







# Participant Handbook

Sector **Sports** 

Sub-Sector

Sports, Fitness and Leisure

Occupation
Sports Masseur

Reference ID: SPF/Q1103, Version 1.0 NSQF Level 4



**Sports Masseur** 

#### **Published by**

ABC Company Ltd. 7, NSDC Marg, New Delhi - 110002 Email: Website:

All Rights Reserved, First Edition, March 2016

ISBN 978-1-111-22222-45-7

Printed in India at XYZ Company New Delhi – 110016

#### Copyright © 2016

Sports, Physical Education Fitness and Leisure Sector Skill Council

Address: AWFIS, 1st Floor, L-29, Outer Circle, Connaught Place, New Delhi – 110 001

Email: ceo@sportsskills.in Phone: 011-65001048

#### Disclaimer

The information contained herein has been obtained from sources reliable to Sports, Physical Education, Fitness and Leisure Sector Skill Council. Sports, Physical Education, Fitness and Leisure Sector Skill Council disclaims all warranties to the accuracy, completeness or adequacy of such information. Sports, Physical Education, Fitness and Leisure Sector Skill Council shall have no liability for errors, omissions, or inadequacies, in the information contained herein, or for interpretations thereof. Every effort has been made to trace the owners of the copyright material included in the book. The publishers would be grateful for any omissions brought to their notice for acknowledgments in future editions of the book. No entity inSports, Physical Education, Fitness and Leisure Sector Skill Council shall be responsible for any loss whatsoever, sustained by any person who relies on this material. The material in this publication is copyrighted. No parts of this publication may be reproduced, stored or distributed in any form or by any means either on paper or electronic media, unless authorized by the Sports, Physical Education, Fitness and Leisure Sector Skill Council.





Skilling is building a better India.
If we have to move India towards development then Skill Development should be our mission.

"

Shri Narendra Modi Prime Minister of India







## Certificate

# COMPLIANCE TO QUALIFICATION PACK – NATIONAL OCCUPATIONAL STANDARDS

is hereby issued by the

SPORTS, PHYSICAL EDUCATION, FITNESS AND LEISURE SECTOR SKILLS COUNCIL

for

**SKILLING CONTENT: PARTICIPANT HANDBOOK** 

Complying to National Occupational Standards of

Job Role/Qualification Pack: 'Sports Masseur' QP No. 'SPF/Q1104 NSQF Level 4'

Date of Issuance: August 6, 2018 Valid up to\*: August 6, 2021

\*Valid up to the next review date of the Qualification Pack or the 'Valid up to' date mentioned above (whichever is earlier) Authorised Signatory (Sports, Physical Education, Fitness and Leisure Skills Development Council)

#### **About this Book**

This Participant Handbook is designed to enable training for the specific Qualification Pack(QP). Each National Occupational (NOS) is covered across Unit/s.

Key Learning Objectives for the specific NOS mark the beginning of the Unit/s for that NOS. The symbols used in this book are described below.

This reference book has been developed for use by participants of the skill development course for a Sports Masseur being implemented by SPEFL-SC through its affiliated training service providers. The contents of this book are completely aligned to the Qualification Pack for the role of a Sports Masseur, NSQF level 4 and has been divided into Units corresponding to each NOS (national Occupational Standard). The contents of the book have been compiled by Mr. Devesh Sharma – Consultant, UNDP

The Sports Masseur is responsible for carrying out massage session on the athlete/normal population under the direct supervision and guidance of a Sports Physiotherapist/ Sports Physician.

## **Symbols Used -**



Key Learning
Outcomes



Tips



Notes



**Unit Objectives** 



Exercise

# **Table of Content**

S.No.	Modules and Units	Page No.
1.	Introduction (SPF/N1108)	1
	Unit 1.1 - Importance of Sports Massage	3
	Unit 1.2 - Sports Massage Women	5
	Unit 1.3 - Massage Therapy Practice	7
	Unit 1.4 - Benefits of Sports Massage	10
	Unit 1.5 - Contradictions and Cautions for Sports Massage	13
	Unit 1.6 - Why do We Need Sports Massage	18
	Unit 1.7 - Organizational Structure in Sports Medicine	20
	Unit 1.8 - Employment Opportunities for Sports Masseur	22
2.	Research on Sports Massage (SPF/N1108)	26
	Unit 2.1 - Research Status	28
	Unit 2.2 - Key Points to Know	30
3.	Human Anatomy: General Overview (SPF/N1108, SPF/N1109)	34
	Unit 3.1 - Human Body Introduction	36
	Unit 3.2 - Body System Overview	38
	Unit 3.3 - Human Anatomy: Difference b/w Male and Female Skeleton	41
	Unit 3.4 - Anatomical Names and Regions	43
	Unit 3.5 - Abdominal Divisions	45
	Unit 3.6 - Anatomical Planes	48
	Unit 3.7 - The Skeletal System	50
4.	Muscle Anatomy (SPF/N1108, SPF/N1109)	<b>62</b>
	Unit 4.1 - Muscle Tissue	64
	Unit 4.2 - Muscles of Human Body	67
5.	Muscle Physiology (SPF/N1108, SPF/N1109)	86
	Unit 5.1 - Muscle Structure, Contractions and Twitch	88
6.	Assessment and Examination (SPF/N1108, SPF/N1109)	93
	Unit 6.1 - Assessment and Examination Steps	95
7.	Basic Concepts of Massage (SPF/N1108, SPF/N1109)	102
	Unit 7.1 - Types of Forces	104
	Unit 7.2 - Muscle Injuries	106
	Unit 7.3 - Ligament Injuries	108
	Unit 7.4 - Cartilage Injuries	110
	Unit 7.5 - Phases of Injuries	112
	Unit 7.6 - Massage Application Strategies	114



