Non- Swedish Technique

Dr Manju Setia Khowal
RMT, BAMS

What Are Non-Swedish Techniques?

Non-Swedish techniques include:

- Advanced soft tissue techniques
- Specific therapeutic methods
- Deeper structural approaches
- Neuromuscular & fascial techniques
- Joint mobilization methods
- These techniques are **more specific and corrective** compared to general Swedish massage.

What is Diaphragm?

The Diaphragm is a Dome shaped muscle that separates:

- Chest cavity (Lungs & Heart) from Abdominal Cavity (Organs)
- It is the main muscle of breathing/ primary muscle of Inspiration
- Second most important muscle of the body next to Heart
- The muscle has three large openings (hiatus) to allow the **Oesophagus, Aorta & Inferior Vena Cava** to pass through it.
- Nerve to this muscle is **Phrenic Nerve (C3,C4,C5)**
- A weak Diaphragm can contribute to Gastroesophageal Reflux Disease (GERD)

Diaphragmatic Breathing

- Also called Belly Breathing. While Inhalation: Abdomen Rises and during Exhalation :Abdomen Falls. This means the Diaphragm is working properly.
- To better understand , ask the client to specific visualisation such as “imagine a ballon in your stomach that you are inflating with your inhalation”
- It is a key part of Every Massage Treatment, It is regularly recommended as self care
- Normal breathing rate is 12-15 times per minute.

Effects: Increases Relaxation

- Increases Lymphatic Flow
- Increases efficiency of Gas Exchange
- Facilitates Stretching Techniques
- Decreases Pain & Stress

Diaphragmatic Breathing

- Is a key part of Every Massage Treatment
- Best way to achieve relaxation and to break the pain cycle
- It is regularly recommended as self care
- Normal breathing rate is 12-15 times per minute.

Manual Lymphatic Drainage

Purpose:

- Enhance lymph flow
- Reduce edema
- Improve immune response
- Decreases Pain Perception
- Decrease SNS firing
- Reduce formation of scar tissue formation done by removal of fibrin from the initial lymphatics.
- Assist in post-surgical recovery
- Lymphatic drainage in case of lymphedema leads to increase in urine output in which concentration of **histamine, corticosteroids, and nor adrenaline**

MLD

- **Axillary Nodal Pumping**
- Gentle rhythmic compression
- Encourages lymph movement
- **Stationary Circles**
- Circular stretch of skin
- No sliding
- **Local Thumb/Web Technique**
- Skin stretch using web between thumb & index
- Used in small areas of swelling

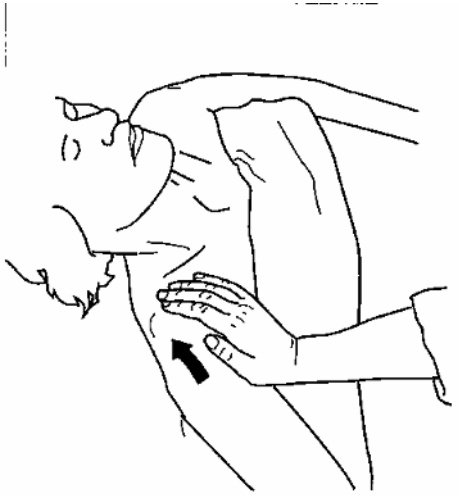

Figure 4.1
Lymphatic drainage techniques: Axillary nodal pumping.

Figure 4.2
Lymphatic drainage techniques: Stationary circles.

Characteristics: Manual Lymphatic Drainage

- **Light Repetitive technique used to pump the lymphatic fluid through lymphatic capillaries.**
- During the technique therapist hands are soft and relaxed.
- Fluid id Directed toward lymph nodes.
- No lubricant is needed, talcum powder is used to facilitate drag.
- Each manipulation must be repeated a minimum of 5-7 times in order to pump the Lymphatic fluid through the tissue.
- The Strokes are **unidirectional.**
- Pressure always applied **Centripetally,** starting at **proximal nodes** and working distally towards the edematous site.
- Even a single limb treatment takes up to 20 min.
- **A pressure of 20-40mm of Hg is used to avoid collapsing the superficial lymphatic capillaries.**

Characteristics: Manual Lymphatic Drainage

- Pressure of more than 60 mm of Hg will compress & temporarily collapse the vessels.
- An average 30 mm of Hg has been found to have greatest effect on moving the lymph.

