

Unit 1

THE MUSCULOSKELETAL SYSTEM

A. Warm-up

A. In pairs or small groups answer the questions below.

1. What do we need the musculoskeletal system for?
2. What structural elements of the musculoskeletal system help us to do it?
3. What other systems does the musculoskeletal system cooperate with, how and what for?

B. Compare and discuss your answers with other pairs in your group to sum up your "shared knowledge".

B. Reading and Vocabulary Building

Task 1

Study the musculoskeletal system anatomy related vocabulary. For each fragment complete the text with the words given in the boxes and then answer the question(s).

Vocabulary

musculoskeletal system układ mięśniowo-szkieletowy

PART ONE

blood • shape • locomotor • internal organs • stability • form • minerals • movement

The musculoskeletal system (also referred to as the system) is an organ system which performs a number of important functions. The latter include giving and to the human body, supporting and protecting and tissues, providing for and of the human body, producing for the body and storing

What are the five functions of the locomotor system?

PART TWO

bones • ligaments • cartilage • musculoskeletal • muscles • structure • site • tendons • tissue • firm • allow • joints

The system is made up of bones,, cartilage,, ligaments and joints accompanied by other connective Bones are connected to other and muscles by means of tendons and While bones provide a and concrete to the body, muscles keep bones in place and for their movement. The latter is possible thanks to the fact that individual bones are connected by while friction on the of bone junction is prevented, among others, by a layer of

1. What holds bones to one another? What holds bones to muscles?
2. What is the difference in the function between bones and muscles?

PART THREE

trunk • extremities • skeletal • axial • skeleton • complex

Vocabulary

referred to nazywany
shape kształt
give shape to sth nadać czemuś kształt
perform spełniać, wykonywać
support wspierać,
podtrzymywać
protect chronić
tissue tkanka
provide for sth zapewnić coś
movement ruch
store magazynować,
przechowywać
be made up of sth składać się,
być zbudowanym z czegoś
muscle mięsień
ligament więzadło
tendon ścięgno
cartilage chrząstka
be connected to sth być
połączonym z czymś
by means of sth za pomocą
(czegoś)
provide zapewniać, dawać,
zabezpieczać
thanks to the fact that ... dzięki
temu, że ...
while natomiast, podczas gdy
friction tarcie
on the site of sth na miejscu
czegoś
prevent zapobiec, powstrzymać
layer warstwa

5. Can you explain how muscles work together to produce movement?

Task 4

Recap the contents of the passage.

Task 5

Complete the text with the vocabulary given in the boxes.

PART ONE

structures • bones • organs • system • injuries • vessels • accidents

Musculoskeletal injuries can involve muscles,, tendons and ligaments. They are mainly due to minor or major which may affect not only musculoskeletal but also neighbouring, blood and nerves and thus the function of body systems and the organism as a whole. Musculoskeletal include fractures, dislocations, ruptures, sprains and strains.

PART TWO

threat • ability • blood (2) • affected • life-threatening • damaged • constitute • impairment • supply • broken • injury • loss

A **fracture** is a broken bone. Most fractures are not in themselves but they can a danger to the patient's life when nearby organs, vessels and/or nerves get injured or An injury or damage to an organ can generate an immediate or delayed to the patient's life, for instance, when the bones of the skull or the ribs are An injury to or rupture of a blood vessel can result in a severe of (haemorrhage) or a reduced, insufficient blood to some area (ischaemia) while an to or rupture of a nerve can lead to a more or less severe of the body function, including the to speak or move.

PART THREE

severe • flow • capsule • partial • extensive • result • head • move • associated • socket • dislocation • occurs

A **dislocation** when a bone or bones out of their normal position in a joint, with the of the bone being as a result completely out of the When the head of the bone has moved only partly out of the socket, we speak of a dislocation or **subluxation**. In more cases, ligaments may be torn, the joint damaged. Damage to the nerves may lead to more or less, loss of sensation and paralysis. Shoulder belongs to the most common.

A **rupture** occurs when a tendon, a ligament, a blood vessel or a nerve are ruptured or torn which may in an impairment of movement, blood or communication.

PART FOUR

area • twisted • pain • susceptible • damage • include • sudden • muscle • inability • pulled • lifting

A **strain** occurs when a, ligament or tendon is modestly or overstretched due to a movement or of something heavy.

A **sprain** occurs when a joint is forcibly which usually entails to muscles, tendons, nerves and/or blood vessels in the The ankle joint, the wrist joint and the lower back are most to sprains.

Symptoms of injuries or damage to the musculoskeletal system swelling, stiffness or rigidity, bruising, deformity, discoloration, pain on movement and to move.

Vocabulary

capsule torebka
subluxation podwichnięcie,
nadwichnięcie

Task 6

Decide whether the following statements are true or false. Correct the false ones and expand on the correct ones. In a conversation with your neighbour justify your choice in the context of the text read.