S.No.	Modules and Units	Page No.
8.	Preparation of Massage Session (SPF/N1108, SPF/N1109)	119
	Unit 8.1 - Preparation of Massage Session	121
	Unit 8.2 - Preparation of Therapist and Patient/Athlete	124
9.	Massage Techniques (SPF/N1108, SPF/N1109)	129
	Unit 9.1 - Classification of Massage Techniques	131
	Unit 9.2 - Classification of Each Massage Technique	133
	Unit 9.3 - The Effleurage Group	135
	Unit 9.4 - The Petrissage Group	140
	Unit 9.5 - The Percussion Group	150
	Unit 9.6 - The Vibration Group	156
10.	Stretching and Flexibility (SPF/N1110)	161
	Unit 10.1 - Types of Flexibility	163
	Unit 10.2 - Factors limiting Flexibility	165
	Unit 10.3 - Special Considerations in Female During Stretching	167
	Unit 10.4 - Types of Stretching	169
	Unit 10.5 - Benefits of Stretching	175
11.	Hydrotherapy (SPF/N1110)	179
	Unit 11.1 - Therapeutic Uses of Water	181
	Unit 11.2 - Application of Hydrotherapy	184
12.	Employability and Entrepreneurship Skills	197
	Unit 12.1 - Personal Strengths and Value Systems	199
	Unit 12.2 - Digital Literacy: A Recap	213
	Unit 12.3 - Money Matters	217
	Unit 12.4 - Preparing for Employment and Self Employment	224
	Unit 12.5 - Understanding Entrepreneurship	232
	Unit 12.6 - Preparing to be an Entrepreneur	252











# **Unit 1. Introduction**

- Unit 1.1 Importance of Sports Massage
- Unit 1.2 Sports Massage Women
- Unit 1.3 Massage Therapy Practice
- Unit 1.4 Benefits of Sports Massage
- Unit 1.5 Contradictions and Cautions for Sports Massage
- Unit 1.6 Why do We Need Sports Massage
- Unit 1.7 Organizational Structure in Sports Medicine
- Unit 1.8 Employment Opportunities for Sports Masseur

# Key learning Outcomes 💆

### After this module you will be able to understand the:

- 1. Importance of sports massage
- 2. Massage therapy practices most suitable for men and women
- 3. Important considerations for female athletes for sports massage
- 4. Employment opportunities as sports masseur
- 5. Sports medicine structure
- 6. Benefits of sports massage
- 7. Contraindications and cautions of sports massage

# 1.1.1 Importance of Sports Massage

Massage is considered as a method to relax and recondition the individual. Massage is performed for a number of reasons. One of the important segment/classification of massage is "Sports Massage". Techniques of sports massage have been designed in a way to cater/treat the sporting injuries/event preparation and rehabilitation of male and female athletes. Sports massage can be utilized as a tool to relax the athlete post event and sometimes, vigorous sports massage is performed to warm up the athlete. Sports massage is not only limited to athletes/sportspersons, but it is also widely used by individuals who exercise heavily or play sports for recreation. Application of sports massage varies as per the phase in which athlete/individual is participating i.e pre-competition, inter-competition, post competition or in injury rehabilitation phase. Site of application of sports massage can be on-field, massage clinic, or at the athlete's residence.

"Massage Therapy" includes various techniques which the masseur uses and it depends on factors like area to be treated, goal of massage session, phase of injury etc. Common techniques used by the masseur are rubbing, stroking, pressing, and stretching of the soft tissues of the athlete. Masseur uses their hands, fingers, thumb, elbows, and heel to target the focused areas. Focuses areas include the muscles, skin and fascia of the athlete. Particularly, in sports massage long, deep strokes, kneading, circular movements, vibration, shaking, tapping, stretching and cupping methods are used by masseur to grip the muscles, to release the bundles, knots in the muscles. Suitable massage techniques are used with greater force and depth but in case of female athlete or patient, force applied will be lesser than male athlete as muscles in females are easily palpable. Myofascial release technique focusses the muscle and fascia. In certain cases, where athlete needs relaxation after a strenuous exercise/ event, gentle strokes followed by hydrotherapy sessions.

# 1.1.2 History of Massage

History of massage dates thousand years back. There is mention of massage therapy in the ancient literature of China, Japan, India, Arabic nations, Egypt and Rome. During the Renaissance period, massage was widely used in Europe. Massage therapy was introduced in United States by two students studying in Sweden and it was implemented for various health benefits. Due to technical and scientific advances, importance of massage in United States declined in the phase of 1930-1940. Interest in massage therapy was regained in 1970, mainly among athletes and sports persons.

