists or is experienced in various contexts.

Information Delivery

Modality describes the methods or channels through which information is delivered and understood.

Types of Modalities: Medical

Medical modalities include physical therapies, surgeries, injections etc.



Medical Modalities: Treatment Methods and Techniques

Physical Therapy

Physical therapy uses exercises and techniques to improve mobility and rehabilitate injuries.

Surgical Treatment

Surgery involves operative procedures to treat injuries or diseases requiring medical intervention.

Medication Use

Medication involves drugs prescribed to manage or cure various medical conditions.

Alternative Therapies

Alternative therapies include non-conventional treatments like acupuncture or herbal remedies.



Common Types of Modalities in Physical Therapy

- BIOFEEDBACK
- CUPPING
- DRY NEEDLING
- ELECTRICAL STIMULATION
- INSTRUMENT ASSISTED SOFT TISSUE MOBILIZATION
- TRACTION



BIOFEEDBACK

-DIRECT

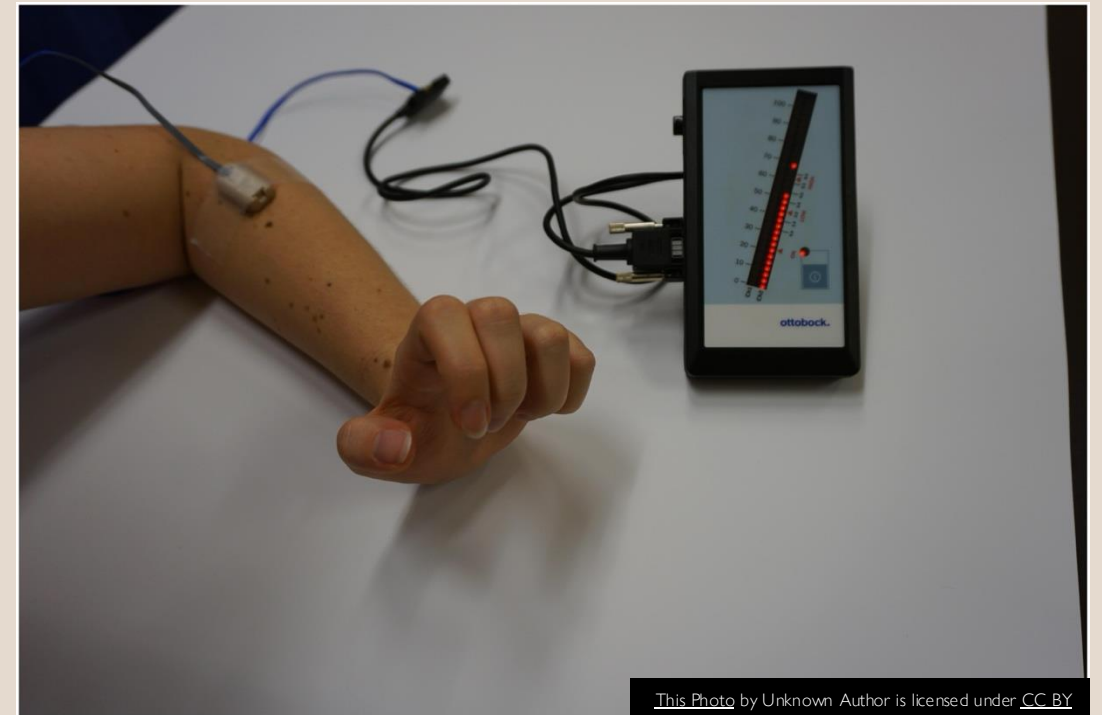
ATTACHED TO SKIN – NEEDLE/PATCH

-INDIRECT

FEEDBACK BASED – WEARABLES, Wii,
BALANCE BELT etc.

BIOFEEDBACK — MUSCLE ACTIVATION

- CAN BE USED TO TARGET SPECIFIC MUSCLE MOTOR POINTS
 - DROP FOOT (NERVE ROOT IMPINGEMENT)
 - WRIST TENDINITIS/EXTENSION
 - DROP ARM (STROKE)



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BIOFEEDBACK

USE OF DEVICES TO PROVIDE PHYSIOLOGICAL
FEEDBACK TO RELAX MUSCLES, INCREASE SKIN
TEMPERATURE, DECREASE SYMPATHETIC
RESPONSE



WHEN TO ADD BIOFEEDBACK?

- 1 WHEN PATIENT HAS HAD NERVE DAMAGE
- 2 WHEN PATIENT IS UNABLE TO REGULATE SYMPATHETIC SYSTEM
- 3 PERFORMANCE – PATIENT ABLE TO RECRUIT SPECIFIC MUSCLES
TO TARGET ANTAGONISTS TO MAXIMIZE RELAXATION
- 4 WHEN A PATIENT NEEDS VISUAL OR SENSORY FEEDBACK TO ADJUST
MUSCLE ACTIVATION

WHY ADD BIOFEEDBACK?

