

A light blue wireframe illustration of a human figure with arms raised, serving as a background for the document.

POLICIES AND PROCEDURES OF

NEEDLING THERAPY

FOR SAFE PRACTICE



DATE: 1 MARCH 2023

Aim:

This policy is to serve as a guideline for therapists who perform Needling Therapy at clinical practice. This policy has been written in accordance with Federation of State Boards of Physical Therapy USA 2018.

Definition:

Needling therapy is a term used to describe two procedures of using a thin filament, stainless steel, sterile and disposable needle (Acupuncture needle) to improve or restore function.

1st procedure:

Intramuscular stimulation (IMS) targeting the trigger point and stimulate it to encourage the spinal cord reflex which is Local Twitch response (LTR).

2nd procedure:

Intrafascial stimulation (IFS) targeting the chemical release like serotonin.

Process:

Physical Therapists and Medical Doctors will only be permitted to practice Needling therapy if they have completed a Bachelor degree (exception for technician whom completed a minimum of diploma and 10 years of experience) and an adequate Needling Therapy intensive training course. It is at the clinic manager's discretion to determine if the level of training of the therapist is adequate to perform Needling Therapy at clinic. All therapists who practice Needling therapy will be required to hold sufficient insurance that covers Needling therapy as a modality.

Principles of Safe Practice:

- The disposable, single use, sterile needles is essential.
- Hand hygiene and using gloves is required.
- Skin hygiene before puncturing is required.
- Sharps bins should be close at hand, and needles disposed of immediately.

- Therapists should confine their use of Needling therapy to treatment of conditions within the scope of professional practice for which they have training and experience.
- Therapists must comply with current National, State or Territory infection control guidelines.
- Therapists should keep clearly documented records describing the Needling therapy procedure.
- Therapists should comply with the waste disposal guidelines for needles.
- Therapists should be aware of additional requirements for waste disposal of needles or bodily fluids as set by local governing bodies.
- The patient should be provided with an explanation of the proposed treatment and what it entails. This explanation may include:
 - A. The procedure of the needle insertion into the skin.
 - B. That sterile, single use, disposable needles are used.
 - C. A brief explanation of needling therapy intervention.
 - D. The possibility of transient symptoms during and/or after the treatment, such as fatigue, light headedness or temporary aggravation of the symptoms.
 - E. Any advice following the treatment that may be pertinent for the individual patient, such as avoid un usual activity during healing process (24-72hrs) post intervention.
 - F. The expected post needling soreness associated with intramuscular stimulation.

Extra assessment and caution may be required with patients who are pregnant, diabetic, children, patients with bleeding disorders, cancer and epilepsy.

Indication:

- 1- Intramuscular stimulation: Trigger structure that discover through full body screening which may a source of any complain through the integration of the fascial system.
- 2- Intrafascial stimulation: Muscular hypertonicity and hypotonicity.

Absolute Contraindications:

- 1- In a patient with needle phobia.
- 2- Unwilling patient - patient beliefs, fear etc.

- 3- Unable to give consent due to age related, communication, cognition.
- 4- Into an area or limb with lymphoedema.
- 5- Undiagnosed mass.
- 6- External genital.
- 7- SCALP of infants.
- 8- Eyes.
- 9- Nipple and breast tissue.
- 10- Intramuscular stimulation for Muscular hypertonicity like Muscle spasm.
- 11- Site of Skin damage.
- 12- Site of inflammation e.g. post direct trauma or ankle sprain.
- 13- Site of varicose Veins.

Relative Contraindications:

1- Abnormal Bleeding Tendency:

Patients on anticoagulant therapy, thrombocytopenia etc. Patients on blood thinning medication (e.g. Plavix and Warfarin) or with thrombocytopenia for any reason (e.g. haemophilia) may not be suitable for Needling therapy. Caution should be exercised when needling therapy patients are on anticoagulants. Avoidance or light needling technique may be advisable. It is essential to apply pressure for haemostasis after withdrawing the needle.

2- Compromised Immune System:

Patients with compromised immune system may be more susceptible to infection and therefore may be at a greater risk of developing a local or systemic infection from Needling. Patients who are particularly vulnerable to infection include:

- A. Immunocompromised patients from disease (e.g. blood borne disease, cancer, HIV, AIDS, hepatitis, bacterial endocarditis, incompetent heart valve or valve replacements etc.).
- B. Immunocompromised from immunosuppression therapy or on cancer therapy.
- C. Debilitated patients or those with chronic illness etc.
- D. Acute immune disorders (e.g. acute states of rheumatoid arthritis, current infection, local or systemic etc.)