# 1.2.1 Differences in Male and Female Human Body Types

Women are more prone to injuries than men and it is due to the basic differences in their anatomy and physiology. Few are mentioned below:

- o Different hormones, high fat percentage around reproductive organs
- o Greater flexibility (due to looser ligaments) and less powerful muscles
- o A wider pelvis, increased carrying angle at elbow
- o Narrow space in knee joint fro where ACL travels
- o A greater likelihood of inadequate calcium and vitamin D intake

# 1.2.2 Factors that Needs to be Taken Care while Addressing a Female Athlete

Factors which require attention in each phase of injury, in case of female athlete:

- o Menstrual Cycle
- o Female Athlete Triad
- o Anatomical and Physiological Difference
- o Mechanism of Injury

Benefits of massage are same for both male and female athletes, but in case of female athletes, to achieve the maximum psychological benefit, the female athlete should be totally comfortable in terms of safety, accessibility and gender of the masseur. In general, (Indian Scenario) female athletes are more comfortable with female masseurs as they can discuss locations of pain and soreness easily.

# 1.2.3 Cautions and Contraindications Specific to Female Athletes:

- o Female Athlete Triad Syndrome
- Menstrual Cycle
- o Hypermobility of Joints
- o Hyper flexibility of Muscles
- o Secondary Sex Organs (Breasts)
- o Positioning of female athlete
- o Increased intra-abdominal pressure
- o Endometriosis
- o Pelvic Inflammatory Infections
- o Prolapsed uterus and vagina
- Special cases which appears to be contraindications but are not:
  - o Vaginal Discharge (Fungal Infection needs attention)
  - o Menopause (May be helpful during this transition)
  - o Fibroids

# **UNIT 1.4: Benefits of Sports Massage**

# - Unit Objectives 6



### At the end of this unit, you will be able to:

- 1. Understand the physical benefits of massage therapy
- Understand the physiological benefits of massage therapy
- Understand the psychological benefits of massage therapy

## 1.4.1 Physical Benefits of Massage Therapy

**Increase in Blood Pumping:** In the stroking technique, the fluid (metabolic waste) is sucked out of the blood vessels and lymph vessels. A vacuum is created in the vessel which facilitates the easy flow of blood in the vessels and increases the supply of oxygen and nutrients to the working tissues. This in return provides energy to the muscles which helps in their repair mechanism. Adequate blood supply needs to be maintained in a muscle or a tissue to get repaired and right massage technique can easily achieve this feat.

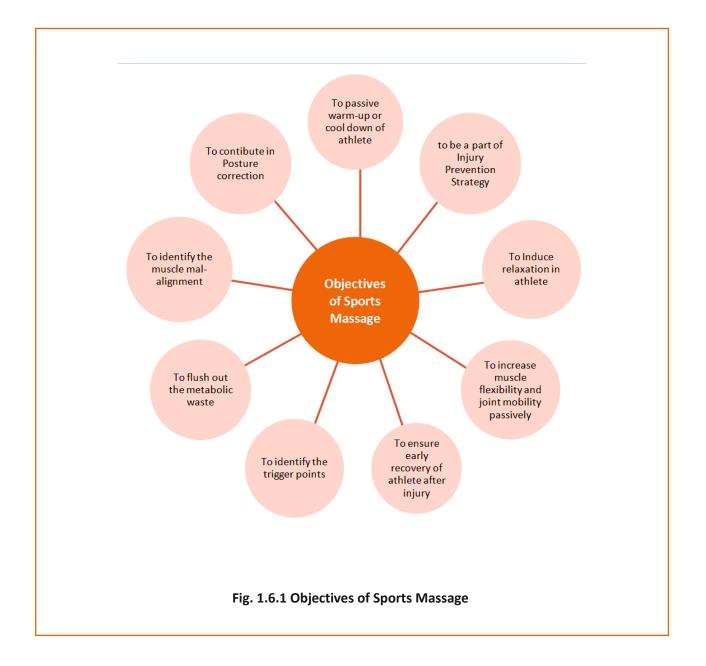
**Increase in Tissue Permeability:** Deep massage strokes lead to the opening of pores of tissue membrane, which allow fluids and nutrients to pass through tissues pass. This helps in removing the metabolic wastes like lactic acid and encourages the muscle's oxygen uptake, nutrition supply and early recovery from injury.

**Soft Tissue Stretching:** Massage can stretch certain tissues which cannot be stretched in a traditional way of stretching. Muscle fibers can be stretched vertically as well as horizontally. Massage can stretch the sheath or fascia around the muscle which in return releases the tension and pressure which was built due to continuous strain or activity of muscle.

**Mobilization/break-down of scar tissue:** Scar tissues develop due to previous injuries/trauma and can negatively affect the flexibility of muscles, skin, fascia, ligament or tendons. Inflexibility in these tissues makes them prone to injuries. Appropriate massage technique over the formed scar tissue can mobilize it and maintain/improve the flexibility of the affected soft tissue.

**Improvement in tissue elasticity:** Vigorous and hard training makes the tissues hypo-mobile, hard and inelastic. Soft tissue release of these muscles will improve their flexibility and mobility caused due to hard and vigorous trainings.

**Open up micro-circulation:** Massage not only increases the blood flow into muscles but it also increases the cutaneous blood supply by opening the skin pores. This increases the skin permeability, improves the sweating mechanisms and opens the pores of sebum leading to improvement in texture of skin.



# 1.7.1 Organizational Structure of Sports Medicine Team

Behind the success of an athlete, there is an entire sports medicine team along with coach. Sports Medicine team is responsible for making strategies related to injury prevention, on-field injury management and rehabilitation of athlete after injury.