1. Injuries to the musculoskeletal system do not usually affect other organ systems.
2. Blood vessels are too well protected to be torn as a result of a bone fracture.
3. A fracture may lead to a neurological deficit.
4. Dislocation is merely a painful experience.
5. We should take care not to make rapid movements or overexert ourselves.
6. Symptoms of injuries to the musculoskeletal systems are easy to recognize and diagnosis easy to make.
7. Subluxation is a complete separation of bones within a joint.
8. Sprains and strains require immediate medical assistance.
9. Rupture of a blood vessel frequently leads to a haemorrhage.
10. Damage of nerves may result in paralysis.

Task 7

Answer the questions concerning musculoskeletal system injuries.

1. Can you mention the main disorders/emergencies that may affect the skeleton, joints and muscles?
2. What are the common methods used to recognize disorders of the skeleton and the muscles?
3. What major and associated organs of the musculoskeletal system may be affected due to accidents?
4. Can you think of at least five musculoskeletal system injuries?
5. How would you define a fracture?

6. In what circumstances may an injury prove life-threatening?
7. What is the difference between a dislocation and a subluxation?
8. What is the most common joint dislocation?
9. How may the victim be affected in more severe cases?
10. What is rupture and what may it result in?
11. What causes a strain?
12. What is a sprain and what parts of the body are most susceptible to sprains?
13. What are the common symptoms of musculoskeletal injuries?

D. Vocabulary Practice

Task 8

Report on the circumstances of the accident as given by the victim.

1. 'I tripped on the stairs when running to open the door.'

The patient reports tripping on the stairs when running to open the door.

2. 'I slipped and fell on an outstretched hand.'

The patient reports

3. 'I tried to lift an armchair and then I felt an excruciating pain in the back.'

The patient reports

4. 'I sort of bounced back when I hit the car in front of me and I felt something sort of crunch in my neck.'

The patient reports

5. 'The last thing I remember is my head spinning. Then I came round and I had no feeling in my legs.'

The patient reports

6.
Consciousness? No, I didn't lose it. At least I don't think so. But I did feel sort of dizzy.

7.
I was at the gym doing inclined bench presses. After finishing I was about to put the bar back in place and missed. The bar fell and I felt the snapping sound of a broken bone in my right shoulder.

8.
I was bitten on my left hand by the family dog. Later on my hand became red, slightly swollen, and warm to touch.

9.
While I was rollerskating, I suddenly slipped and fell over on my left flank. Then I heard a snap and felt excruciating pain in my left wrist.

10.
The patient reports numbness in her index and middle fingers.

Task 13

Following the example give your presumptive diagnosis using the professional terms given below.

Colles' fracture • multiple fracture • intra-articular fracture • open (compound) fracture • crush (comminuted) fracture • simple (closed) fracture • dislocated fracture • a sprained ankle • spinal injury or spinal cord damage

1. The humerus seems to be broken but it doesn't show on the surface.

I suspect a *simple (closed) fracture* of the humerus.

2. The victim says he has fallen on an outstretched hand.

I suspect

3. The bones of the joint seem to be broken.

I suspect

4. The bones of the leg seem to be broken in a few places.

I suspect

5. A broken bone can be seen on the surface of the forearm.

I suspect

6. The pelvis seems to be broken into many pieces, simply crushed.

I suspect

7. The leg is obviously broken but there is no bone visible on the surface.

I suspect

8. The victim's leg is lying in a distorted position. The bones seem to be shifted out of place.

I suspect

9. The victim's foot is twisted onto its outside edge.

I suspect

10. The casualty says he has fallen awkwardly while trampolining and his limbs feel "clumsy" and "stiff".

I suspect

E. Listening Practice & Dialogue Completion

Task 14

Listen and complete the dialogues between the caller (C) and the dispatcher (D).

Recap the information for the ambulance crew to be sent to the site of the accident.

Dialogue 1

2 

C: Emergency? My husband has off a ladder. He must have his leg. He's moaning with He can't I can't move him.

D: Can I have your name, please?

C:

D: What's your address?

C:

Dialogue 2

3 

C: Please, send an ambulance. There's been an accident.

D: Who's calling? Can I have your name, please?

C: I'm

D: And where are you calling from?

C: From my mobile.

D: I mean the address of the accident.

C: Oh

D: And what has happened? A road accident? How many people are injured?

C: Two cars One drove into a lamp post. There's people in one car and just the in the other. They are and there's a lot of They must be

Task 15

Complete the dialogue. Decide whether the statements which follow are true (T) or false (F).

C: Emergency? Can you help me? I'm alone at home and I can't move.

D: your name, please.

C: Grace Smith.

D:, Ms Smith?

C: 34 Willow Crescent. Can you send an ambulance?

D: Now tell me.....?

C: I don't know. I was in the kitchen and the next moment I was on the floor and I just couldn't get up.

D: move your limbs?

C: It's my left leg and hip I can't shift them to get up. It's too painful.

D: you, Grace?

C: Seventy five. You'll send someone to my house, won't you?

D: Yes. Just relax. Don't even try to We'll be with you

True or false?

1. It's a call from the victim's neighbour.
2. The victim says she slipped and fell.
3. The victim may have a broken limb.
4. The victim can get up.
5. The victim is an elderly person.
6. The victim does not need emergency assistance.