3- Vascular Disease:

Patients with vascular disease and may be more susceptible to bleeding, tissue trauma and infection.

4- Diabetes:

Patients with diabetes mellitus may be compromised in tissue healing capabilities or have poor peripheral circulation or Diabetic Peripheral Neuropathy.

5- Pregnancy: The use of Needling therapy during pregnancy needs to be discussed thoroughly with the patient and should be used with caution as one in four to five pregnancies may naturally terminate in the first trimester (ASAP 2007). There is a potential for erroneous connection between such occurrences and needling therapies and this should be considered in patient education, clinical reasoning and decision making. There is no study addressing needling therapy during pregnancy. There is conflicting opinion on the risk of cause spontaneous abortion.

The recommendation is:

- A. Needling Therapy can be used throughout pregnancy with caution.
- B. Risks and benefits of treatment are considered in the usual way.
- C. It is wise to avoid strong stimulation.
- D. Electro therapy should be avoided.

6- Frail Patients:

Caution should be exercised with infirm or frail patients due to the possible impaired ability to tolerate the needling therapy procedure or ability to communicate their sensations properly.

7- Epilepsy:

Patients with epilepsy, especially unstable epilepsy, should be treated with care and should not be left unattended at any stage during the treatment.

8- Allergy to Metals or Latex in Gloves:

Patients allergic to metals may react to the metal of solid filament needles used in needling therapy (alternative needles can be used e.g. gold or silver plated needles) and relative risks should be discussed prior to treatment. It is accepted that the risk of allergic reaction to solid filament needles is low. The clinician needs to be aware that patients can have allergy to latex, found in examination gloves and alternative gloves should be employed for such patients.

9- Children

In addition to gaining informed consent parental or guardian consent must be sought when treating children under the age of 18. Ensure that younger patients do not have a needle phobia and are cooperative to the procedure. It is generally recommended to avoid Intramuscular Stimulation in patients less than 13 years of age due to procedural understanding and tolerance of the local twitch response stimulus

10- Medications:

Physiotherapists should remain aware of a patient's medication history as this may alert the clinician to medical condition(s) or situations that may be contraindicated or require special precautions for Needling Therapy. Such situations may include patients on immune suppressive drugs, mood altering medication, blood thinning agents ...etc.

11- Psychological Status:

Patients with high distress, stress or psychological disorders may not be suitable for Needling therapy. Such issues may reduce the likelihood of response to treatment or lead to greater stress response and risk of adverse psychological / physical response to Needling therapy.

12- Unsuitable Patient for Any Reason.

Precaution:

- 1- Around the chest and intercostal space always use short needles and directed oblique to avoid any chance of pneumothorax.
- 2- Heart pace maker here caution of using electrical stimulation in any site of body.
- 3- Internal fixation caution of using electrical stimulation in any site of body.

Adverse events and Management :

1- Fainting:

Fainting may occur for a variety of reasons including: pain, psychological stress and tension, fatigue, positioning or in patients who are needle phobic or due to hypoglycemia. If fainting does occur remove needles and make sure the patient is lying down and consider raising their legs. Offer reassurance and water or a sweet drink.

2- Hematoma:

It is recommended to pressurize the muscle for haemostasis after Needling therapy. Ice can be used locally to minimize the bruising. Patients should be warned of the potential for bruising.

3- Stuck Needle:

On occasion a needle may become stuck due to needle twisting as there is a tendency for the skin and soft tissue to bind around the needle. Should this occur, position the patient in a relaxed manner; avoid excessive twisting of the needle. If the needle is

stuck due to over rotation, then rotate the needle in the opposite direction and remove. If it is stuck due to muscle tension, leave the needle in for a short period of time, relax the tissue around the needle with massage, ice massage or by inserting 1-4 needles around the stuck needle, then remove the needle.

4- Bent Needle:

The solid filament needle can become bent due to the needle striking hard tissue such as bone, thick fascia or due to contraction of the muscle. To prevent the bending of needles insert the needle with the patient in a relaxed and optimal position. Ensure the needling technique is optimal and avoid over curving the needle. If a needle demonstrates a bend it should be removed and discarded and replaced with a fresh needle.

5- Broken Needle:

This may occur due to poor quality of the needle or repeated bending. The risk of needle breakage is very rare with the use of single use sterile needles as there is no metal fatigue from repeated use and autoclaving. However should this occur the patient should be advised to remain calm to avoid the needle from going deeper. Mark around the site of insertion with a pen or marker to make the needle site easy to identify. If the broken needle is exposed remove the broken section with tweezers, if it is not exposed press the tissue around the insertion site until the broken section is exposed and remove with tweezers. If the needle can't be removed in the clinic, medical attention must be sought so that the needle can be removed surgically. The quality of needles is important and practitioners should only use needles that have a CE quality mark.