Effects Of MLD:

- **Reduces Edema**
- **Reduces Pain**
- **Removal of Excess Fibrin & Metabolic products**

Characteristics: Manual Lymphatic Drainage

- In treating Acute, sub acute or chronic edema, **nodal pumping** or compression is applied to the lymphatic nodes of the most proximal part of the limb that has the edematous tissue.
- These nodes are closest to the thoracic & right lymphatic ducts, which return lymph to the venous system.
- In the arm it is axillary lymph nodes ,and in the leg it is inguinal lymph nodes.
- To massage the nodes, palmar surface of the hand is used and pressure is applied In a wave like motion.
- **Stationary Circle:** used to treat larger areas of the limb between the edema and the proximal nodes.
- IMAGE

Contraindication : MLD

- Chronic Heart Failure
- Acute condition Due to bacterial or viral infection
- Recent thrombosis
- Low protein Edema due to kidney pathologies
- Malignancy
- Lymphatic obstruction by parasites.

Static Pressure Techniques

- Golgi Tendon Organ (GTO) release
- The Origin & Insertion Technique
- Muscle Approximation
- Myofascial trigger Point technique
- Cross fibre frictions

Golgi Tendon Organ (GTO) release

- Proprioceptive Nerve Receptors or minute sensory organs
- Located at **musculotendon junction**
- These receptors detect the **load** placed on the tendon.
- GTO is a part of muscle tension monitoring system
- **Alpha motor Neuron firing** maintains the muscle contraction.
- The **GTO i**s able to **slow/ Decrease this alpha motor neuron** firing, causing relaxation of muscle
- The inhibitory effect on muscle contraction is referred to as the lengthening reaction.

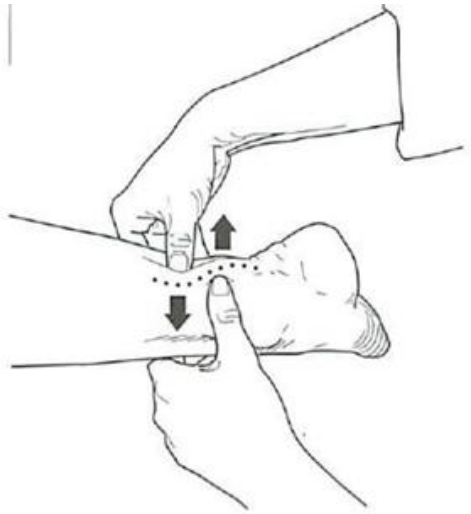

Figure 4.5
Golgi tendon organ release technique: S-bowing to Achilles tendon.

Golgi Tendon Organ (GTO) release

- GTO is part of protective reflex to prevent muscle injury or rupture through relaxation of the muscles, this reflex is activated when an excessive load or stretch is placed on a tendon.
- GTO can be used to reduce **Muscle spasm & tone especially when on site massage** is not possible.
- GTO technique is effective on **Long, Superficial and Easily palpable Tendon**. Example: Achilles Tendon, hamstring tendon at the ischial tuberosity, suboccipital tendon
- It can not be performed on small tendon

How to perform?

- The therapist uses reinforced thumbs or fingers, holding for a minimum of 30 sec or until the muscle relaxes.
- The tendon may also be bowed in to an “s” or “c” shape.
- Rate is slow and pressure is moderate to deep(around two pounds)

Golgi Tendon Organ (GTO) release

Effects:

- Releases Muscle Spasm
- Reduces Muscle Tone

Contraindication:

- Locally painful condition
- Local acute condition affecting tendons to be treated
- Hypotonic or atonic muscles
- Tissue fragility
- Pathologies of connective tissue
- Skin lesions including healing incisions.

Origin & Insertion Technique

Introduction: It is a variation Of GTO

- Origin and Insertion technique is a **specific therapeutic muscle technique,** used when the tendon to be treated is **short.**
- It focuses on treating muscles at their **attachment points**.
- Just like GTO it also inhibits the Alpha motor neuron firing
- It is especially useful :

✓ To reduce muscle spasm **When direct work on muscle is not comfortable.**

✓ To Reduce tone **When direct work on muscle is not comfortable.**

✓ Sports rehabilitation

Origin & Insertion Technique

- The Therapist thoroughly treats the Origin (attachment) of the muscle using either reinforced finger or thumb kneading and make a plus (+)sign on same location.
- The therapist can repeat the technique on the entire origin and also the insertion of the muscle is treated in the same manner.
- The rate is slow and the pressure is moderate to deep.

