

MYTHS ABOUT OBESITY

Author: Robert Helán

Obesity is an issue on which many people hold strong opinions. Many of these opinions might not be based on scientific evidence, giving rise to speculations and the creation of myths. As future health-care providers, students of medicine and other allied health professions should be capable of debunking these myths, using evidence-based approach.

The following is a sample lesson on the topic of obesity myths. The lesson has multiple aims:

- making students aware of the many obesity myths generally accepted as fact;
- engaging students in critical thinking and media literacy;
- developing students' discussion and argumentation skills;
- familiarizing students with discipline-specific academic vocabulary.



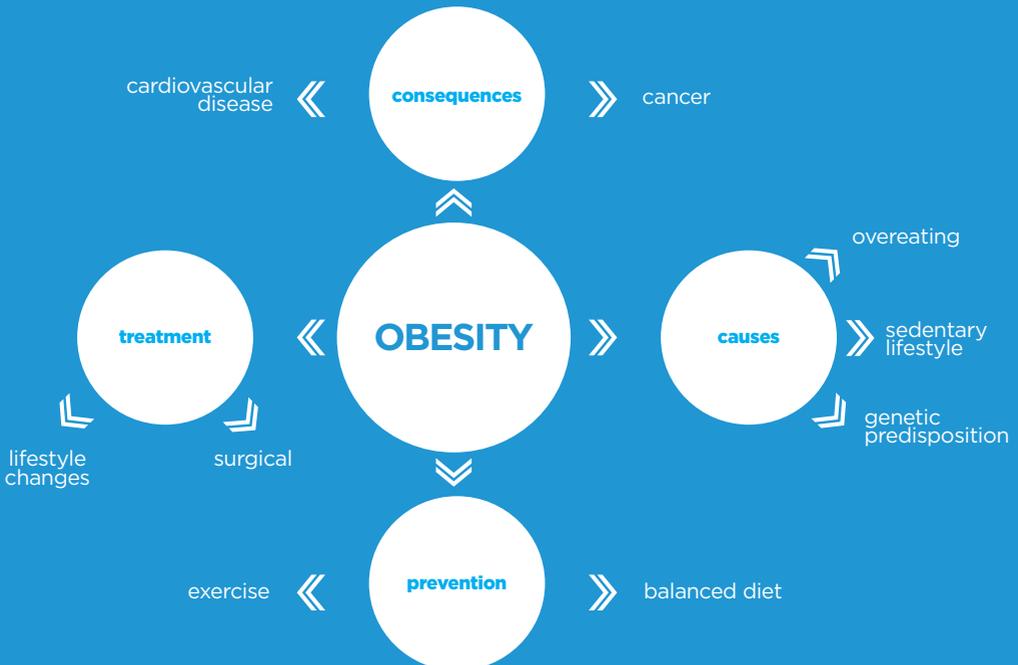
Level:	B2+
Target group of students:	medics, bachelor students of nutritional therapy, nursing and physiotherapy, etc.
Topic:	obesity myths/beliefs/facts
Language:	- academic vocabulary, discipline-specific vocabulary (medicine, nutrition) - genre: research article
Skills:	- speaking: discussion, argumentation - brainstorming: mind-mapping - critical thinking, media literacy



LESSON STAGES

1. LEAD-IN: 'OBESITY' MIND-MAPPING

- 1** Work in groups of three. Brainstorm on the topic of 'obesity'. List all the obesity-related concepts and try to draw how they are interrelated – see the example below. Be prepared to present your mind-map of 'obesity' to the rest of the class.





2. PRE-TEACHING VOCABULARY

a. Match the words with the definitions.

- | | |
|----------------|--|
| 1. downright | a. ambitious, difficult |
| 2. bout | b. continuous, without interruption or weakening |
| 3. expenditure | c. to the fullest degree, completely or totally |
| 4. gradual | d. act against something, cause something to have less or no effect at all |
| 5. sustained | e. a period during which you do not eat food, especially for religious or health reasons |
| 6. challenging | f. a short period of time during which something is done or happening |
| 7. counteract | g. the consumption or use of something, such as energy |
| 8. seek | h. evaluate, judge the value of something or somebody |
| 9. fasting | i. search for, try to find someone or something |
| 10. assess | j. changing in small amounts, happening in a slow way over a long period of time |
-

b. Complete the sentences with the words (1.-10.) from the previous exercise.

1. Physical activity is the _____ of energy generated by moving muscles in the body.
2. A recent study found that cancer patients who included _____ into their therapy perceived fewer side effects from chemotherapy.
3. Parents should always _____ medical advice if they are worried about their children.
4. Eating healthy and losing weight seems _____ impossible for many people.
5. Many medicines are prescribed simply to _____ the side effects of other medications.
6. The operation was _____ for even the most experienced surgeons.
7. Western countries are making a _____ effort in the push for an AIDS-free generation.
8. Exercise has been demonstrated to reduce blood glucose level for up to 48 hours following a _____ of exercise.
9. The scientist wants to _____ whether smoking is a risk factor for pancreatic cancer.
10. The hospital has made _____ improvements in health care.



