



## Role of massage in competitive sports

### **Introduction**

Massage has been used in sports from time immemorial. Athletes had resorted to massage since the days of the Olympic Games, and the ancient athletes developed a special tool.

### **Basic rules of sport massage**

Before starting on any description of sport massage the basic rules of such a regime must be addressed to:

- 1) Diagnosis
- 2) History
- 3) Contra-indications
- 4) Aim of treatment
- 5) Position
- 6) Materials
- 7) Skin preparation
- 8) Joint position
- 9) Check
- 10) Clean up
- 11) Warn Participants

**1) Diagnosis:** Diagnosis will only apply if massage is being used to treat a sports injury. Many sports massages are classified as specific i.e. not only to treat the particular problem but to help prepare prior to activity, between hours of activity or after activity. Non-specific sports massage is also used to help the body to be in tune.

**2) History:** It is always a good practice to gain a full history, either relevant to a particular problem or previous experience of any reaction to massage.

**3) Contra-indications:** It is vitally important when dealing with sports people to remember the great risk of recent injury being present.

**4) Aim of treatment:** Is the massage to be stimulating or sedative? The aim of treatment will depend on when massage is being administered e.g. Pre or post events.

**5) Position:** It cannot be guaranteed that there will always be a treatment couch available when using massage in sports. Always ensure that therapist is going to be able to perform all necessary techniques with the greatest ease and that the recipient is at all times warm and comfortable.

**6) Material:** Various oils may be used, most commonly vegetable based, ice and non-steroidal anti inflammatory gels.

**7) Skin preparation:** Many sports person have shaved their legs before competition and small nicks are not unusual. Aseptic conditions should apply with absolute cleanliness essential.

**8) Joint position:** At track or pit side is preparing to be innovative and use whatever is available and suitable to obtain the best joint position.

**9) Check:** Always ask the patient if the massage is deep enough, too deep or as they wanted.

**10) Clean up:** Participants cannot enter the competition area covered in oil. Soaps and water are available in the treatment room but not necessarily at pitch side. In this situation wet wipes or an astringent lotion should be available for use.

**11) Warn Participants:** Even if the participants has frequent massages, always warn what to expect as a result of this session e.g. Pre-competition stimulating massage may induce a feeling of warmth but the rules of warm up must still be observed.

### **Massage manipulation in sports massage**

Sports massage can be divided into four types. They are:

- 1) Specific sports massage
- 2) Non-specific sports massage
- 3) Acupressure
- 4) Ice massage

**1) Specific sports massage:** Specific sports massage is given for a particular reason and can be used in six different situations. They are:

- i) Massage in conditioning
- ii) Massage as treatment
- iii) Pre-competition massage
- iv) Inter-competition massage
- v) Post-competition massage

vi) Post travel massage

**i) Massage in conditioning:** The conditioning time of year for any sports person will depend entirely on what their goals are for that particular year. Massage at the time of conditioning plays a very important part in the training regime.

**Objectives of Massage in conditioning are:**

a) To promote recovery from hard training session – It is expected after a hard form of exercise that the sports person will experience various aches, pain and a feeling of tired and heavy limbs. Massage can be invaluable in speeding up recovery at this time.

b) To aid cool down – The objective of the cool down is to return the body to its pre-exercise state as quickly and painlessly as possible.

c) To prevent delayed onset muscle soreness (DOMS) – The soreness after exercise may not be noticed for upto 24 hours after cessation of the activity. DOMS can be positively influence by the application of the correct massage technique.

d) Psychological effect – At the hard time of training for sports person, a massage performed by good knowledgeable practitioner can make a vast difference to their continued well being and can enhanced the benefits of conditioning period.

Contact materials which are used for this massage are Oils and mild warming rubs.

**Routines and manipulation used:**

1) Light effleurage – accustom the person to touch, also test to see if there is any micro-trauma to the soft tissue.

2) Deep effleurage - To promote venous and lymphatic trainings

3) Petrissage - To mobilize the soft tissue.

