

II Ogólnopolska Olimpiada

JĘZYK ANGIELSKI W NAUKACH MEDYCZNYCH

Zespół Języka Angielskiego

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PAPER 2 – READING

READING ONE

Task 1. Read the following text. Then decide if the sentences are true (T) or false (F).

Uncanny Medical Treatments of the Past by Dan Greenberg

Adapted from: metal_floss magazine

TEXT 1. MALARIA THERAPY

Ah, if only we were talking about a therapy for malaria. Instead, this is malaria as therapy—specifically, as a treatment for syphilis. There was no cure for the STD until the early 1900s, when Viennese neurologist Wagner von Jauregg got the idea to treat syphilis sufferers with malaria-infected blood. Predictably, these patients would develop the disease, which would cause an extremely high fever that would kill the syphilis bacteria. Once that happened, they were given the malaria drug quinine, cured, and sent home happy and healthy. The treatment did have its share of side effects—that nasty sustained high fever, for one—but it worked, and it was a whole lot better than dying. In fact, Von Jauregg won the Nobel Prize for malaria therapy, and the treatment remained in use until the development of penicillin came along and gave doctors a better, safer way to cure the STD.

TEXT 2. CHEMICALLY INDUCED SEIZURES

Nobody ever said doctors had flawless logic. A good example: seizure therapy. Hungarian pathologist Ladislav von Meduna pioneered the idea. He reasoned that, because schizophrenia was rare in epileptics, and because epileptics seemed blissfully happy after seizures, then giving schizophrenics seizures would make them calmer. In order to do this, von Meduna tested numerous seizure-inducing drugs (including such fun candidates as strychnine, caffeine, and absinthe) before settling on metrazol, a chemical that stimulates the circulatory and respiratory systems. And although he claimed the treatment cured the majority of his patients, opponents argued that the method was dangerous and poorly understood. To this day, no one is quite clear on why seizures can help ease some schizophrenic symptoms, but many scientists believe the convulsions release chemicals otherwise lacking in patients' brains. Ultimately, the side effects (including fractured bones and memory loss) turned away both doctors and patients.

TEXT 3. HYSTERIA THERAPY

Once upon a time, women suffering from pretty much any type of mental illness were lumped together as victims of hysteria. The Greek physician Hippocrates popularized the term, believing hysteria encompassed conditions ranging from nervousness to fainting fits and spontaneous muteness. The root cause, according to him, was a wandering womb. So, whither does it wander? Curious about Hippocrates' theory, Plato asked himself that very question. He claimed that if the uterus "remains unfruitful long beyond its proper time, it gets discontented and angry and wanders in every direction through the body, closes up the passages of the breath, and, by obstructing respiration, drives women to extremity." Consequently, cures for hysteria involved finding a way to "calm down" the uterus. And while there was no dearth of methods for doing this (including holding foul-smelling substances under the patient's nose to drive the uterus away from the chest), Plato believed the only sure-fire way to solve the problem was to get married and have babies. After all, the uterus always ended up in the right place when it came time to bear a child. Although "womb-calming" as a psychiatric treatment died out long ago, hysteria as a diagnosis hung around until the 20th century, when doctors began identifying conditions such as depression, post-traumatic stress disorder, and phobias.

TEXT 4. PHRENOLOGY

Around the turn of the 19th century, German physician Franz Gall developed phrenology, a practice based on the idea that people's personalities are depicted in the bumps and depressions of their skulls. Basically, Gall believed that the parts of the brain a person used more often would get bigger, like muscles. Consequently, these pumped-up areas would take up more skull space, leaving visible bumps in those places on your head. Gall then tried to determine which parts of the skull corresponded to which traits. For instance, bumps over the ears meant you were destructive; a ridge at the top of the head indicated benevolence; and thick folds on the back of the neck were sure signs of a sexually oriented personality. In the end, phrenologists did little to make their mark in the medical field, as they couldn't treat personality issues, only diagnose them (and inaccurately, at that). By the early 1900s, the fad had waned, and modern neuroscience had garnered dominion over the brain.