It is recommended to maintain approximately 1cm of the needle outside the skin. In the very unlikely event of a needle breakage at the hub, the broken needle could still be retrieved with tweezers.

6- Forgotten Needle:

All needles used should be accounted for. A forgotten needle could cause tissue trauma or serious complications such as pneumothorax. Forgotten needles are more likely to occur with static needling technique, where the needle(s) are left in site for a period of time or when needling various body parts. A "count them in, count them out policy" technique should be used, where the clinician counts the needles. This is both helpful to the clinician and reassuring to the patient.

7- Pneumothorax:

When needling around the thoracic region patients should be warned of the rare possibility of a pneumothorax as has been outlined in the precautions section.

Practitioners must have attended adequate training programmes to needle in the thoracic region.

The symptoms and signs of a pneumothorax may include:

- A. shortness of breath on exertion
- B. chest pain
- C. dry cough
- D. Decreased breath sounds on auscultation.

These symptoms may not occur until several hours after the treatment and patients need to be cautioned of this especially if they are going to be exposed to exercise and marked alterations in altitude such as flying or scuba diving. If a pneumothorax is suspected then the patient must be sent urgently to the nearest accident and emergency department.

8- Patient Self Needling:

Patients should never be given needles to take home or needle themselves or others due to obvious risks.

Remember:

The main causes of adverse events is the poor quality of the needles and malpractice.

Electrical Stimulation via Needles:

Electrotherapy can be delivered via needles but not as special for pain management. It is recommended to use in case of resistive wound or strains either in muscles, tendons, ligaments or joint capsule. In such cases essentially to confirm the strain and site of the strain through the Diagnostic Ultrasound (Sonography).

Suitable equipment and procedure has been recommended:

- A. Consider the relevant electrotherapy device contraindications.
- B. Use only devices especially designed for electroacupuncture.
- C. Follow the recommendations of the manufacturer of the electrotherapy device.
- D. Use suitable one use sterile metal tipped needles. Do not use needles with plastic handles.
- E. Do not connect electrical clips to patient contaminated needle shafts. Only to the handle.
- F. Using the proper size of needles is essential to prevent any over-shock.

Contraindications to electrotherapy via needles and in general include:

- A. A patient who is not comfortable or phobic to electrical stimulation or needling.
- B. It is recommended not to connect needles across the spinal cord including the chest wall, arm to arm or leg to leg.
- C. Patients with implanted electrical devices, such as pacemakers, spinal cord stimulators.
- D. Patients with implanted with any metals, such as total knee arthroplasty, Intramedullary nail ...etc
- E. During pregnancy.
- F. In the vicinity of the carotid sinus the vagus nerve in the anterior triangle of the neck or in the vicinity of the recurrent laryngeal nerve.
- G. In areas of sensory denervation, such as Diabetic Peripheral Neuropathy.
- H. Patient with epilepsy.
- I. Suspected patient with invasive cancer. Here need to review the red flags of cancer.

Hygiene

Hygiene Introduction:

Needling therapy is an invasive procedure and therefore poses a hazard through risk of infection and injury to the patient, the clinician and third parties. This section recommends hygiene guidelines to minimize this risk. Reference is made and Physiotherapists should read the Health Service Executive's publication Standard Precautions 2009 (HSE 2009).

