

# **BPES-601 CARE AND PREVENTION OF SPORTS TRAUMA**

Unit- iv Massage

Unit-v -Sorts injuries, Treatment

# Assignment

- 1. History of massage and techniques.
- 2. Effect of massage.
- 3. Prevention of sports injury.
- 4. first aid for sports injury.

# MASSAGE

- Massage is the manipulation of soft tissues in the body. Massage techniques are commonly applied with hands, fingers, elbows, knees, forearm, feet, or a device.

# Massage techniques

- Effleurage (Stroking)-stroke and is always toward the heart to encourage venous return.
- Petrissage (Kneading)-
- Squeezing
- Picking up
- Shaking
- Rolling
- Wringing

# Physiological and Psychological benefits of massage

- Increase in blood and lymph circulation
- Relaxation and normalization of the soft tissue (muscle, connective tissue, tendons, ligaments), which releases nerves and deeper connective tissues
- Reduced Anxiety
- Increased Relaxation
- Mental alertness
- Improved mind-body connectivity.

# Sports injuries

- Sports injuries are injuries that occur when engaging in sports or exercise.
- Pulled Muscle
- Torn ACL
- Shin Splints
- Sprained Ankle
- Tennis Elbow
- Low Back Pain
- Runner's Knee

# First aid

- **Protection** – protect the affected area from further injury – for example, by using a support.
- **Rest** – avoid exercise and reduce your daily physical activity. Using crutches or a walking stick may help if you can't put weight on your ankle or knee. A sling may help if you've injured your shoulder.
- **Ice** – apply an ice pack to the affected area for 15-20 minutes every two to three hours. A bag of frozen peas, or similar, will work well. Wrap the ice pack in a towel so that it doesn't directly touch your skin and cause an ice burn.
- **Compression** – use elastic compression bandages during the day to limit swelling.
- **Elevation** – keep the injured body part raised above the level of your heart whenever possible. This may also help reduce swelling.

# Application of ice and heat

- Ice is the recommended treatment for acute injuries. It is especially helpful to reduce swelling and control pain. Ice is most effective when it is applied early and often for the first 48 hours.
- Heat, on the other hand, increases circulation and raises skin temperature. For these reasons, it should not be applied to acute injuries, or injuries that show signs of inflammation. Heat is great for sore muscles and joint pain, which are typical of chronic injuries.



# Infrared light and Shortwave diathermy

- Infrared light is one of several innovative therapies that are being trialed for the management of patients with acute or chronic pain. The therapy uses certain wavelengths of light that are delivered to sites of the body that have injuries.
- Shortwave diathermy uses high-frequency electromagnetic energy to generate heat. It may be applied in pulsed or continuous energy waves. It has been used to treat pain from kidney stones, and pelvic inflammatory disease. It's commonly used for conditions that cause pain and muscle spasms such as:
  - sprains
  - strains
  - Bursitis

# Ultrasonic

- Ultrasound therapy is the use of sound waves to treat medical problems, especially musculoskeletal problems like inflammation from injuries (sprains, tendinitis, bursitis). It has been a popular therapy for decades, its use so widespread that it almost defines physical therapy.
- The effect of ultrasound via an increase in local blood flow can be used to help reduce local swelling and chronic inflammation, and, according to some studies, promote bone fracture healing. The intensity or power density of the ultrasound can be adjusted depending on the desired effect.

# STRAPPING

- Strapping with adhesive tape plays a significant part in the prevention of joint injuries, particularly at the ankle and hand, and is important during early management of injury and rehabilitation. Recurrence of injury when the athlete recommences training is less likely with supportive strapping.

# BANDAGES

- Elastic bandage is a "stretchable bandage used to create localized pressure. Elastic bandages are commonly used to treat muscle sprains and strains by reducing the flow of blood to a particular area by the application of even stable pressure which can restrict swelling at the place of injury. Elastic bandages are also used to treat fracture.
- The elastic bandage is then applied to hold the splint in place and to protect it. This is a common technique for fractures which may swell, which would cause a cast to function improperly. These types of splints are usually removed after swelling has decreased and then a plaster cast can be applied.

# Types of Bandage

- bandage is used in combination with a dressing where a wound is present.
- A roller bandage is used to secure a dressing in place.
- A triangular bandage is used as an arm sling or as a pad to control bleeding. It may also be used to support or immobilise an injury to a bone or joint or as improvised padding over a painful injury.
- A tubular gauze bandage is used to retain a dressing on a finger or toe.