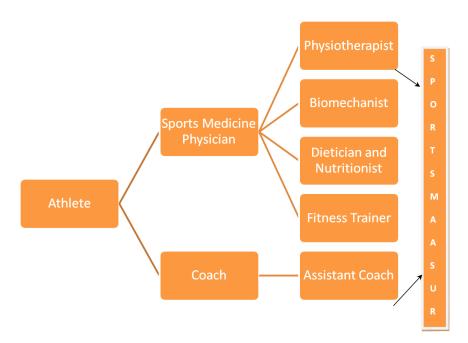


Fig. 1.7.1 Organizational Structure in Sports Medicine

## - 1.8.1 Opportunities for Sports Masseur

With growing healthcare and wellness sectors, requirement of sports masseurs, both men and women is increasing day by day. Athlete care and performance are the key parameters on which federations, Sports Authorities and Olympic associations thrive. Factors like increasing focus on sports as a recreational activity and inclination of general population towards fitness are creating lots of opportunities for the sports masseurs. If we talk in context of employment opportunities for females, special measures need to be taken to draw the attention of females towards this profession. These measures range from start from safety, security and accessibility of training centers for females and creation of safe and sound massage centers for patients and athletes.

#### Look at the pictures below and write Yes (Y) or No (N) in the box.

Where Sports Massage Services are required?



Hotels, Resorts etc.



Gyms and Physiotherapy Clinics



Spa and Wellness Centers



**Sports Academies** 



**Residential Complexes** 



Sports Authorities and **Federations** 

# Tips 4



Sports Masseur is an individual working in health, fitness and wellness sector. He/ She put tremendously hard work with athletes/recreational athletes/general population to promote relaxation, injury prevention, rehabilitation and flexibility.

# Exercise 💮 ——



1.1 What are the roles of a sports masseur?
1.2 What are the benefits of sports massage and its importance among athletes?
1.3 What are the key employment opportunities for sports masseur?
1.4 Write down the 5 contraindications of sports massage.
1.5 Write down the 5 cautions of sports massage.
1.6 Write a short note on "Women and Sports Massage".









# Unit 2. Research on Sports Massage

Unit 2.1 – Research Status Unit 2.2 – Key Points to Know

# Key learning Outcomes

### After this module you will be able to understand the:

- 1. Researches associated with sports massage
- 2. Important considerations to become a sports masseur
- 3. Important considerations in context to difference between male and female masseur and athlete.

# **UNIT 3.1: Human Body Introduction**

# - Unit Objectives 6



### At the end of this unit, you will be able to:

- 1. Understand the basic concepts associated with human anatomy
- 2. Understand bones, cells and tissues of human body in detail
- 3. Understand the human body cavities and types of skeletons

# **3.2.1** Human Body Systems

The Integumentary system consists of hair, skin, nails, sweat and sebaceous glands. The functions of integumentary system are protection of human body, secretion of waste products, production of vitamin D and thermoregulation. It also supports sensory receptors working on passing information to nervous system. The Skeletal System consists of bones, ligaments and cartilages. It produces RBCs, protects and supports them.

The muscular system comprises muscles and tendons. The Functions of muscular system are to produce movements in the body, maintain human body's posture and produce heat.

The nervous system consists of brain, spinal cords, nerves and receptors. Their Functions are to receive sensory information, detect changes and stimulate muscles.

The endocrine system includes glands that secrete hormones. It has many feedback systems to help maintain homeostasis. The glands are:

- 1. Pituitary
- 2. Thyroid
- 3. Parathyroid
- 4. Adrenal
- 5. Pancreas
- 6. Ovaries
- 7. Testes
- 8. Pineal
- 9. Thymus
- 10. Hypothalamus

The cardiovascular system consists of heart, arteries, veins and capillaries. The main function of CVS is to transport blood.

The Lymphatic system includes lymph vessels, lymph nodes, thymus and spleen. The main functions are to return tissues to blood and transport absorbed food molecules to working tissues and defend body against infection.

The respiratory system consists of nasal cavity, lungs, pharynx, larynx, trachea and bronchi. The functions of respiratory system are to supply oxygen to working and non - working tissues. It also eliminates carbon dioxide from body.

The digestive system consists mouth, tongue, teeth, salivary glands, pharynx, esophagus, liver, gall-bladder, pancreas and intestines. The functions of digestive system are to receive, break down and absorb food. It also eliminates metabolic waste products from body.

The urinary system consists of kidneys, ureters, urinary bladder and urethra. Main functions are to remove waste products, maintain water and electrolyte balance, store and transport urine and excretion.

The male reproductive system has scrotum, testes, epididymis, vas deferentia, seminal vesicles, prostate, bulbourethral glands, urethra and penis.

The female reproductive system includes ovaries, uterine tubes, uterus, vagina, clitoris and vulva. Function of the reproductive system is to produce male or female reproductive hormones like testosterone in males and estrogen and progesterone in females. Development of physical and sexual characters is determined by these hormones. External reproductive genitals are used in mating and producing new offsprings.

## 3.5.1 Human Abdomen

The abdomen can be divided into two ways. Division assists us in knowing the exact location of structures which are inside abdominal cavity. One method divides abdomen into 9 sections while other method divides it into 4 sections.

Abdominal area is divided into 9 equal sections and we need to divide abdominal area into 4 planes. There are 2 parasagittal planes and 2 transverse planes. Superior transverse plane is known as trans-pyloric plane and inferior plane is known as trans-tubercular plane. Umbilicus is the center of 9 sections. The 3 superior sections are epigastric, right and left hypochondriac. Umbilical, right and left lumbar are middle sections. Hypogastric, right and left inguinal are lower sections.