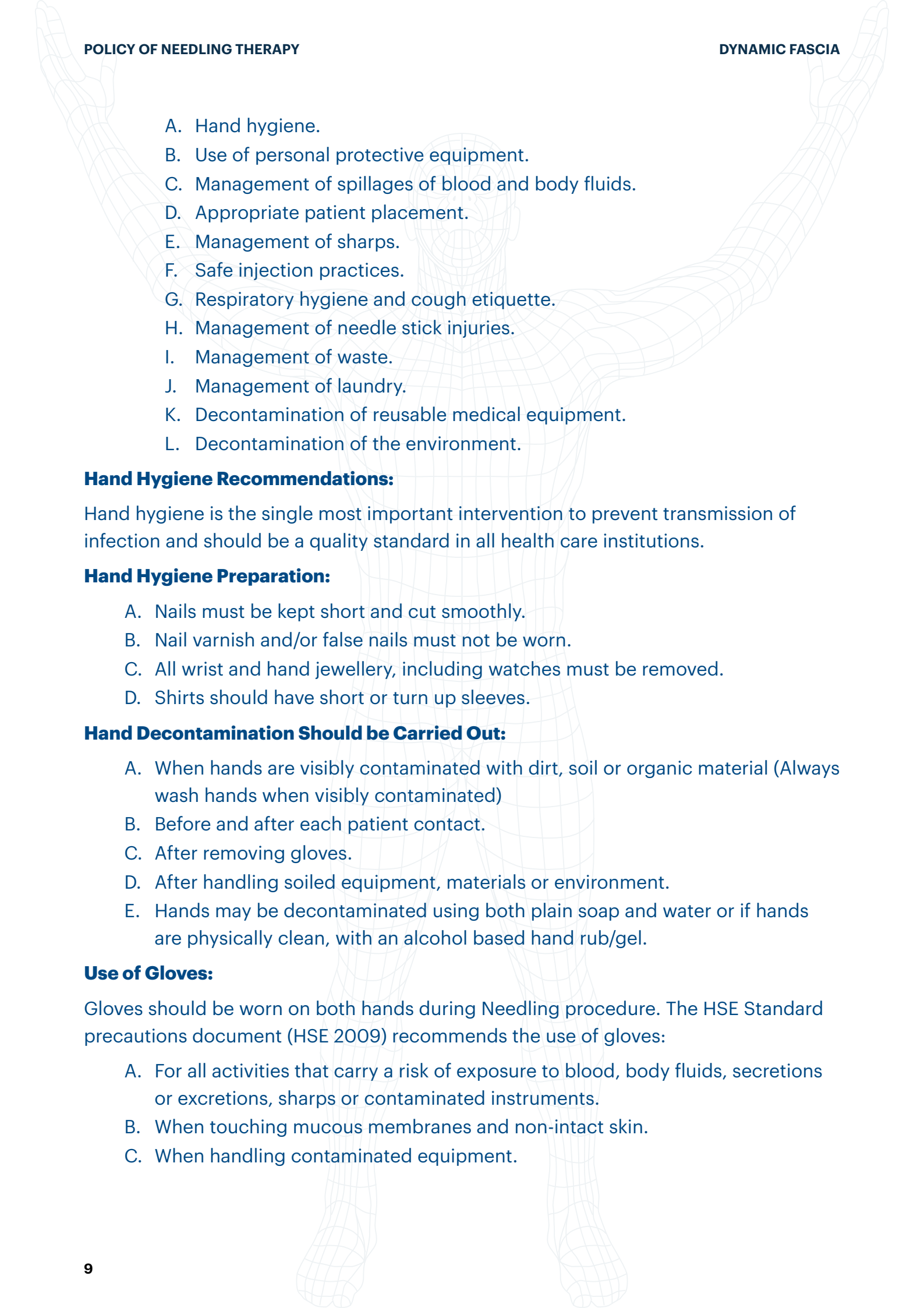
It is recommended to revise the infection control roles in your clinic, hospital or society.

Standard Precautions:

are evidence based clinical work practices published by the Centre of Disease Control (CDC) in 1996 and updated in 2007 that prevent transmission of infectious agents in healthcare settings.

Standard Precautions require all healthcare providers to:

- A. Assume that every person is potentially infected or colonized with an organism that could be transmitted in the healthcare setting.
- B. Apply a set of work practices to blood and all body fluids including:

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- A. Hand hygiene.
 - B. Use of personal protective equipment.
 - C. Management of spillages of blood and body fluids.
 - D. Appropriate patient placement.
 - E. Management of sharps.
 - F. Safe injection practices.
 - G. Respiratory hygiene and cough etiquette.
 - H. Management of needle stick injuries.
 - I. Management of waste.
 - J. Management of laundry.
 - K. Decontamination of reusable medical equipment.
 - L. Decontamination of the environment.

Hand Hygiene Recommendations:

Hand hygiene is the single most important intervention to prevent transmission of infection and should be a quality standard in all health care institutions.

Hand Hygiene Preparation:

- A. Nails must be kept short and cut smoothly.
- B. Nail varnish and/or false nails must not be worn.
- C. All wrist and hand jewellery, including watches must be removed.
- D. Shirts should have short or turn up sleeves.

Hand Decontamination Should be Carried Out:

- A. When hands are visibly contaminated with dirt, soil or organic material (Always wash hands when visibly contaminated)
- B. Before and after each patient contact.
- C. After removing gloves.
- D. After handling soiled equipment, materials or environment.
- E. Hands may be decontaminated using both plain soap and water or if hands are physically clean, with an alcohol based hand rub/gel.

