

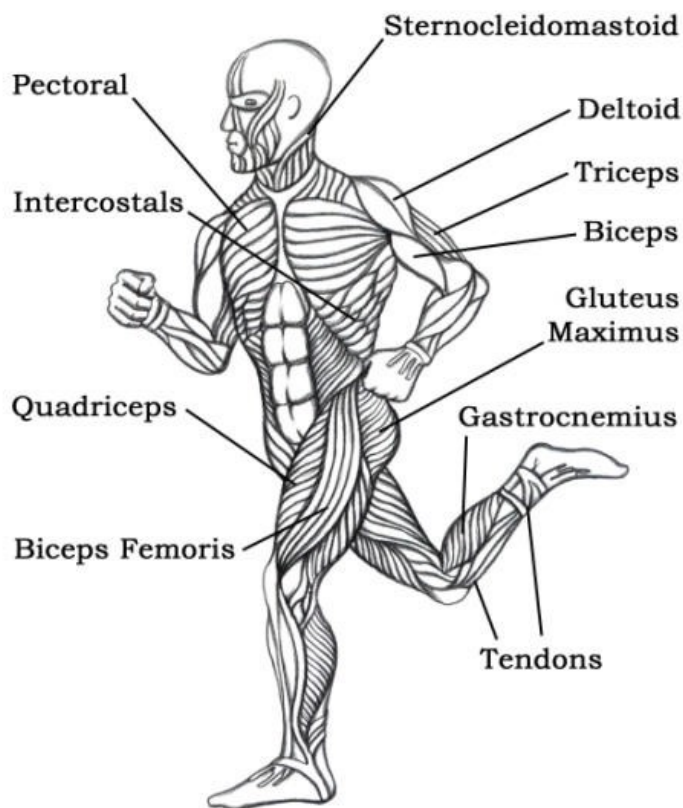
Unit 6 Orthopedic Physiotherapy

Task 1 Human Body

Look at the diagram and study the main muscles of the body.
Define which muscles have the following functions:

- lowers the arm.
- turn the upper half of the body and are between the ribs.
- straighten the knees.
- extend the thigh or bend the knee.
- rotates the head.
- raises the upper arm.
- raise and lower arms.
- straightens the hip joint and holds the body upright.
- helps to stand on toes.

Some Important Skeletal Muscles



(Source of picture: <https://www.youtube.com/watch?v=PBLUS34SBYQ>)

Task 2 Reading - Orthopedic physical therapy

Fill in the missing letters and you will get the techniques used in orthopedic physical therapy:

el...ct...ic st...m...lat...on

...ltr...so...n...

s...r...tc...in...

...tr...ng...he...ing

i...e t...er...p...

Orthopedic physical therapy focuses on the problems of the muscular skeletal system (muscles, bones, ligaments or tendons). It deals with diagnosing, managing and treating injuries and problems and rehabilitating right after orthopedic operations, as well. Orthopedic therapy workers function particularly in treating post-operative joints, injuries due to sporting activities, arthritis and amputations.

Orthopedic physical therapy is very important for restoring the patients' activity, strength and motion right after injuries or surgery. You can find a number of things therapists can do in orthopedic physical therapy and there are lots of rehabilitation tools that they have on hand. Among these we should mention: stretching, strengthening, ice and heat therapy (hot and cold packs), electrical stimulation, ultrasound, etc.

Stretching is necessary if a patient has a stiff joint which can affect normal activities severely. Proper stretching exercise can assist to preserve such functions. To help a patient in improving the function of his/her muscles, increasing endurance and maintaining or improving the range of motions strengthening workouts are used.

The ice and heat therapy warm up and cool off muscles and contribute to the stimulation of blood circulation and assist to decrease swellings, as well. By using an ultrasound probe, deep tissues are stimulated and warmed while the blood flow will improve.

(adapted from <http://physical-therapy-treatment.com/orthopedic-physical-therapy.html>)

Answer the questions:

Which problems does orthopedic physiotherapy focus on?