In other method, abdominal area consists of transverse and mid-sagittal plane, which intersects at the umbilicus. So, the 4 quadrants are right and left upper quadrants & right and left lower quadrants.

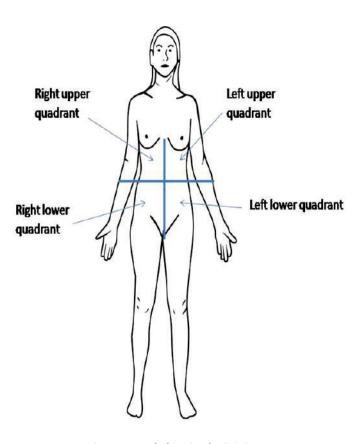


Fig. 3.5.1 Abdominal Division

# 3.7.2 Factors responsible for Bone Growth

The length and height of bones are determined genetically. There are many external factors that affect the bone growth like hormones, nutrition and exercise.

Growth hormones are secreted by anterior pituitary glands. Protein synthesis is promoted by growth hormones and it decides growth of entire body including bones. Thyroxine hormone is released by thyroid gland and it increases osteoblastic activity in bones. Kidneys releases calcitrol and it assist in absorption of calcium in digestive tract. Level of vitamin D decides the synthesis of Calcitrol. Sex hormones that are released by ovaries and testes also assist in increase of osteoblastic activity and hence in bone growth. Vitamins D, C, A, K and B12 are also important for bone growth. Osteoblastic activity and collagen synthesis depends on Vitamin C as well. Vitamin D assist in absorption of calcium in bones that is why deficiency of vitamin D in children causes Rickets and Osteoporosis in adults. Vitamin A increasesosteoblastic activities, whereas vitamin K and B12 are required for protein synthesis in bone cells.

### 3.7.2.1 The Axial Skeleton -

Human Skeleton is divided into 2 sections as discussed in previous sectors. The 2 sections are: The Axial and Appendicular Skeleton. Skull, spine, ribcage and sacrum forms axial skeleton.

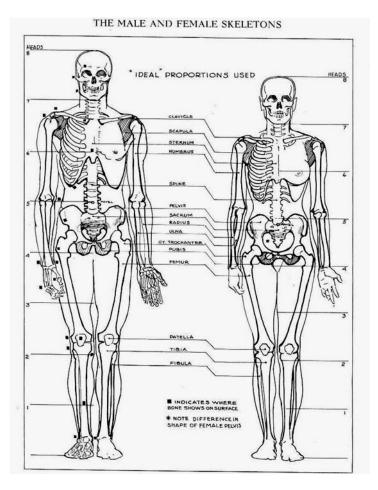


Fig.3.7.4 Human Skeleton (Male and Female)

## - 3.7.3 Human Spine

Human Spine consists of 33 Vertebrae i.e. 7 in cervical region, 12 in thoracic region, 5 in lumbar region, 5 in sacral and 4 in coccyx region.

Spine articulates with head superiorly and inferiorly with sacrum. Cervical Spine consists of 7 vertebrae and 2 unique vertebrae atlas and axis. Thoracic Spine consists of 12 vertebrae and these articulates with ribs.

# 3.7.3.1 Curves in Spine

There are 4 curves in spine. Cervical, thoracic, lumbar and pelvic curves. The cervical and lumbar curves are lordotic curves. Anterior convexity is the characteristic of lordotic curve. Thoracic and pelvic curves are called Kyphotic curves. Kyphotic curves are identified by their posterior convexity. Cervical and Lumbar areas are more mobile than thoracic and pelvic. Kyphotic curves are primary curves as they are present at the time of birth, whereas lordotic curves develop with age and increase with height of human. Lordotic curves facilitate in maintaining position of head over Centre of Gravity (COG), which is front of S2 vertebrae. Excessive increase in lordotic curves at cervical and lumbar spine is called as hyper-lordosis and decrease in curve is called as hypo-lordosis. Increase in curves of thoracic spine is called hyper-kyphosis and decrease is known as hypo-kyphosis. Increase or decrease in curves is due to postural mal-alignment or muscle imbalance. Increase in the lateral curvature of spine is termed as "Scoliosis".

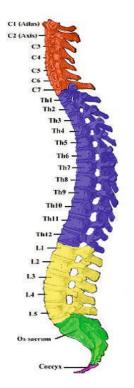


Fig.3.7.5 Spinal Vertebrae

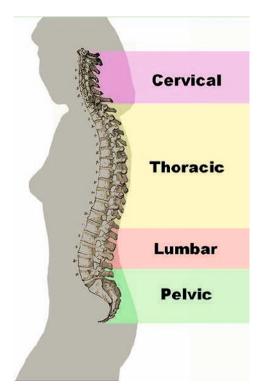


Fig. 3.7.6 Spinal Curves

# 4.1.1 Composition of Muscle -

Muscle tissues are made up of protein. Protein filaments get bundled to form the muscle fibers. Muscle contraction occurs due to sliding of these filaments. And muscle contraction and sliding of filaments happens after receiving signals of nervous system.

There are three types of muscle tissues. Skeletal muscles, cardiac muscles and both are striated because of positioning of filaments in them. Smooth muscles in walls of arteries and digestive system are non-striated.