Use of Gloves:

Gloves should be worn on both hands during Needling procedure. The HSE Standard precautions document (HSE 2009) recommends the use of gloves:

- A. For all activities that carry a risk of exposure to blood, body fluids, secretions or excretions, sharps or contaminated instruments.
- B. When touching mucous membranes and non-intact skin.
- C. When handling contaminated equipment.

Gloves should be single use. Clinician with allergy to latex should use latex-free gloves. Sterile gloves are recommended if contact with a sterile body area is required. Hand decontamination should be carried out as per recommendations. Gloves should be donned immediately before Needling procedure and removed as soon as Needling procedure is finished. Gloves soiled with blood or body fluids should be disposed of as Medical waste.

The gloves may affect the kinaesthetic sensations during Needling procedure, however clinicians should be able to adapt to palpation technique using gloves.

Patient Skin Preparation:

Routine disinfection of visibly clean skin before needling has not been considered necessary (Hoffman 2001; Baldry 2005; BAC 2006; ASAP 2007; White, Cummings et al. 2008). This is in line with World Health Organisation (WHO) best infection-control practices for intradermal, subcutaneous and intramuscular needle injections (Hutin, Hauri et al. 2003). It is argued that bacteria resident in the skin is not likely to cause infection provided host immunity is not seriously impaired (Hoffman 2001; Baldry 2005). Despite this, American acupuncture guidelines recommend to disinfect the skin with 70% isopropyl alcohol prior to needling.

- A. Skin preparation is usually not required (Hoffman 2001), but if desired 70% isopropyl alcohol swab should be used prior to needling.
- B. Be sure the patient's skin is visibly clean and if not the skin should be cleaned with warm soapy water and dried fully.
- C. If Needling close to an area that is more susceptible to infection such as a joint or bursa, or in an area that is habitually moist such as the armpit or groin, it is recommended to prepare the skin by swabbing, scrubbing with alcohol, isopropanol or povidone-iodine and allowing to dry for 2 minutes. This procedure may also be required with patients whom have an impaired immune system if deemed to be appropriate for Needling therapy.
- D. For a review on skin disinfection refer to Hoffman (Hoffman 2001).

Skin Sterilization:

- A. Skin sterilization is recommended for patients who have a deficiency in their immune system.
- B. A sterilizing solution such as 2% iodine in 70% alcohol should be used and left on the skin to dry for a minimum time of 2 minutes.
- C. In this case a sterile glove is required if palpating the sterilized skin is required.

Immunocompromised patients include those with malignancies, autoimmune diseases such as S.L.E, AIDS or R.A. and those on immune suppressive drugs e.g. Steroids.

These groups of people can get an infection from a much smaller number of infectious agents than those with an intact immune system. Disinfection may not remove enough organisms to prevent infection, hence their skin needs to be sterilized.

The background to this policy is that in a normal healthy person a certain amount of infectious agents (bacteria, viruses) have to be introduced to the host's system before the body's defences are overwhelmed and an infection takes place. To reduce the number of bacteria or viruses below this infective agent is to disinfect. To completely remove all forms of life from the skin is to sterilize.

Needles

1. It is recommended without exception to use only high quality sterile single use disposable solid filament needles for needling therapy. Needles should be of good quality and should have a CE quality mark or British Kite mark. Ensure outer packaging is intact and the needles are within date and if not discard. Follow storage guidelines as recommended by the manufacturer and keep needles out of reach of children.
2. Needles should never be re-sterilized and/or reused.
3. Avoid touching the shaft of the needle as this could increase the risk of infection. Needles should be held by the handle only.
4. If the needle is contaminated by the clinician's hand, other object or surface it should be discarded and replaced with a fresh sterile needle.
5. In Intramuscular stimulation the needle may be removed from the skin and reinserted at another point. In this case usual procedure should be followed and again the shaft of the needle should not be touched. Be aware that the needle may become blunt. If re-sheathing the needle back into its own guide tube, never re-sheath the needle into the guide tube sharp point first. The needle can be inserted back into the guide tube handle in first. This is a procedure that needs to be practiced in order to achieve the dexterity required to perform safely and adequately. Needles and guide tubes should only be used together on an individual patient and never mixed as this could lead to cross contamination between patients. Physiotherapists should check their local work practice guidelines to ensure this type of needle re-sheathing is allowable.
6. All needles and needle guide tubes should be discarded immediately after treatment. Needles in sharps container, while the tubes in general waste.
7. Never store a used needle for use on the patient at another treatment.