- 1 TO IMPROVE MUSCLE ACTIVATION
- 2 TO DECREASE SYMPATHETIC ACTIVATION
- 3 TO RETRAIN SENSITIVITY RECEPTORS – CRPS
- TO GIVE VISUAL AND TACTILE SENSORY FEEDBACK

CUPPING

3 TYPES

- Silicone – scar tissue mobilization/increase circulation
- Suction assist – increase circulation to specific muscles/area
- Gas – hard cupping. Gas increases circulation pull for performance



Benefits of Cupping Therapy



Improved Blood Circulation

Cupping therapy is thought to enhance local blood flow, which promotes healing and rejuvenation of tissues.

Muscle Tension Relief

Many people seek cupping to reduce muscle tension, particularly in the back and shoulders, for comfort and flexibility.

Pain and Inflammation Reduction

Cupping may help relieve pain and decrease inflammation, supporting overall well-being and physical comfort.

Relaxation and Stress Support

Cupping therapy can promote deep relaxation, making it a popular complementary treatment for reducing stress.

WHEN TO ADD CUPPING

- POST OP – SCAR TISSUE REMODELING
- PERFORMANCE
- EARLY IN HEALING PROCESS FROM INJURY

WHY ADD CUPPING?

- 01 DECREASE TISSUE SENSITIVITY
- 02 INCREASE CIRCULATION
- 03 IMPROVE MULTI-LAYER SKIN MOBILITY TO
IMPROVE SCAR TISSUE RE-MODELING
- 04 IMPROVE PERFORMANCE BY “TURNING ON”
SPECIFIC MUSCLE GROUPS

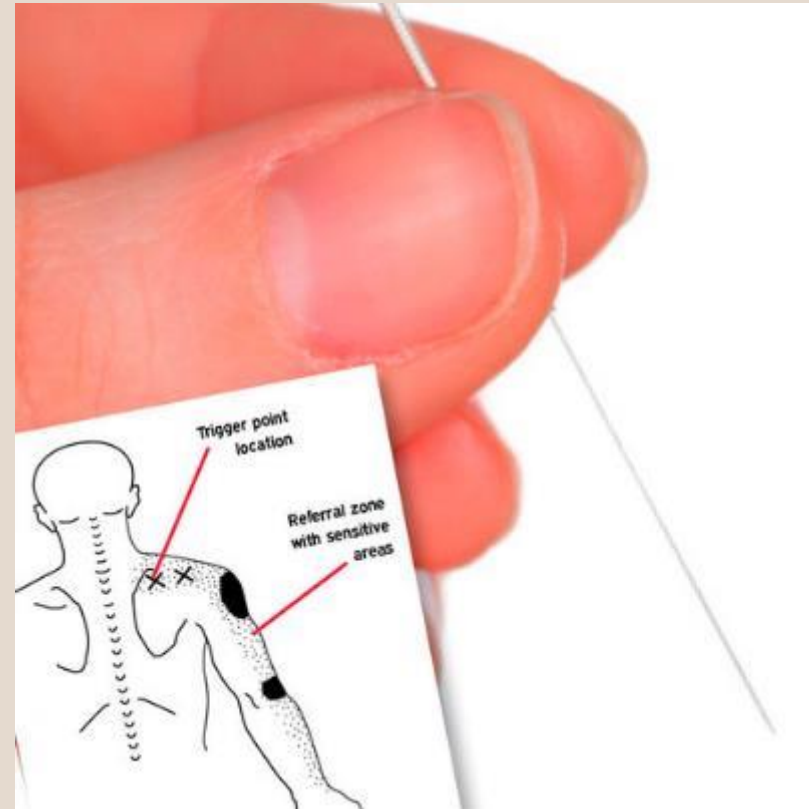
DRY NEEDLING

TRIGGER POINT DRY NEEDLING

- IS AN INVASIVE PROCEDURE WHERE A FINE NEEDLE (ACUPUNCTURE) IS INSERTED INTO THE SKIN AND MUSCLE
- IT IS AIMED AT MYOFASCIAL TRIGGER POINTS - HYPERIRRITABLE SPOTS IN SKELETAL MUSCLE THAT ARE ASSOCIATED WITH A HYPERSENSITIVE PALPABLE NODULE IN A TAUT BAND
- “DRY” – REFERS TO FACT THAT NO FLUID/LIQUID/DRUG IS INJECTED

DRY NEEDLING

- FOCUSSED ON TREATING SKELETAL MUSCLES
 - ESPECIALLY INTRAMUSCULAR “TRIGGER POINTS”
 - TRIGGER POINTS
 - HYPERSENSITIVE SPOT
 - PALPABLE TAUT BAND
 - HYPOXIC NODULE



WHEN TO USE DRY NEEDLING

- CHRONIC PAIN/CONDITION
- MIGRAINES
- SPORTS INJURY –EXTENDED HEALING
- POST-SURGICALLY – RESET MECHANORECEPTORS
- WHEN NOT
- RANDOM/GLOBAL PAIN
- UNABLE TO TARGET SPECIFIC TP
- ON BLOOD THINNERS
- OVER LUNG REGIONS



WHY USE DRY NEEDLING

- ONE OF FEW MODALITIES IN PT THAT IS DIRECT IN TERMS OF TARGETING SPECIFIC MUSCLES IDENTIFIED IN EXAM
- HELPS RESET MECHANORECEPTORS AND SYMPATHETIC SYSTEM RESPONSE
- SPECIFIC – SHOULD NOTICE BENEFIT OR NOT IN 2-4 VISITS.