Effects: Reduces Muscle tone and Spasm

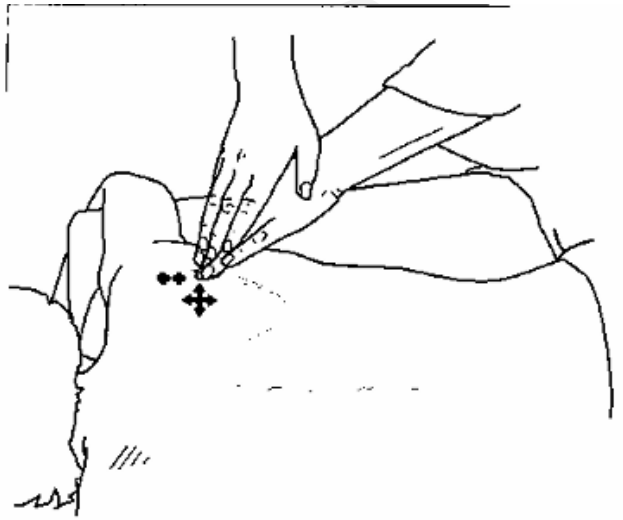

Figure 4.6
Origin and insertion technique to infraspinatus, medial attachment; small plus signs are made along the muscle attachment.

Origin and Insertion

Contraindication:

- Locally painful condition
- Local acute condition affecting tendons to be treated
- Hypotonic or atonic muscles
- Tissue fragility
- Pathologies of connective tissue
- Skin lesions including healing incisions.

Muscle Approximation

- **Muscle spindles** are proprioceptive nerve receptors or Minute Sensory organs located in the **muscle belly**.
- These Nerve receptors monitor **muscle length** & help control muscle movement by detecting the amount of stretch placed on a muscle.
- Muscle spindles protect the muscle from being **overstretched.**
- **This technique reduces the gamma firing.**

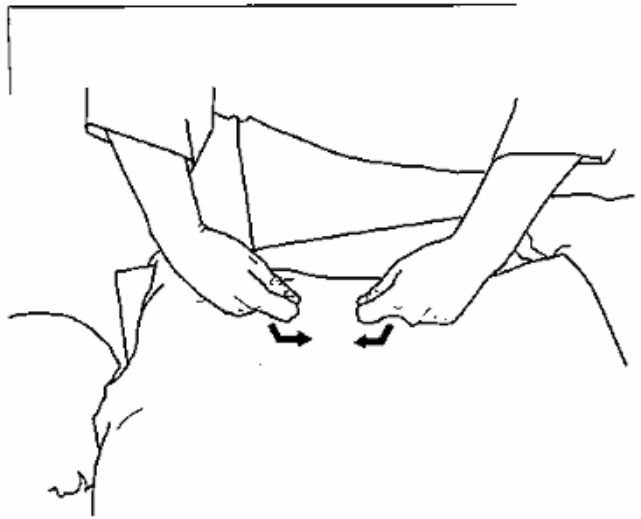

Figure 4.7
Muscle approximation to erector spinae; compressing the attachments of the muscles onto the bony structures below.

Muscle Approximation

- The muscle attachments are gently moved closer together.
- The tissue is compressed toward its center
- The position is held briefly before release

It is used primarily to **reduce pain** and **muscle guarding**.

What is Muscle Guarding?

When a structure is irritated (for example, spinal joints or soft tissue), the surrounding muscles tighten to:

Protect the area, Limit movement, Prevent further injury

This tightening is **not voluntary** — the client cannot simply "relax it."

Example:In low back pain, the **erector spinae** muscles tighten to protect the spine.

Muscle Approximation

- The Rate is slow. The therapist takes care not to slide over the surface of skin.
- Approximation is held until the muscle relaxes.
- The technique is primarily used on short muscles such as sections of Erector spinae group.