8. All needles must be accounted for after each session to avoid leaving a needle in site in a patient or exposing the clinician or a third party to a needle stick injury by a lost needle.
9. Patients should never be given needles to take home or needle themselves or others due to obvious risks.

Needle and Medical Waste Disposal:

1. Disposal of needles and contaminated waste should be in line national policy document.
2. Dispose of needles carefully in a “sharps container”. Physiotherapists should ensure the sharps container is within easy reach of the treatment area. It is important not to fill the container above the normal fill line indicator as this can lead to inadvertent needle stick injury. Ideally the sharps container should be wall mounted or on a trolley and should not be placed on the floor or in areas accessible to children. Full sharps containers should be closed using the locking mechanism and disposed of in accordance with local guidelines with a licensed waste disposal company.
3. Medical waste from Needling therapy may include swabs contaminated with blood and serous, soiled gloves ...etc. Medical waste should be disposed of in an approved yellow bag. Yellow bags are designed for the disposal of soft items such as soiled swabs, gloves ...etc. No sharp objects or needles should be placed in yellow bags. Yellow bags should be available within easy reach of the treatment area and when full should be disposed of in accordance with local guidelines with a licensed waste disposal company.

Procedures Following a Needle Stick Injury or Other Exposure Incident:

Do the Following:

1. Wash the area thoroughly with soap and warm water. In the case of needle stick injury / wounds encourage them to bleed. Do not suck the puncture site. Do not use a nail brush.
2. Report the incident at once to your manager. Complete an accident form. Make a note of the details of the source patient (i.e. the patient on which the needle had been used). Take the name, date of birth, address, telephone number

3. Visit the Accident and Emergency Department where the situation will be assessed by the Accident and Emergency doctor (This must be done as soon as possible after the injury). The Accident and Emergency Doctor will need to consider the following:
 - Was this a significant injury in respect of possible exposure to blood/body fluid of another person.
 - Is the recipient of this injury vaccinated against Hepatitis B
 - If it was a significant injury, can the source patient be tested for blood borne infections (HIV, Hep C, Hep B)
4. The Accident and Emergency doctor will provide immediate treatment as appropriate, and if further follow-up blood tests are necessary, this will be usually be done either by your employers occupational health resource, or your own GP.

Management of Blood and Bodily Fluids Spills:

Blood and bodily fluid spills are rare in Needling therapy practice. The following guidelines are recommended if a blood or bodily fluid spill occurs.

- A. Wear suitable protective equipment e.g. gloves, apron, goggles as required.
- B. Absorb the spill with paper towels. Disinfectants can be less active or even ineffective in the presence of high concentrations of proteins, such as in blood. The majority of the spilled blood or body fluid should be removed prior to disinfection. The absorbent paper towel waste should be placed in a suitable waterproof yellow bag.
- C. Clean the spill site with detergent and water, rinse and dry with paper towel and dispose of the cleaning towels in yellow bags.
- D. Disinfect the area with a chlorine-generating disinfectant if bare skin will contact the spill site (such as a treatment plinth) or if it is difficult to clean the surface in the clinical area. Sodium hypochlorite solutions (bleach) must be freshly prepared. When using disinfectants follow manufacturer's recommendations in relation to usage and safety. Disinfectants should be left in contact with the surface for 10 minutes. Domestic liquid bleach usually contains 4-5% available chlorine, diluted with tap water in a concentration of 1:100 yields 5000 parts per million (PPM) approximately. This concentration will inactivate Hepatitis B in 10 minutes and HIV virus in 2 minutes. Surfaces that cannot be cleaned adequately may need replacement e.g. carpeted surfaces.
- E. Flood the spill site or wipe down the spill site with disposable towels soaked in disinfectant.

- F. Absorb the disinfectant solution with disposable materials. Alternatively, the disinfectant may be permitted to dry.
- G. Rinse the spill site with water to remove any noxious chemicals or odours. Dry the spill site to prevent slipping or further spills.
- H. All materials used to absorb and clean the spill area should be placed in waterproof yellow bags and disposed of appropriately.

PRINCIPLES OF DRY NEEDLING PRACTICAL APPLICATION:

This section outlines the principles of Needling therapy of practice including:

1. Patient selection recommendations.
2. Patient education and consent prior to treatment.
3. Patient procedural education.
4. Practical application – positioning, palpation, technique, after Needling care.