# - 4.1.2 Muscle Shape -

Muscle shape determines the force of contraction of muscles. There are 3 types of muscle shapes. These are Bipennate, Unipennate and Multipennate. When muscle filaments are arranged in feather form, it is called Bbipennate. When muscle fibres are arranged on one side they are called Unipennate and when fibres are arranged at various places around central tendon called Multipennate.

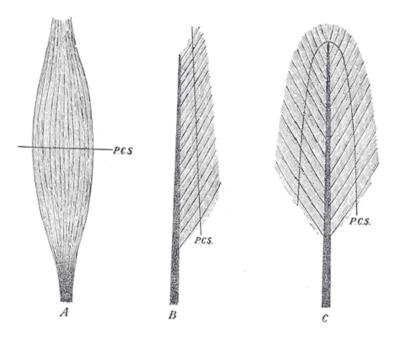


Fig. 4.1.1 Muscle Fibre Type

Fig. 4.1 Muscle Shapes, A. Straight, B. Unipennate, C. Bipennate

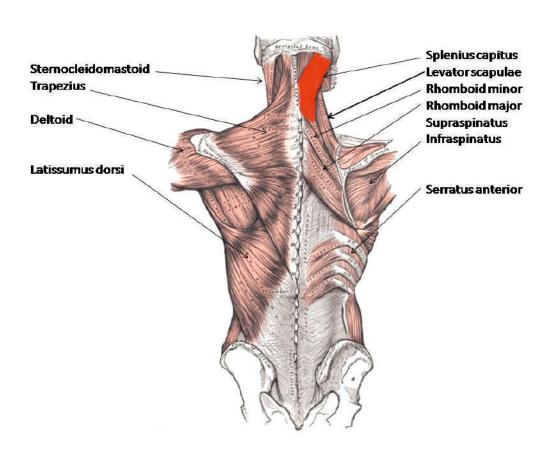


Fig. 4.1.8 Posterior Muscles of Thorax

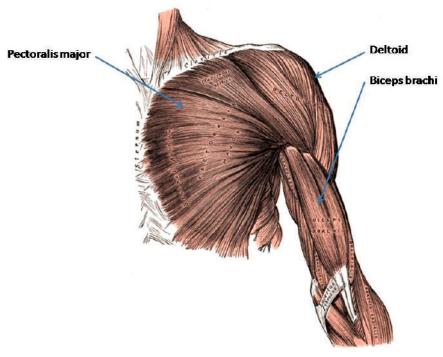


Fig. 4.1.9 Muscles of Anterior Thorax and Arm

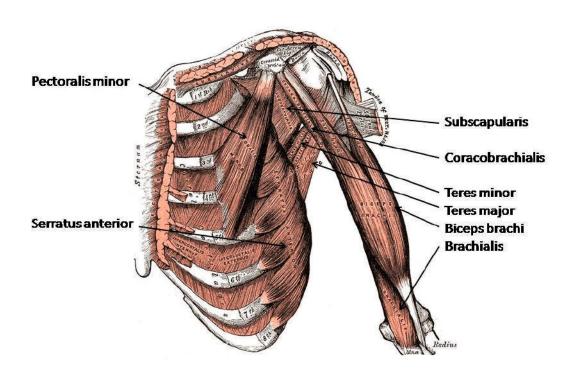


Fig. 4.1.10 Deep Muscles of Thorax and Shoulder

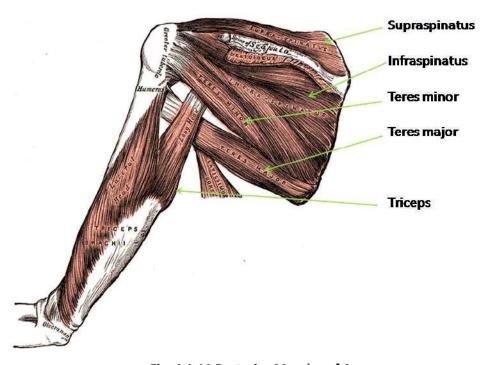


Fig. 4.1.11 Posterior Muscles of Arm

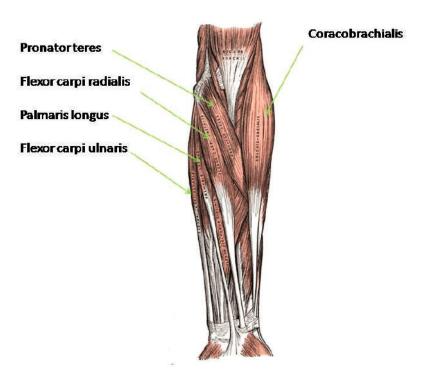


Fig. 4.1.12 Anterior Forearm muscles

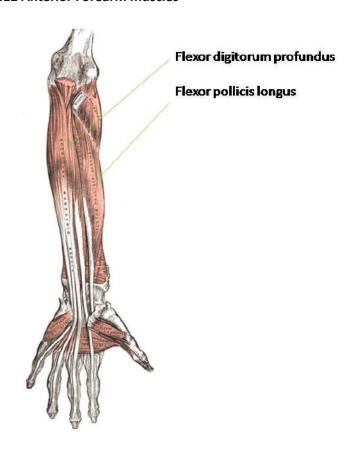


Fig. 4.1.13 Deep Anterior Forearm

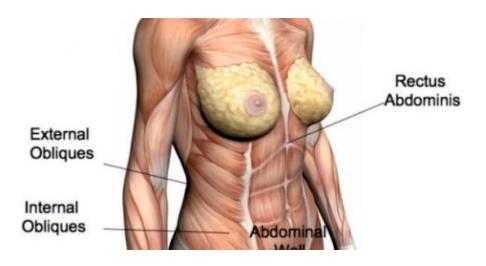


Fig.4.1.16 Superficial Abdominal Muscles

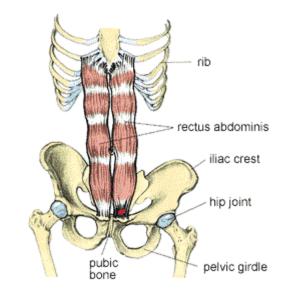


Fig. 4.1.17 Rectus Abdominal Muscle

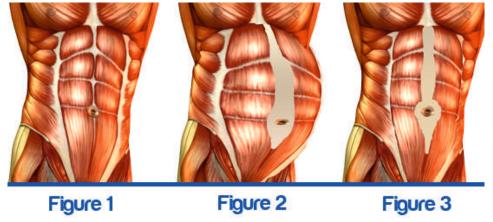


Fig. 4.1.18 Separation of Rectus Abdominis called "Diastasis Recti", seen in post-partum cases. (Seen in Figure 1, 2 and 3)

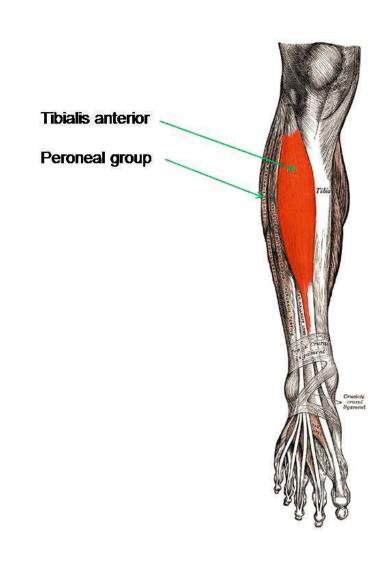


Fig. 4.1.24 Anterior Leg Muscles









# Unit 6. Assessment and Examination

Unit 6.1 – Assessment and Examination Steps

## – 6.1.4 Palpation -

- 1. Tissue temperature
- 2. Obvious deformity
- 3. Swelling
- 4.
- 5. Tone of muscles and skin Look for hypertonicity or hypotonicity of muscles. Palpate the skin tone.

Tender Points Palpate the points, which are painful and grade them accordingly.

- a. Grade 1: The athlete complains of pain.
- b. Grade 2: The athlete complains and winces.
- c. Grade 3: The athlete winces and withdraws the limb.
- 6. d. Grade 4: Athlete does not allow to touch the area.
- 7. Hear the Joint sounds called crepitus.