Effects: reduces muscle tone & Muscle Spasm

Contraindication:

- Locally painful Conditions
- Local Acute conditions
- Hypotonic or Atonic muscle
- Pathologies of connective tissue
- Skin lesion including healing incisions

Myofascial trigger Points

A **trigger point** is:

- A hyperirritable spot
- Located within a taut band of skeletal muscle
- Painful on compression
- May produce referred pain

Characteristics of Trigger Points

Trigger points are characterized by:

Palpable taut band, Local tenderness

Referred pain pattern

Possible local twitch response

They are usually found in **chronically overloaded muscles.**

Myofascial trigger Points

Types of Trigger Points:

Active Trigger Point

Produces spontaneous pain

Causes referred pain

Latent Trigger Point

Painful only when pressed

Does not cause spontaneous pain

Primary Trigger Point

Directly activated by Acute or Chronic Mechanical Strain

Or Overload of Affected Muscle

Secondary Trigger Point

Activated in the overworked synergist or Antagonist muscles

Satellite Trigger Point

Found in the muscles that lies within the referral pattern of another trigger point

Myofascial trigger Points

Common Causes:

- Muscle overuse,
- Poor posture
- Repetitive strain,
- Trauma
- Emotional stress,
- Sustained contraction
- Impaired Sleep
- Nutritional Inadequacies like vit B, C or folic acid deficiency
- Metabolic Imbalance like Hypothyroidism, Hypo-glycaemia, Gout

Myofascial trigger Points

Signs & Symptoms

- Deep aching pain
- Referred pain pattern
- Muscle stiffness
- Restricted range of motion
- Weakness without atrophy

Palpation Method

- Identify the muscle
- Palpate perpendicular to fibers
- Feel for taut band
- Locate tender nodule

Myofascial trigger Points

Trigger points are treated by variety of techniques:

- Skin Rolling
- Repetitive muscle stripping
- Ischemic compression
- Intermittent Cold Distraction And Stretch
- Percussion & Stretch
- Post Isometric Relaxation

Myofascial trigger Points

Ischemic compression:

- Static Compression applied by therapist's Thumbs, fingertips or olecranon to the trigger point.
- The pressure used is sufficient to cause local ischemia (**Decreased or restricted blood supply to a tissue)** in the tissue that is compressed, with in clients pain tolerance
- The length of time compression held varies from 7 seconds to 1 min.
- The reactive **Hyperemia (Increased blood flow to a specific area of the body)**that follows the release of pressure may help to flush metabolites from the tissue.
- After ischemic compression , stretch the muscle, followed by Heat Hydrotherapy

Myofascial trigger Points

Intermittent cold Distraction and Stretch:

- Brief application of cold to the skin over the muscle containing the trigger point.
- Followed by careful stretch of affected muscle to just before the onset of pain.

Percussion & Stretch:

- is a slow tapping of the trigger point using a reflex hammer (8-10 times)
- Followed by a pain free Stretch

Cross Fibre Friction

- **Effect:** This technique is used in the **Sub Acute and Chronic stages** of healing to breakdown **Adhesions** in the muscles, tendons & ligaments.
- The therapist ‘s fingers or thumb do not slide over the skin, instead the superficial tissues are moved over the deeper ones.
- This technique can be applied perpendicular/transverse
- A specific consent to treat is required prior using this technique, because initially it can be painful and deep.
- Communication about pain levels continues throughout the technique.
- CFF technique results as a temporary local Analgesic effect
- After CFF technique stretch should be given followed by cold hydrotherapy.

Cross Fibre Friction

Contraindication:

- Peripheral Nerves with Acute injury
- Rheumatoid Arthritis
- Infective Arthritis
- Structures that are too deep to be reached
- Client's use of Anti-inflammatories
- Client's use high dose long term steroid medication
- Peripheral vascular disease
- Fragility of the skin
- Client discomfort with the treatment