ELECTRICAL STIMULATION

Most common choices:

- PRE-MOD. SETTING – ONE PAIR OF ELECTRODES
- INTERFERENTIAL – TWO PAIRS OF ELECTRODES – SURROUND AREA
- RUSSIAN – ONE PAIR – TP OF MUSCLE TARGETED AND GROUND
- OFTEN COMBINED WITH HEAT OR ICE



WHEN TO USE ELECTRICAL STIMULATION?

- POST SURGICALLY TO MANAGE INFLAMMATION
 - COLD
- POST SURGICALLY TO INCREASE CIRCULATION
 - HEAT
- TO STIMULATE MOTOR POINTS OF DAMAGED NERVES TO INCREASE/RELEARN MUSCLE ACTIVATION

WHY TO USE ELECTRICAL STIMULATION?

- HELPS TO MANAGE PAIN/INFLAMMATION FLARES AS PATIENT PARTICIPATES IN PT
- IMPROVES HEALING PROCESS
- IMPROVES SPECIFIC MUSCLE ACTIVATION

INSTRUMENT ASSISTED SOFT TISSUE MOBILIZATION

- USE OF “TOOLS” TO ELONGATE TISSUE OR BREAK UP SCAR TISSUE
- EITHER ALONG FASCIAL OR MUSCULO-TENDINOUS BANDS OR “STRUMMING” ACROSS RESTRICTIVE SCAR TISSUE
- DIFFERENT SIZE/SHAPE TOOLS FOR DIFFERENT AREAS



WHEN TO USE IASTM?

- TENDINOPATHIES
- SCAR TISSUE AT ORIGIN OR INSERTION
- BREAK UP SCAR TISSUE
- PLANTAR FASCITIS

WHY TO USE IASTM?

- DIRECT “REMODELING” OF TISSUE AT ORIGIN, INSERTION OR MUSCULOTENDINOUS JUNCTION
- INCREASE CIRCULATION TO REGION
- BREAK UP SCAR TISSUE FORMATION, ELONGATE TISSUE
- SENSITIVITY DICTATES APPLICATION

TRACTION/DECOMPRESSION

- USED TO TREAT LUMBAR AND CERVICAL CONDITIONS
- STENOSIS
- DISC CENTRALIZATION
- DECOMPRESSION OF FACETS
- NERVE ROOT COMPRESSION



WHEN TO USE LUMBAR OR CERVICAL TRACTION?

- LUMBAR AND CERVICAL STENOSIS
 - LUMBAR AND CERVICAL FACET IRRITATION
 - LUMBAR AND CERVICAL DISC PROTRUSIONS
 - LUMBAR AND CERVICAL NERVE COMPRESSION
-
- POST HANDS ON RX

WHY USE TRACTION?

- POST RX TO:
 - DECOMPRESS FACETS
 - DECOMPRESS COMPRESSED NERVES
 - CENTRALIZE DISC AGGRAVATIONS
 - DECOMPRESS DURAL SLEEVE
- SHOULD BE CLOSELY MONITORED BECAUSE IT CAN FLARE AGGRAVATED NERVES AND MUSCLE SPASM

Factors Influencing the Choice of Modality

Effectiveness

The modality chosen must deliver the desired results efficiently and meet the intended goals.

Accessibility

Modalities must be accessible to users, considering availability and ease of use.

Individual Preferences

Personal preferences influence modality choice to enhance engagement and satisfaction.

Contextual Factors

Context and environment play a vital role in determining the most suitable modality.



MODALITIES – BIG PICTURE

- IMPROVE EFFECTIVENESS OF CARE
- CONTROL INFLAMMATION
- INCREASE CIRCULATION
- RETRAIN MUSCLES
- DESENSITIZE IRRITATED NERVES
- DECOMPRESS IRRITATED STRUCTURES

- PASSIVE MODALITIES BUY TIME FOR DIRECT MODALITIES TO HAVE EFFECT





Why Modalities Are Important

Improving Effectiveness in Treatment and Education

Selecting Appropriate Modalities

Choosing the right therapeutic or educational approaches enhances engagement and success in treatment and learning.

Increased Effectiveness

Effective modality selection leads to improved outcomes in both therapy and educational settings.



Tailoring Approaches to Individual Needs



Customization Through Modalities

Modalities enable adapting approaches to fit individual preferences and abilities effectively.

Inclusive Education and Treatment

Tailored methods enhance inclusivity and impact in education and treatment by respecting unique needs.



CONCLUSION

IMPORTANCE OF MODALITIES

Modalities serve as essential tools in physical therapy to optimize recovery.

ENHANCING PERSONALIZATION

Proper application of modalities enables personalized care and tailored learning experiences.

EFFECTIVE LEARNING AND CARE

Right modality use facilitates successful education and treatment outcomes that supplement direct/active physical therapy treatments