Abnormal Sensations: Look for anesthaesia, dysthesia and hyperthesia

# 6.1.5 Functional Testing -

- a. Range of Motion
  - i. Active Range of Motion
  - ii. Passive Range of Motion
  - iii. Resisted Isometric Motion
- b. Manual Muscle Testing
- c. Orthopedic Tests: Muscle and Joint Specific
- d. Neurological Tests: Dermatome and Myotome wise

# While Assessing Female Athlete/Patient Following Special Considerations Are Required for the Comfort of Athlete and Masseur:

- 1. Get the consent form signed.
- 2. Explain the procedure of assessment in detail regarding do's and don'ts.
- 3. While finding history, all the components like menstrual cycle, partum history etc. need to be considered and noted.
- 4. In the process of observation, difference in spinal curvature of male and female needs to be checked. Presence of breasts, cellulite in and around thighs, and other women oriented postural deviations should be taken as normal.
- 5. While palpation, application of force, palpation technique, exposure of athlete/patients need different angles apart from males.
- 6. Females are more flexible and have weak muscles so, ROM and manual muscle testing techniques needs to be modified.

# Tips 🖳



- Consent form needs to be signed by patient/athlete.
- Special consideration should be taken while addressing female patient/athlete in terms of safety, security and accessibility.
- $Detailed \, assessment \, form \, needs \, to \, be \, filled \, and \, maintained.$
- $Direct \, supervision \, of \, sports \, physiotherapist/Physician \, is \, required \, in \, first \, few \, visits.$

#### o Hot Packs

Hot packs are also known as hydro-collateral packs. Hydro-collateral packs are silica-gel packs which are immersed in hot water and temperature of 70-80 degrees. Hot packs are available in various sizes as per the body part. Hot packs are taken out of hot water, wrapped in towels and are applied to the body part. Hot packs are applied for the duration of 15-20 minutes. Hot pack relaxes the muscles, gives a soothing effect and induces relaxation.