Patient Selection

Patients should be screened for appropriateness of Needling Therapy. clinician should select patients suitable for Needling Therapy based upon findings from the Clinical assessment. Appropriate selection of patients involves:

- Consideration of the patient's clinical diagnosis with the reasonable expectation of benefits from needling therapy.
- Consideration of the patient's medical conditions including conditions requiring caution (e.g. pregnancy, use of medications such as blood thinners, the presence of a pacemaker, the presence of cancer or haemophilia).
- Consideration of the patient's ability to understand what will be done and why.
- Consideration of the patient's capacity to effectively communicate his or her response to treatment.
- Consideration of the patient's ability to comply with treatment requirements (e.g. lying still)
- Consideration of the patient's ability to provide informed consent within the guidelines of local regulations.
- Consideration of the capacity for the safe application and management of precautions (e.g. physiotherapy treatment in the patient home, at a sports club ...etc).

In addition it is important to consider the patient and practice context will issues/factors related to the application of needling therapy:

1. Understand the patient's characteristics: culture, comfort with needles, response to pain, response to handling.
2. Understand the patient's functional and physical ability: cognition, anxiety ..etc.
3. Understand the patient's language and communication: consent, reliability, understanding.
4. Understand the patient's psychological status: Fear of needles, emotional responses.
5. Understand the patient's age limitations: cautious use in the pre teenage years (consider other non Needling methods), consent requirements as routine.

Patient Education and Consent Prior to Treatment

Prior to Needling therapy the clinician should educate the patient on the procedure. This may include where appropriate:

1. The indication and aim of the treatment should be explained appropriately to the patient.
2. A brief explanation of how the treatment potentially works.
3. It should be made clear to the patient that Needling therapy is an invasive procedure with insertion of the needle into the skin, subcutaneous tissue and muscle ...etc.
4. The risks of Needling therapy should be discussed with the patient to allow the patient to make an informed decision about the choice of treatment and to give informed consent to the procedure. The patient should be informed of the possibility of transient symptoms during and/or after the treatment including post treatment soreness, fatigue, light headedness or temporary aggravation and haematoma. The patient should be informed that single use disposable needles will be utilized during treatment.
5. Persons under 18 years of age should also have informed consent from parent or guardian.
6. The patient should be given an opportunity to have their questions answered
7. clinician should gain informed consent from patients and Consent should be documented.
8. Informed consent can be written or verbal as appropriate. Written consent may be required and clinician must use their judgement in deciding when written consent is needed.

9. Patient education should delineate that Needling Therapy when administered by clinician does not constitute the practice of acupuncture, unless the clinician is an acupuncturist or is qualified to deliver acupuncture.

Procedural Education

Needling therapy requires substantial cooperative interaction between patient and clinician. To enhance the safety and comfort of DN therapy the following is recommended:

- A. The patient is asked and encouraged to give feedback to the clinician during Needling therapy session to ensure treatment is matched to suit the patient.
- B. The patient is informed to remain still during treatment.
- C. The patient should be aware that they can at any time withdraw from the treatment and at this stage the clinician will stop the treatment.
- D. If the procedure is Intramuscular stimulation the patient should be informed of the local twitch response (LTR). This may feel like an electric shock or pulse. The patient is informed that reproduction of the LTR is the aim of Intramuscular stimulation.
- E. If Intrafascial stimulation is utilized, where the needle is left in site statically for a period of time, the patient should be informed not to move as this poses a risk of further needle penetration and potential harm such as pneumothorax.
- F. If the procedure is Intrafascial stimulation and the patient is left alone in a treatment room, the patient should be able to call or alert the clinician easily.
- G. Any advice following the treatment that may be pertinent for the individual patient should be given in context of the overall plan of care.

Practical Application:

Positioning

1. The patient should be primarily treated reclined and positioned in a suitable manner to access the muscle(s) to be needled. Positions may include supine, prone, side lying or a combination of these positions. Pillows and bolsters can be utilized to ensure a relaxed position for the patient. It is important to ensure the patient is comfortable and relaxed
2. Treating patients in sitting should be avoided to prevent a fall from potential fainting, though low risk.

3. It is helpful to be able to see the patients face for feedback, but accepting that this is not always possible, it is important to keep verbal communication with the patient to assess their response to the procedure.
4. The clinician's position during needling should be comfortable and ensure good body mechanics. This is important to assist in prevention of work related disorders.
5. Proper and safe patient's position is following the roles 2/3:
 1. Maximum body contact
 2. Shorten the muscle
 3. Eliminate the gravity
6. Proper and safe clinician's position is simply to pull the needle to your site which allowing the clinician to control the needle and listen to the layers.