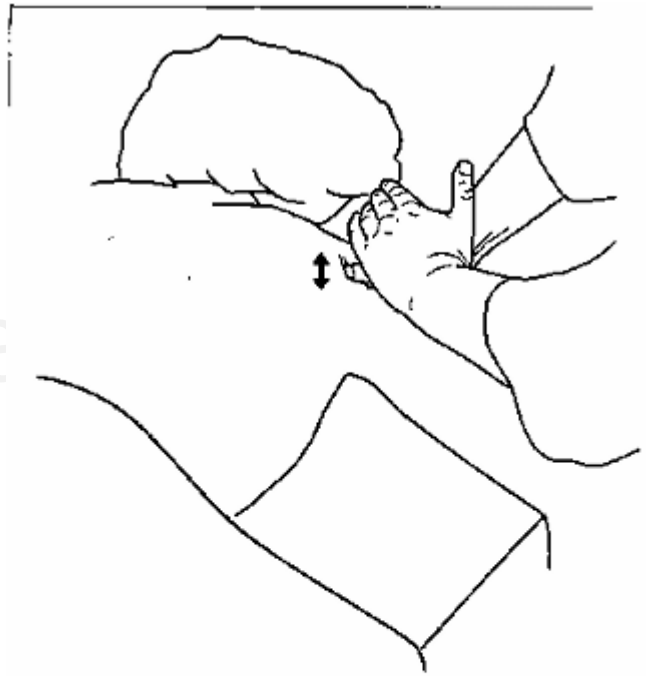

Figure 4.8
Cross-fibre frictions to the lateral tendon of infraspinatus; once the tendon is located using active resisted testing, the tendon is placed in a relaxed position; the adhesion is located; the treating thumb is reinforced by the therapist's other hand.

Fascial or Connective tissue Techniques

- **What is Fascia?**

Fascia is a thin but incredibly strong layer of **connective tissue** that wraps around and supports everything inside your body — muscles, bones, organs, nerves, and blood vessels.

Why Fascia Is Important

- Supports posture
- Helps muscles work together
- Transmits force throughout the body
- Contains many sensory nerve endings (important for pain and body awareness)
- Can tighten or become restricted after injury, stress, or lack of movement

Fascial or Connective tissue Techniques

Types of Fascia : There are **three main types**:

1. Superficial Fascia: Quite mobile, accumulation of tissue fluids

Located just under the skin

Contains fat, nerves, and blood vessels

Helps cushion and insulate the body

2. Deep Fascia

Surrounds muscles, bones, and joints

Helps transmit force and coordinate movement

Important in athletic performance

3. Subserous /Visceral Fascia

Surrounds internal organs (heart, lungs, stomach, etc.)

Helps hold organs in place while allowing them to move

Fascial or Connective tissue Techniques

Fascia Assessment methods:

- Skin rolling
- Fascial glide
- Positional testing

Skin rolling: Superficial restriction sometimes trigger points can be assessed & treated with Skin rolling.

Fascial glide: The therapist hand contact the skin and move or glide it over the deeper structures.

The skin is moved on the cardinal planes, anteriorly, posteriorly, superiorly, inferiorly, laterally or medially.

The pressure & direction of the glide depending on the fascia to be assessed.

Lighter pressure is used to assess more superficial fascia

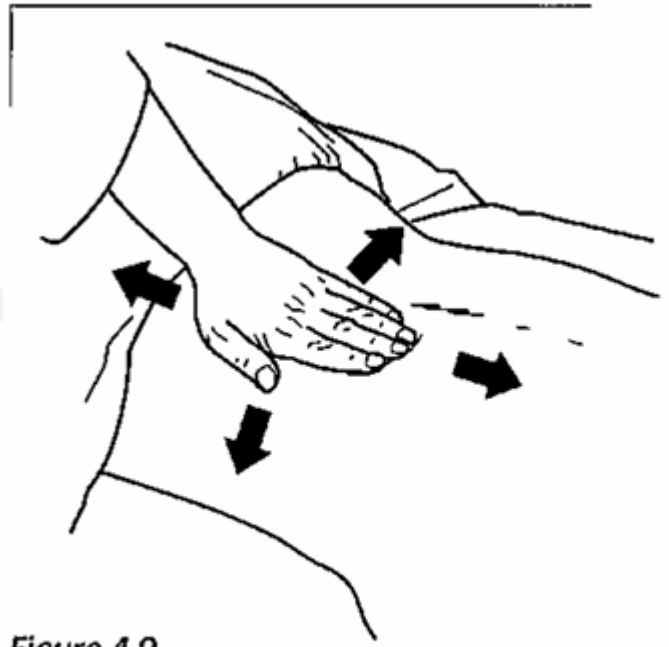

Figure 4.9
Fascial assessment: Fascial glide is performed on the cardinal planes to assess areas of restriction.