TEXT 5. LOBOTOMY

Everybody's favorite psychiatric treatment, the modern lobotomy was the brainchild of Egas Moniz, a Portuguese doctor. Moniz believed that mental illnesses were generally caused by problems in the neurons of the frontal lobe, the part of the brain just behind the forehead. So when he heard about a monkey whose violent, feces-throwing urges had been curbed by cuts to the frontal lobe, Moniz was moved to try out the same thing with some of his patients. He believed the technique could cure insanity while leaving the rest of the patient's mental function relatively normal, and his research seemed to support that. The accolades flooded in and Moniz was awarded the Nobel Prize in 1949. After the lobotomy rage hit American shores, Dr. Walter Freeman took to traveling the country in his "lobotomobile", performing the technique on everyone from catatonic schizophrenics to disaffected housewives. His road-ready procedure involved inserting a small ice pick into the brain through the eye socket and wiggling it around a bit. While some doctors thought he'd found a way to save hopeless cases from the horrors of life-long institutionalization, others noted that Freeman didn't bother with sterile techniques, had no surgical training whatsoever, and tended to be a bit imprecise when describing his patients' recovery. As the number of lobotomies increased, a major problem became apparent. The patients weren't just calm; they were virtual zombies who scarcely responded to the world around them. Between that and the bad press lobotomies received in films and novels such as *One Flew Over the Cuckoo's Nest*, the treatment soon fell out of favor.

1. According to dr. Jauregg it was the weirdly shaped blood cells in malaria patients that killed syphilis bacteria.	
2. Penicillin proved useless in the treatment of syphilis and so malaria therapy was conceived.	
3. It is believed that due to the release of certain chemicals during epileptic seizures it is possible to manage schizophrenia.	
4. There are hardly any side effects to the method introduced by dr. Meduna and so it is perceived as perfectly safe.	
5. The source of mental illnesses in women according to Hippocrates was the uterus which begins to move about an organism.	
6. The best cure for hysteria according to Plato was reproduction.	
7. Phrenology deals with recognizing one's character by means of studying the structure of one's skull.	
8. According to dr. Gall if a person had a ridge at the top of the head, he or she would be compassionate.	
9. Dr. Moniz first used a monkey to test his idea of soothing violent behaviours by means of operating on the frontal lobe.	
10. Dr. Freeman received great medical education and was praised for his devotion to the patients whom he visited far and wide.	

Task 2. Circle the correct answer. Only one answer is correct.

- I. As one of the side effects of malaria therapy the patient was febrile for:
 - a. Short time
 - b. Some time
 - c. Long time
 - d. Does not say
- II. Logic is “flawless” when it is:
 - a. Imperfect
 - b. Impeccable
 - c. Impossible
 - d. Incoherent
- III. According to Hippocrates, the unsettled uterus was the effect of:
 - a. Being overused
 - b. Being cold
 - c. Being hot
 - d. Not being used frequently enough
- IV. The word “fad” is the synonym of:
 - a. Trend
 - b. Innovation
 - c. Furor
 - d. Answers a, b, and c are correct
- V. Dr. Freeman used an ice pick to:
 - a. Stab the uncovered brain
 - b. Move it about in the eye orbit
 - c. Pierce the eyelid
 - d. Make a hole in the frontal bone

READING TWO

Read the following text and circle the correct answer a, b, c, or d. Only one answer is correct.

Popularity of indoor tanning among younger people 'alarming'

Adapted from Medical News Today

New research analysing the prevalence of indoor tanning has 1. _____ the activity is very common in Western countries, particularly among young people. Because the use of tanning beds has been 2. _____ with a higher risk of skin cancers, researchers say its popularity is a public health risk.

Indoor tanning 3. _____ the user to ultraviolet (UV) radiation. Research has shown that exposure to these UV rays can increase the risk of skin cancers, such as 4. _____ and squamous cell, and cancers of the eye. Last year, Medical News Today reported 5. _____ a study revealing that the risk of cancer from tanning beds is two times higher 6. _____ spending the same amount of time in the Mediterranean sun.