Palpation

1. The muscle(s) to be treated and anatomical landmarks should be identified by visual observation and skilled palpation. The clinician needs to be aware of avoiding other anatomical structures in the relevant area being needled e.g. sciatic nerve, lung ...etc.
2. The muscle should be palpated. The muscle can be contracted to identify fibre direction and to clarify muscle identification.
3. Flat palpation or pincer grip techniques should be employed as appropriate for the area being needled. It is again important to ensure anatomical position. Pincer grip is generally the recommended choice over flat palpation, in areas where applicable, to allow systematic avoidance of other tissues that may be more vulnerable with flat palpation approach e.g. when needling the upper trapezius.
4. Should the clinician remove his/her palpating hand from the muscle, to prepare the needle ...etc, the muscle and bony landmarks should be found again to avoid inadvertent incorrect needling due to patient movement or incorrect hand placement.
5. Ensure the patient and muscle is relaxed before starting the needle procedure.
6. If the clinician not be able to palpate or confirm the muscle and anatomical landmarks, or is unsure of anatomical topography of the area to be needled, needling therapy should be avoided. This may occur in certain cases, for example obese patients.

Technique

It is accepted that various conceptual models and techniques maybe used individually or in combination during needling therapy. A brief outline of the concepts has been

mentioned in the introduction of this guide and clinician are recommended to review the referenced material.

1. The area to be needled is identified and the Trigger structure is palpated and located as outlined in the palpation section above.
2. The palpating hand holds the muscle in pincer grip or flat palpation and the needling hand holds the needle by the handle only.
3. The clinician should remain aware of anatomical structures within the treatment area that are vulnerable to needling, such as the lung and ensure that technique avoids penetration.
4. The clinicians should stay alert to voluntary and involuntary patient movement that may compromise safe needling practice during treatment. In this regard the clinician's "needling hand" should keep contact with the patient to allow controlled relative movement with the patient should they patient move.
5. A high quality solid filament sterile needle of a thickness and length suitable for the muscle and size of the patient to be needled is chosen.
6. The needle is inserted through the skin either directly or using a guide tube. The guide tube is then removed. The clinician should not touch the needle shaft to prevent contamination (see hygiene section).
7. For Intrafascial stimulation the needle is inserted to the depth for superficial fascia. For Intramuscular stimulation, to a depth of the muscles.
8. In Intramuscular stimulation technique the needle maybe moved in a slow steady lancing motion in and out of the muscle. This is termed dynamic needling and is applied by bringing the needle out to the edge of the epimysial fascia and directing the needle back into the muscle. The main aim of this treatment is to elicit Local Twitch Response (LTR).
9. Sharp pain of a stinging, lancing, electrical or burning nature may signal penetration of a deep fascia, a nerve or blood vessel and should this be the case the needle should be removed and confirm the angulation.
10. It is acceptable that an individual needle may be reinserted across the skin of the patient and then be disposed of when finished. The clinician should not touch the needle shaft to prevent contamination of the needle and potentially increase risk of infection. If this occurs the needle should be disposed of and a new needle used. Of course a needle should never be stored or reused.
11. The intensity of the treatment should suit the tolerance of the patient and be relative to the severity of the patient's presentation. The parameters that can be controlled in delivering Needling therapy may include: Intrafascial vs. Intramuscular, stimulation and quantity of local twitch responses, length of time of

active needling, number of needle insertions per muscle and number of muscles treated in one session.

12. Should a needle repeatedly contact bone it should be withdrawn and replaced as blunting may occur.
13. The clinician should keep active communication with the patient during the Needling therapy and limit treatment to a level that the patient can tolerate. The patient should be reassured throughout the procedure. This is most important for the initial treatment for a new patient.
14. The patient's response to previous Intramuscular stimulation treatments should be taken into account to delineate the intensity of the needling treatment.
15. When treatment is completed, all needles should be accounted for and discarded into a "sharps container" as well as guide tubes. Refer to the section on Hygiene.
16. Care should be taken when administering needle in an external setting (such as a local sports club or a home visit). The required equipment should be available on hand. The patient's skin should also be examined to ensure cleanliness prior to Needling (see Hygiene Section).

Aftercare

The following is recommended for aftercare:

1. The area needled should be compressed immediately for 30-60 seconds following needle withdrawal to ensure haemostasis using a cotton swab. Cotton swabs should be disposed of in yellow medical waste bags only.
2. If blood is present on the skin, the skin should be cleaned with alcohol swab and the swab discarded in a yellow clinical waste bag.
3. The patient should receive where appropriate advice on safe self care such as hot or cold packs, stretching, exercises and / or activity modification as required in the overall context of the plan of care.
4. Adverse reaction should be dealt with as appropriate and as outlined in this guide.

"Safe practice for perfect result"

**Regards,
Dynamic Fascia**