Fascial or Connective tissue Techniques

Fascial Assessment: **Positional testing**

- The limb or body part is passively moved through its range until a barrier to motion is encountered.
- A fascial barrier occurs before a ligamentous or joint capsule barrier.

Two main categories :**Direct & Indirect Techniques**

To release fascia: Little or no lubricant is used

Fascial or Connective tissue Techniques

Direct Fascial Techniques:

- Skin Rolling
- Crossed hand Fascial Stretch
- Fascial Spreading
- Cutting technique
- Fascial Torquing
- S-Bowing
- C- Bowing
- J-stroke

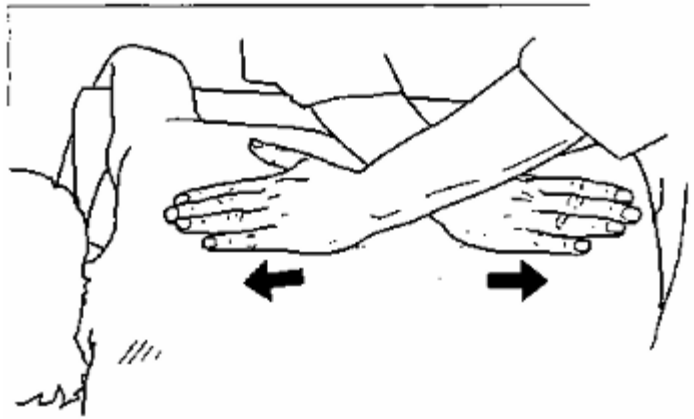

Figure 4.10
Direct fascial techniques: Crossed-hands fascial stretch.

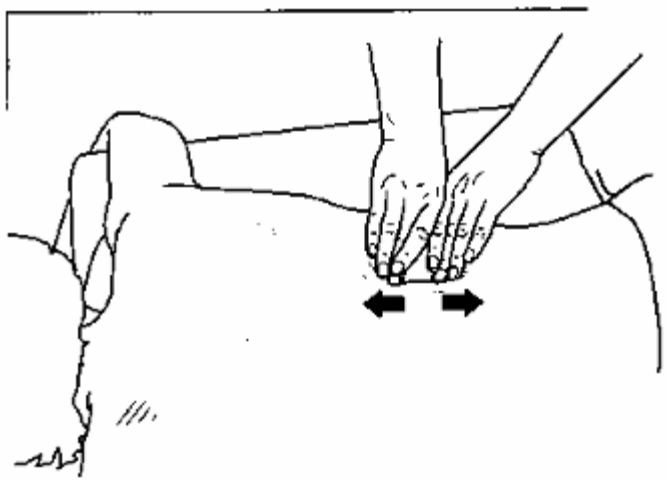

Figure 4.11
Direct fascial techniques: Fascial spreading using fingertips.

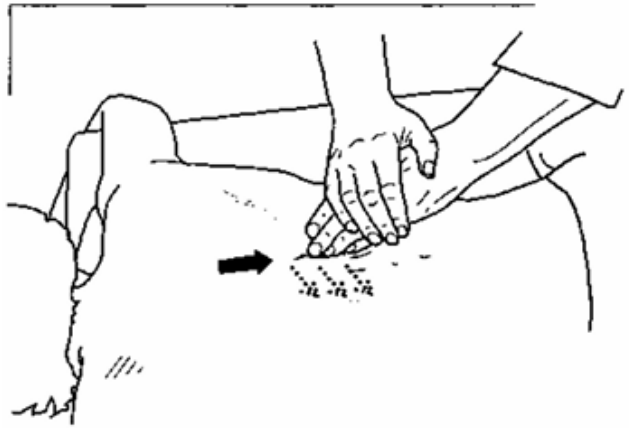

Figure 4.12
Direct fascial techniques: Cutting technique strokes outlining erector spinae; oblique strokes to loosen fascia shown as dotted arrows.