7. _____ to the Centers for Disease Control and Prevention (CDC), the risk of skin cancer from tanning beds is much higher for younger people. Individuals who begin tanning under the age of 35 have a 59% higher risk of melanoma. In 8. _____ to determine just how popular indoor tanning is, researchers from the University of California, San Francisco, led by Mackenzie R. Wehner, analysed 88 studies from 16 countries that reported the 9. _____ of tanning bed use. The studies included a total of 406,696 participants. The investigators assessed indoor tanning popularity 10. _____ different age groups, before calculating the risk of skin cancer in the US, Europe and Australia.

Findings are 'concerning'

The study findings, published in the journal JAMA Dermatology, revealed that 35% of adults 11. _____ been exposed to indoor tanning, and 14% had used a tanning bed in the past year. University students had the highest exposure to indoor tanning, 12. _____ 55% using tanning beds and 43% using them in the past year. Around 19% of adolescents had been exposed to indoor tanning, while 18% had used tanning beds in the past year. 13. _____ , indoor tanning was more popular for women than men.

The researchers 14. _____ that these levels of exposure to indoor tanning could lead to more than 450,000 NMSC cases and 10,000 skin cancer cases every year. Authors say their findings are a cause for 15. _____ , particularly for younger individuals. To 16. _____ : "Because the risk of melanoma and NMSC is highest in those exposed to indoor tanning in early life, our finding that the 17. _____ of university students and approximately 1 in 5 adolescents have been exposed is concerning. It is possible that skin cancer rates in this highly 18. _____ group will be even higher in the coming decades as this younger generation ages."

Tanning-related skin cancer cases 'higher' than smoking-related lung cancer cases

The authors say their estimate of 450,000 skin cancer cases each year 19. _____ to indoor tanning is "alarming." They even 20. _____ out that this number of skin cancer cases linked to the use of tanning beds in the US, Europe and Australia is higher than the number of lung cancer cases linked to

smoking in the same regions. "Clearly, the mortality associated with lung cancer is 21. _____ greater than that for skin cancer, and smoking causes many other health risks," they note. "However, it is striking that 22. _____ the population proportional attributable risks of these two behaviours are quite different - approximately 3-22% for skin cancer 23. _____ with approximately 90% for lung cancer - the extremely high incidence of skin cancer means that there are more skin cancer cases connected with indoor tanning than lung cancer cases linked to smoking."

The investigators add that indoor tanning is growing in popularity, 24. _____ smoking rates are falling in Western countries. Therefore, they say it is possible the number of skin cancer cases as a result of indoor tanning will exceed the number of lung cancer cases 25. _____ to smoking in years to come. Concluding their study, the investigators say further research is needed into new policy and prevention strategies that can significantly reduce the risks of skin cancer.

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|---------------------|-----------------|-----------------|--------------------------------|
| 1. a. present | b. introduced | c. revealed | d. show |
| 2. a. assembled | b. associated | c. assumed | d. assigned |
| 3. a. displayed | b. exposed | c. uncovered | d. covered |
| 4. a. melanocyte | b. melanoblast | c. melanin | d. melanoma |
| 5. a. at | b. on | c. into | d. onto |
| 6. a. more | b. then | c. than | d. that |
| 7. a. Meaning | b. Owing | c. Due | d. According |
| 8. a. view | b. go | c. spite | d. order |
| 9. a. frequency | b. prevalence | c. regularity | d. all answers are correct |
| 10. a. by | b. according | c. accordingly | d. on |
| 11. a. has | b. have | c. had | d. were |
| 12. a. who have | b. which | c. who | d. with |
| 13. a. Overall | b. In generally | c. Basically | d. answers a and c are correct |
| 14. a. amass | b. count | c. calculate | d. comass |
| 15. a. worried | b. concern | c. matter | d. involvement |
| 16. a. quote | b. say | c. tell | d. refer |
| 17. a. minority | b. majority | c. superiority | d. inferiority |
| 18. a. vulnerable | b. unlikely | c. susceptible | d. attainable |
| 19. a. attributable | b. available | c. obtainable | d. extractable |
| 20. a. point | b. cite | c. remark | d. make |
| 21. a. more | b. far | c. further | d. farther |
| 22. a. although | b. even | c. nevertheless | d. in spite |
| 23. a. measured | b. contrast | c. correlated | d. compared |
| 24. a. whereas | b. with | c. without | d. because |
| 25. a. since | b. thank | c. due | d. in view |