4) Acupressure – To address any specific tension or trigger spot identified.

5) Stroking – To provide relaxation and aids venous return.

6) Tapotement/Shaking/vibrations – To stimulate and give a feeling of well being.

7) Effleurage – To aid venous and lymphatic return, and to assess the final state of the tissues.

**Method**

Start with the back, then the limbs, concentrating on the muscles most used in the training session and often finished with the foot massage.

**Duration for Massage in conditioning**

Whole body one to one and half hour, body half to three quarter of an hour. This massage can be given on daily basis throughout the conditioning period.

## **ii) Massage as treatment:**

Massage as a treatment for sport injuries can be used after 48 hours if all bleedings and tissue swelling has ceased.

### **Objectives of Massage as treatment are:**

- a) To stimulate circulation - After 48 hours of trauma, it is important to clear away the debris of the incident and remove the excess tissue fluids.
- b) To promote recovery from injury – Massage stimulate circulation and also to ensure the continued good state of surrounding tissue.
- c) To break down Adhesion – Post-trauma results an adhesion of scar tissue in the soft tissue, and it is of great source of trouble in sports person. Massage can play a very important part in the recovery of scar and adhesion formation.
- d) To promote flexibility – Massage can provide a useful adjunct to the essential stretch routines performed by the patient.
- e) To improve the range of movement – A return to full range movement is necessary prior to return to full training and competition. Massage is used extensively to facilitate achieving a full range of movement.

Contact materials which are used for this massage are Oil, cream, heat rub, anti-inflammatory gel or cream.

- 1) Stroking – accustom the sports person to touch and discover any area of sensitivity.
- 2) Effleurage – To promote venous and lymphatic return
- 3) Petrissage - To mobilize soft tissue and induce slight stretch on those tissue, also to reduce muscle spasm.
- 4) Effleurage
- 5) Friction – To mobilize and break down scar tissue.
- 6) Tapotement – It gives a feeling of well being
- 7) Shaking – To relieve muscle tension and cramp.
- 8) Rolling
- 9) Effleurage

### **Methods**

Always massage proximal and then distal area of the body before concentrating on the treatment area proper.

### **Duration for Massage as treatment**

It can be performed for 10 to 30 minutes, the treatment can be used daily depending on patient's level of discomfort, training and competition schedule.

### **iii) Pre-competition massage:**

#### **Objectives of Pre-competition massage are:**

- 1) To prepare muscle for exertion - By increasing the circulation to specific areas and mobilizing soft tissues. Pre-competition massage will make easier to carry out the specific stretch needed for any performance.
- 2) To aid warm up effects – The vasodilatation caused by massage will enhance this phase of physical preparation.
- 3) Psychological effect – The times spend on the massage couch is often used by participants to prepare mentally for the forthcoming action.

Contact materials which are used for this massage are Oils, creams, talcum are all appropriate, but do not use any heating agent.

#### **Routines and manipulation used:**

- 1) Stroking
- 2) Effleurage
- 3) Petrissage
- 4) Tapotement/Shaking/vibration
- 5) Effleurage
- 6) Trigger point acupressure

#### **Duration for Pre-competition massage**

It is done frequently for 20 to 30 minutes but a maximum time of 1 hour.

### **iv) Inter-competition massage:**

#### **Objectives of Inter-competition massage are:**

- 1) To promote recovery
- 2) To refresh the competitor
- 3) To work out niggles
- 4) To prevent muscles cramps and spasm

Contact materials which are used for this massage can be any light oil or soapy water is best, never use any hot rubs

**Routines and manipulation used:**

- 1) Stroking
- 2) Effleurage
- 3) Petrissage
- 4) Acupressure
- 5) Vibration and shaking
- 6) Effleurage

**Duration for Inter-competition massage**

It may be for done only for some minutes or upto an hour. It is best to perform inter-competition massage immediately after cooling down and or prior to the next warming up.