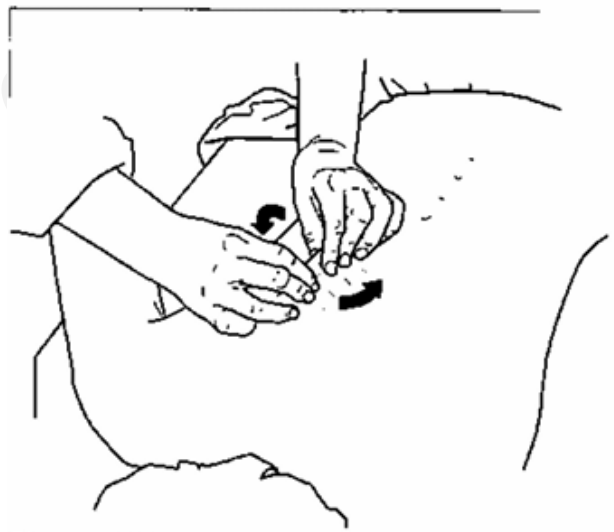

Figure 4.13
Direct fascial techniques: Fascial torquing.

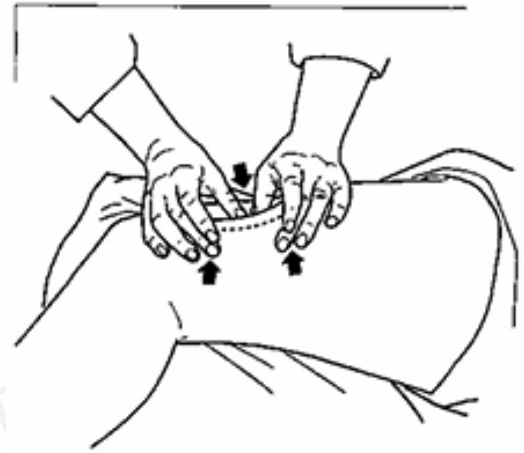

Figure 4.14
Direct fascial techniques: C-bowing to iliotibial band.

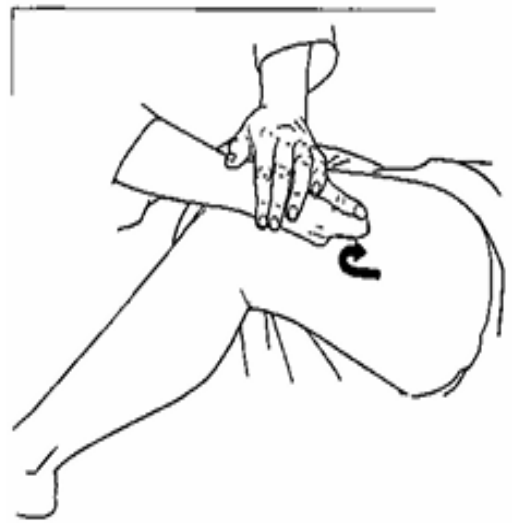

Figure 4.15
Direct fascial techniques: J-stroke to iliotibial band with left hand reinforcing the stroke.

Fascial or Connective tissue Techniques

Fascia and Pain

When fascia becomes tight, it may contribute to:

- Muscle stiffness
- Reduced mobility
- Chronic pain
- Trigger points

Effects Fascial Techniques:

- Reduce pain
- Reduce Hypertonicity
- Increased Local Circulation
- Decreased SNS

Fascial or Connective tissue Techniques

Contraindication:

- Acute injury
- Hypotonic
- Atonic
- Fragile skin
- Skin lesions
- Recent incisions
- Painful conditions
- Anticoagulant Medication use

Fascial or Connective tissue Techniques

Contraindication:

- Acute injury
- Hypotonic
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- Anticoagulant Medication use

Indirect Fascial Techniques

Indirect fascial technique is a gentle manual therapy approach where the practitioner moves tissue **toward ease and comfort**, rather than into restriction.

Effects:

- It increases the Excursion (Range of movement)
- It increases the flexibility of fascia

Indirect Fascia vs Direct Fascia Technique

Direct Technique	Indirect Technique
Moves into restriction	Moves away from restriction
Often uses stretch or pressure	Uses gentle positioning
Can be more intense	Usually very gentle
Good for chronic tightness	Good for acute or sensitive tissue

Indirect Fascia Technique

Contraindication:

- Acute inflammation
- Undiagnosed Lumps
- Recent Head Trauma
- Neurosurgery

Joint Mobilization Technique

Joint mobilization is a **passive manual technique** performed by the therapist to:

- Restore joint play
- Reduce pain
- Improve range of motion (ROM)
- Decrease joint stiffness

Shaking:

Two Types**: Direct Shaking & Indirect Shaking**

Direct Shaking: Therapist grasps the muscle belly for direct shaking.

Indirect Shaking: Therapist shakes the distal limb for indirect shaking.

- It is used for tight muscles
- It helps to reduce muscle tone
- It increases Relaxation

Joint Mobilization Technique

Shaking Effects:

- It is used for tight muscles
- It helps to reduce muscle tone
- It increases Relaxation
- Indirect shaking creates successive action at the joint.

What is successive action means?

The movement passes from one segment to another in a chain like sequence

Contraindication:

- Acute Injuries to bones
- Acute injuries to muscles
- Acute injuries to nerves

Joint Mobilization Technique

Rocking:

It is a non-Swedish massage technique in which the therapist applies **gentle, rhythmic oscillatory movements** to the body or a body part.

The movement is performed in a **smooth, repetitive rocking motion**, causing the client's body to sway back and forth.

Effects:

- Promotes deep relaxation
- Reduces muscle tone
- It also **helps mobilize the joint capsule**
- It increases the successive action at the moving joint which helps to **move synovial fluid necessary for joint nutrition**

Contraindication:

Acute injuries to Bones, Muscles and Nerves

Joint Mobilization Technique

Tractioning:

- A slow pull along the axis of the body part (long axis traction) is applied.
- The joint surfaces are distracted, or slightly pulled apart, by this action**. It means** It creates a separating force between joint surfaces.

Purpose:

- To reduce joint compression
- To increase joint space
- To relieve pressure within the joint
- To promote relaxation
- To reduce stiffness

Joint Mobilization Technique

Tractioning Effects:

- Reduces joint pressure
- Improves joint mobility
- Decreases compression
- Reduces pain
- Relaxes surrounding muscles
- Improves circulation around the joint

Contraindication:

- Acute injury
- Unhealed fractures
- Ruptured Ligaments
- Rheumatoid Arthritis (especially C1&C2)
- Hypermobile joints

Recoil

- Also called Rib springing done for Chest Mobility.
- It can be used on the posterior, Anterior or lateral part of the rib cage, depending on the location of restrictions.
- They are used to reduce connective tissue adhesions and to mobilize joints and stretch fascia.

Contraindication:

- Hypermobile joints
- Joint restricted by pins , screws, wires
- Acute injury
- RA
- Inflammation of costal cartilage
- osteoporosis

Joint play

Joint play refers to the small, involuntary movements that occur within a joint.

- These movements are necessary for full, pain-free physiological motion.
- They cannot be performed actively by the client.

Effects of Joint Play Techniques

- Reduce joint stiffness
- Decrease pain
- Stretch tight joint capsule
- Improve overall range of motion
- Reduce muscle spasm
- Encourage successive action of joint

Joint Play

Types of Joint Play Movements

Common joint play techniques include:

- Distraction (traction) always 1st step to perform joint play
- Gliding (translation)
- Compression
- Spin
- **Indications :**Joint play techniques are used in cases of:
- Hypomobility
- Capsular restriction
- Post-immobilization stiffness
- Painful joint conditions (within tolerance)
- Muscle guarding secondary to joint restriction

Joint Play

Kaltenborn's Sustained translatory joint play technique:

- To treat painful joints, distraction at right angle to the joint surface is applied for 10 sec and than released, foe several repetitions.
- To treat restricted joints, it is applied for 6 seconds and than partially released. This is repeated at 3-4 sec intervals.
- Grade I: Distraction is applied to loosen up the joint. No stress placed on the capsule.
- Grade II: Distraction, then glide, is applies sufficiently to take up tissue slack and tighten the capsule.

(tissue slack means the loose, relaxed state of soft tissue before it becomes tight.)

To decrease pain & Spasm Grade I & Grade II

Grade III: Distraction, then glide is applied sufficiently to place a stretch on the joint capsule (Increases joint mobility).

Joint Play

Contraindication:

- Acute conditions like joint effusions or infections
- **Joint restricted by pins, screws, rods**
- **Joint hypermobility**
- **Unhealed fractures**
- **Osteoarthritis when osteophytes are present**
- **Osteoporosis**
- **Client is on corticosteroids**

THANKYOU