Which conditions is it required for?

What are the main orthopedic instruments?

When are stretching exercises necessary?

How is ice and heat therapy used?

Find the words which mean the following in the text:

- tissue connecting a muscle to a bone
- inflammation of a joint (symptoms – pain, swelling, stiffness)
- the process of lengthening or widening
- movement of blood (2)

Task 3 Match groups of conditions with their headings below:

General Conditions

Shoulder Injuries

Elbow Injuries

Wrist Injuries

Neck and Low Back Injuries

Knee Injuries

Ankle Injuries

Foot/Toe Injuries

Group 1

- Golfer's elbow (medial epicondylitis)
- Tennis elbow (lateral epicondylitis)
- Sprain/strain
- Fractures

Group 2

- Plantar fasciitis (heel pain)
- Tarsal tunnel syndrome
- Sprain/strain
- Fractures/stress fractures

Group 3

- *Osteoarthritis*: Degenerative joint disease (DJD); progressive destruction of articular cartilage and the formation of bone at the margin of the joint.
- *Osteoporosis*: A group of disorders, which have as their common denominator, a reduction of bone mass per unit of bone volume.
- *Fibromyalgia*: Chronic muscle pain syndrome with no known cause or cure, considered "inflammation of the soft tissue"; body and muscle aches often accompanied by overwhelming fatigue and pelvic pain; symptoms may wax and wane with no discernible cause

Group 4

- Rotator cuff tear (operative or non-operative)
- Dislocation
- Tendinitis
- Fracture

Group 5

- Sprain/strain
- Disc herniation
- Muscle spasm
- Posture
- Coccygodynia: refers to pain in and around the region of the coccyx or tailbone.

Group 6

- Achilles' tendonitis (Achilles' heel)
- Sprain/strain
- Fractures

Group 7

- Patellofemoral syndrome
- ACL tear (operative or non-operative)
- Meniscus tear (operative or non-operative)
- Tendinitis
- Total knee replacement

Group 8

- Carpal tunnel syndrome
- Sprain/strain (conservative or post-operative)
- Fractures

(<http://www.beyondbasicsphysicaltherapy.com/sports.shtml>)

Choose one of the conditions, describe it and suggest suitable treatment. Discuss in pairs.

Task 4 Listening

Watch the video and fill in the blanks:

(<http://www.youtube.com/watch?v=t7rsPgxaoDY>)

The knee is comprised of the top bone which is the _____ which makes a _____ with the bottom bone which is the _____.

In between these two bones is the cartilage or the _____ of the knee.

Enveloped in the tendon is the _____.

The patella has to move up and down the groove as we _____ and _____ the knee.

It's important for the muscles around the knee like the _____ and the _____ muscle to have a balance between their strength and flexibility.

After you watch:

What can you say about the structure of the knee?

What is important for the health of the knee?

Do you know any exercises for the knees?

Task 5 GRAMMAR - Revision of tenses

Study the examples below and then write your own sentences:

MY LIFESTYLE...

1. Present Simple

I eat out a few times a week.

2. Present Continuous

I am trying to lose weight these days.

I'm cooking dinner for a few friends tonight.

3. Past Simple

I had a tuna salad for lunch yesterday.

4. Past Continuous

I was preparing this fantastic fish dish when I found out we had run out of lemons.

I wasn't eating healthily when I was living in Ireland.

5. Present Perfect Simple

I've already had three cups of coffee today. How many have you had?

6. Present Perfect Continuous

I've been practising yoga for 10 years now. How long have you been doing it?

7. Past Perfect

I had been a few kilos overweight before I changed my lifestyle in adulthood.

8. Future

I think I will feel better if I give up eating junk food.

9. Future Perfect

I will have lost 5 pounds by the end of this year.

10. Going to

I'm going to eat regularly, healthily and stick to a balanced diet – starting tomorrow!