**v) Post-competition massage:****Objectives of Post-competition massage are:**

- 1) To carry away waste products
- 2) To allow body function to return to normal
- 3) To prevent post exercise pain
- 4) To work out niggles
- 5) Psychological effect

Contact materials which are used for this massage are Ice, soapy water, light oil but not any hot rub or talcum.

**Routines and manipulation used**

All manipulations to be used slowly and rhythmically,

- 1) Stroking
- 2) Effleurage
- 3) Petrissage
- 4) Effleurage

**Duration for Post-competition massage.**

It may last from 15 to 30 minutes or may even take a whole hour. This massage is best performed after a cool down and preceded by a tepid shower.

#### **vi) Post travel massage:**

Travel problems highlighted in sports are:

- a) General feeling of stiffness
- b) Feeling of lassitude
- c) Aches, especially in the lower back, neck and shoulders
- d) Swelling of lower leg and feet

#### **Objectives of post travel massage**

- 1) To increase the venous and lymphatic flow
- 2) Gently and deeply to stretch the soft tissues
- 3) To remove any residual stiffness
- 4) To restore the normal balance of the body
- 5) To create a feeling of well being

Contact materials which are used for this massage are Oil or creams. Do not use talcum or hot rubs

#### **Routines and manipulations used**

- 1) Stroking
- 2) Effleurage
- 3) Petrissage
- 4) Effleurage
- 5) Tapotement

#### **Duration for post travel massage.**

A minimum of 30 minutes but may last over an hour. The best results are found after gentle activities such as jog and gentle stretch.

#### **2) Non-specific sports massage:**

Non-specific sports massage can be divided into two applications. They are:

- i) General body massage
- ii) Specific area of massage

#### **i) General body massage**

### **Objectives of General body massage are:**

- 1) To enhance a general feeling of well being
- 2) To promote relaxation
- 3) To stimulate
- 4) To monitor the condition of the musculature and soft tissues
- 5) To highlight and deal with any area which could develop into a problem

Contact materials which are used for this massage is Oil

### **Specific area of massage**

Depend on the muscle groups most used in the particular event, the competitor may request an area of body to receive massage rather than full body, eg. Throwers back and shoulder, Sprinters, hamstring, quadriceps and calf muscles, Distance events and soccer player - calf massage

Duration for Specific area of massage.

It can be performed as long as it is needed to gain the desired effect.

### **3. Acupressure:**

Acupressure/Acupuncture (acu is Chinese for needle) points are stimulated by finger or thumb pressure. There is a complete therapy using the 'tsubos' – specific sensitive points used in acupressure and also shiatsu (in Japanese shi = finger, atsu = pressure) where whole hands, elbows, feet and knees may be used to massage the body (Jarmey & Tindall 1991)

In sports massage acupressure tends to be to specific trigger points. These points are identified as tense, sometimes hard, and always producing pain in the muscles/connective tissue.

Once the point to be treated has been identified, the finger or thumb is used to apply pressure to that specific point. The technique is similar to that used in circular friction but only one finger or thumb tip is used. There are many different opinions as to the length of time the pressure should be held. A firm pressure accompanied with a slight circular motion applied for a maximum of one minute, relaxed and re-applied three or four times, gives good Results. The object is to try to get muscle relaxation in a short time as possible, thus making this technique very useful immediately prior to activity by removing particular spots of muscle/tissue tension. The use of both acupressure and shiatsu in sports is growing and there are many varying theories on the subjects, from basic applications to reduce muscle tensions right up to the complete science of the full holistic concept of Oriental medicine (Downer 1992)

### **4. Ice massage:**

The most convenient method of application of ice massage is to use a polystyrene cup which is filled with water and then frozen. Cut a 1.25 cm ring from the top edge of the cup and then massage the injured area with the ice until an erythma is achieved. If dealing with tendinous or small area an ice cube held in a tissue is best.

## **Conclusion**

Sports massage is sports specific and any therapist involved must know and understand the principle of sports. Most importantly, the rule and call up time of the sports must be understood. Above all these, choosing of the best technique to deliver the desire effect and use them is of great importance.