Fig. 11.2.5 Hydro-collateral Pack



Fig 11.2.6 Hydro collateral Pack Application









# 12. Employability & Entrepreneurship Skills

Unit 12.1 – Personal Strengths & Value Systems

Unit 12.2 - Digital Literacy: A Recap

Unit 12.3 – Money Matters

Unit 12.4 – Preparing for Employment & Self

Employment

Unit 12.5 – Understanding Entrepreneurship

Unit 12.6 – Preparing to be an Entrepreneur



## **Key Learning Outcomes**



#### At the end of this unit, you will be able to:

- 1. Explain the meaning of health
- 2. List common health issues
- 3. Discuss tips to prevent common health issues
- 4. Explain the meaning of hygiene
- 5. Discuss the purpose of Swacch Bharat Abhiyan
- 6. Explain the meaning of habit
- 7. Discuss ways to set up a safe work environment
- 8. Discuss critical safety habits to be followed by employees
- 9. Explain the importance of self-analysis
- 10. Discuss motivation with the help of Maslow's Hierarchy of Needs
- 11. Discuss the meaning of achievement motivation
- 12. List the characteristics of entrepreneurs with achievement motivation
- 13. List the different factors that motivate you
- 14. Discuss the role of attitude in self-analysis
- 15. Discuss how to maintain a positive attitude
- 16. List your strengths and weaknesses
- 17. Discuss the qualities of honest people
- 18. Describe the importance of honesty in entrepreneurs
- 19. Discuss the elements of a strong work ethic
- 20. Discuss how to foster a good work ethic
- 21. List the characteristics of highly creative people
- 22. List the characteristics of highly innovative people
- 23. Discuss the benefits of time management
- 24. List the traits of effective time managers
- 25. Describe effective time management technique
- 26. Discuss the importance of anger management
- 27. Describe anger management strategies
- 28. Discuss tips for anger management
- 29. Discuss the causes of stress
- 30. Discuss the symptoms of stress
- 31. Discuss tips for stress management
- 32. Identify the basic parts of a computer
- 33. Identify the basic parts of a keyboard
- 34. Recall basic computer terminology
- 35. Recall the functions of basic computer keys

# **UNIT 12.1: Personal Strengths & Value Systems**

# **Unit Objectives**



#### At the end of this unit, you will be able to:

- 1. Explain the meaning of health
- 2. List common health issues
- 3. Discuss tips to prevent common health issues
- 4. Explain the meaning of hygiene
- 5. Discuss the purpose of Swacch Bharat Abhiyan
- 6. Explain the meaning of habit
- 7. Discuss ways to set up a safe work environment
- 8. Discuss critical safety habits to be followed by employees
- 9. Explain the importance of self-analysis
- 10. Discuss motivation with the help of Maslow's Hierarchy of Needs
- 11. Discuss the meaning of achievement motivation
- 12. List the characteristics of entrepreneurs with achievement motivation
- 13. List the different factors that motivate you
- 14. Discuss the role of attitude in self-analysis
- 15. Discuss how to maintain a positive attitude
- 16. List your strengths and weaknesses
- 17. Discuss the qualities of honest people
- 18. Describe the importance of honesty in entrepreneurs
- 19. Discuss the elements of a strong work ethic
- 20. Discuss how to foster a good work ethic
- 21. List the characteristics of highly creative people
- 22. List the characteristics of highly innovative people
- 23. Discuss the benefits of time management
- 24. List the traits of effective time managers
- 25. Describe effective time management technique
- 26. Discuss the importance of anger management
- 27. Describe anger management strategies
- 28. Discuss tips for anger management
- 29. Discuss the causes of stress
- 30. Discuss the symptoms of stress
- 31. Discuss tips for stress management

# Tips



- Be aware of what emergency number to call at the time of a workplace emergency
- Practice evacuation drills regularly to avoid chaotic evacuations

# -12.1.3 Self Analysis – Attitude, Achievement Motivation: What is Self-Analysis?

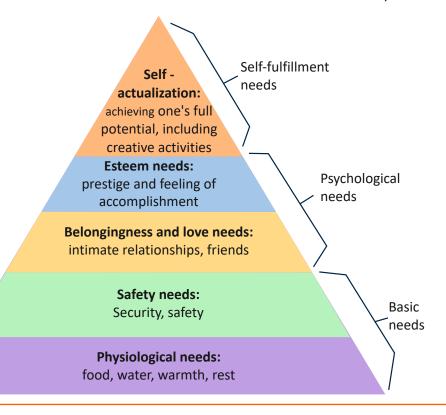
To truly achieve your full potential, you need to take a deep look inside yourself and find out what kind of person you really are. This attempt to understand your personality is known as self-analysis. Assessing yourself in this manner will help you grow, and will also help you to identify areas within yourself that need to be further developed, changed or eliminated. You can better understand yourself by taking a deep look at what motivates you, what your attitude is like, and what your strengths and weaknesses are.

#### What is Motivation?

Very simply put, motivation is your reason for acting or behaving in a certain manner. It is important to understand that not everyone is motivated by the same desires — people are motivated by many, many different things. We can understand this better by looking at Maslow's Hierarchy of Needs.

### Maslow's Hierarchy of Needs

Famous American psychologist Abraham Maslow wanted to understand what motivates people. He believed that people have five types of needs, ranging from very basic needs (called physiological needs) to more important needs that are required for self-growth (called self-actualization needs). Between the physiological and self-actualization needs are three other needs — safety needs, belongingness and love needs, and esteem needs. These needs are usually shown as a pyramid with five levels and are known as Maslow's Hierarchy of Needs.











Not for Sale -

For Internal Circulation only



Address: AWFIS, 1st Floor, L-29, Outer Circle, Connaught Place,

New Delhi – 110 001

Email: ceo@sportsskills.in

Web: sportsskills.in

**Phone:** 011-65001048

CIN No.: 00000000

Price:

