

Unit 4 Muscular system and injuries

Task 1 Muscles typology

a) Ask about the missing information in the introductory paragraph:

You've got muscles in your body, and they make up of your bodyweight. These muscles can be divided into All of these muscles can stretch and contract, but they perform

b) Complete the gaps with either active or passive forms of the verbs in brackets:

Skeletal muscle

The tissue most commonly (think) of as muscle is skeletal muscle. Skeletal muscles cover your skeleton, giving your body its shape. They (attach) to your skeleton by strong, springy tendons or directly (connect) to rough patches of bone. Skeletal muscles are under voluntary control, which means you consciously control what they do.

Just about all body movement, from walking to nodding your head, (cause) by skeletal muscle contraction. Your skeletal muscles function almost continuously to maintain your posture, making one tiny adjustment after another to keep your body upright. Skeletal muscle is also important for holding your bones in the correct position and (prevent) your joints from dislocating. Some skeletal muscles in your face are directly attached to your skin. The slightest contraction of one of these muscles (change) your facial expression.

Skeletal muscle (generate) heat as a by-product of muscle activity. This heat is vital for maintaining your normal body temperature.

Smooth Muscle

Smooth muscle (find) in the walls of hollow organs like your intestines and stomach. These muscles work automatically without you being aware of them. Smooth muscles (involve) in many 'housekeeping' functions of the body. The muscular walls of your intestines contract to push food through your body. Muscles in your bladder wall contract to expel urine from your body. Smooth muscles in a woman's uterus (or womb) help to push babies out of the body during childbirth. The pupillary sphincter muscle in your eye is a smooth muscle that (shrink) the size of your pupil.

Cardiac Muscle

Your heart (make) of cardiac muscle. This type of muscle only exists in your heart. Unlike other types of muscle, cardiac muscle never gets tired. It (work) automatically and constantly without ever pausing to rest. Cardiac muscle contracts to squeeze blood out of your heart, and relaxes to fill your heart with blood.

(http://www.bbc.co.uk/science/humanbody/body/factfiles/skeletalsmoothandcardiac/orbicularis_oris_animation.shtml)

Task 2 Listening - The benefits of good posture

(<https://www.youtube.com/watch?v=OyK0oE5rwFY>)

Watch the video and answer the questions below:

- Why is good posture important?
- What does bad posture cause?
- What does good posture look like?
- What can we do to improve our posture?

Now explain the meaning of the following expressions:

slouch – awkward position – wear and tear on ligaments – likelihood – exclusive cause - efficient - fatigue

Task 3 Injuries - general

Complete the gaps with the expressions from below:

bleed blister bruise grazed injuries pain scab scalded scar scratch sprained sting swollen wound

1. People with haemophilia _____ easily.
2. The operation only left a small _____.
3. The _____ turned blue then yellow and is slowly disappearing.
4. Are you in _____? Yes, it hurts a lot.
5. Look where the cat _____ me. It's bleeding a bit but a _____ has already started to form.
6. His _____ are fairly minor. He only _____ his both knees when he fell down.
7. This _____ is a result of being stabbed with a knife on purpose.
8. My ankle is very _____, I have probably torn some ligaments.
9. I was wearing the new shoes the whole day and now I have a horrible _____ on my foot.
10. I've _____ my wrist, it is hurting terribly.
11. He _____ his hand when he accidentally spilled some boiling water from the kettle.
12. Be careful or that wasp will _____ you.

Task 4 Injuries

a) Check the pronunciation of these words:

inflammation - concussion – contusion – fracture – meniscus – cartilage – severe - chronic

b) Study the list of injuries below. Do you know their Czech equivalents? Which of the injuries have you suffered? Which are most serious? Can you estimate the time needed for recovery after some of the injuries?

Achilles Tendinitis

The Achilles tendon attaches the muscles of the lower leg (gastrocnemius and soleus) to the heel. Achilles tendinitis is inflammation of this tendon generally caused by overuse or a direct blow.

Concussion

A concussion is caused by a direct blow to the head. Depending upon the severity of the concussion, injury can cause varying levels of **impairment** of brain function. Concussions are categorized as mild (grade 1), moderate (grade 2), or severe (grade 3) depending upon symptoms.

Contusion

A contusion is basically a deep bruise that is caused by direct **impact**.

Dislocation

A dislocation occurs when the ball of a joint is forced out of its socket (i.e. arm forced out of the shoulder joint). A dislocation must be **reset** by proper medical professionals.

Fracture

A fracture is a break, crack, or shattering of a bone. In closed fractures, the broken bone does not **pierce** the skin, while in open fractures, the broken bone breaks the skin's surface.

Meniscus Injuries

The medial and lateral menisci are the cartilage shock absorbers located inside the knee joint. These can be damaged by **excessive** twisting, turning, or compression at the knee joint, which produces tears. Due to the poor blood supply, meniscal injuries generally require surgery for repair.

Sprain

This is an injury that involves the stretching, partial tearing, or complete rupture of a ligament. Sprains are categorized as first, second, or third degree. Sprains occur when a joint is forced beyond its normal range of motion, such as turning or rolling your ankle.

Strain

Strains are injuries that involve the stretching, **partial** tearing, or complete tearing of a tendon. Strains are categorized as first, second, or third degree. Chronic strains are injuries that gradually build up from overuse or repetitive stress.

c) Complete the gaps with the expressions highlighted above, change the form if necessary:

The operation was only a success.

Renal needs to be treated urgently.

If your bone is broken, you need to see a professional to have it

..... exercise can lead to muscle strain.

The needle his skin.

Swimming is a low- sport – there is little stress on joints.

Task 5 Health and Illness

a) Speaking

1. What is the difference between being healthy and being fit?
2. What is the difference between a disease and an illness?
3. What does it mean when somebody says that they are “sick”?

b) Match words to make collocations:

feel	stroke
catch	arthritis
develop	health
suffer	sick
poor	flu

c) Choose the correct word to complete each sentence:

1. Her condition (deteriorated/ improved) and she died.
2. He (relapsed/ recovered) and was allowed to go home from hospital.
3. The patient made a full..... (recovery/ remission).
4. I have been in(poor/ good) health for months and feel very fit.
5. It was a month before I(got over/ got better) the illness.
6. He seems to be rather (unhealthy/ unwell) – his diet is bad and he never exercises.
7. He is being (treated/ healed) for a rare skin disease.
8. He made wild claims about being able to (heal/ cure) cancer.
9. I’ve broken my leg, but the doctor says it’s a clean break, so it should (heal/ cure) easily.

(adapted from Glendinning, Howard: Professional English in Use – Medicine. Cambridge University Press, 2007.)

d) True or false?

1. Mumps and chicken pox are childhood diseases.
2. AIDS has been eradicated from the world.
3. Diabetes is a contagious disease.
4. Parkinson’s disease is hereditary.
5. Flu is preventable.
6. Migraine is an incurable disease.
7. Congenital disorders are conditions existing at or before birth.

e) Give examples of:

acute/chronic/ serious/ mild/ degenerative/ occupational/ mental/ obscure/ deadly diseases