3. READING

- a.** Read the following excerpt of an article on myths about obesity. Use your knowledge of the field of nutrition and hypothesize why they are considered myths and not facts.

Seven Myths of Obesity

An article published online in the New England Journal of Medicine claims that some of the most firmly held beliefs about weight loss are unproven or downright untrue, based on analysis comparing what we hear in the popular media to what we actually know from reliable research. The article discussed a total of seven myths and backed it up with evidence. The myths are:

Myth number 1:

Small sustained changes in energy intake or expenditure will produce large, long-term weight changes.

Myth number 2:

Setting realistic goals for weight loss is important, because otherwise patients will become frustrated and lose less weight.

Myth number 3:

Large, rapid weight loss is associated with poorer long-term weight-loss outcomes, as compared with slow, gradual weight loss.

Myth number 4:

It is important to assess the stage of change or diet readiness in order to help patients who request weight-loss treatment.

Myth number 5:

Physical-education classes, in their current form, play an important role in reducing or preventing childhood obesity.

Myth number 6:

Breast-feeding is protective against obesity.

Myth number 7:

A bout of sexual activity burns 100 to 300 kcal for each participant.

b. Now match the myths (beliefs) above with the facts (reality) below.

Fact A: In reality, it is just about one-twentieth of that on average, and not much more than resting on the couch.

Myth number __

Fact B: People who lose weight quickly are actually more likely to weigh less after many years.

Myth number __

Fact C: This was based on the old idea that 3,500 calories equals 1 pound of weight. But it does not take into account the fact that energy requirements change as body mass changes over time. So, as weight is lost, it takes increasingly more exercise and fewer calories to keep the weight off.

Myth number __

Fact D: Among people who seek weight loss treatment, research suggests that examining readiness does not predict weight loss or helps to make it happen.

Myth number __

Fact E: Although it has certain advantages for both mother and child, data does not confirm that it protects against obesity.

Myth number __

Fact F: Currently, they do not appear to counteract obesity.

Myth number __

Fact G: Some data points out that people achieve more by setting more challenging goals.

Myth number __



4. POST-READING

Answer the following questions regarding critical thinking skills.

- How can you make sure you can believe the results of the article summarized above?
- Read the whole article - <http://www.nejm.org/doi/full/10.1056/NEJMsa1208051> Provide a critical evaluation of the article - suggest some red flags (warning signals) that there might be flaws.



5. DISCUSSION: MYTHS

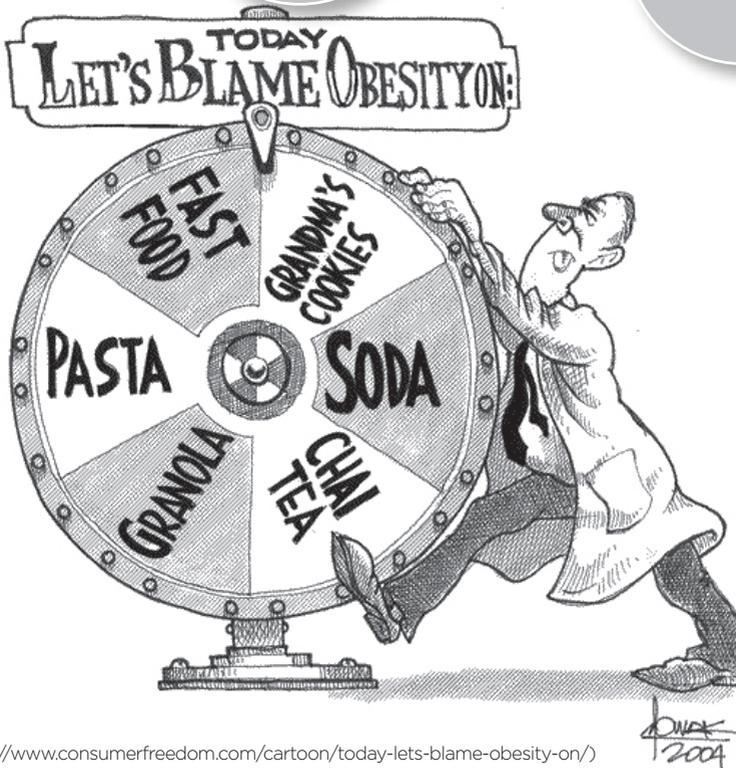
- Work in pairs. What other generally held myths about obesity do you know? Write several of them down and discuss them. Examples of some other obesity myths are provided below.

A. Cholesterol is bad for you, low or zero-fat diets are good for you.

B. Food eaten late at night makes you gain weight.

C. If you are obese, blame your genes.

D. You can't be overweight and healthy.



(<https://www.consumerfreedom.com/cartoon/today-lets-blame-obesity-on/>)

Sources:

<http://www.netdoctor.co.uk/womenshealth/features/dietmyths.htm>
<http://www.nejm.org/doi/full/10.1056/NEJMsa1208051>
<http://www.obesitymyths.com/index.cfm>



KEY

1. LEAD-IN: 'OBESITY' MIND-MAPPING

Individual answers.

2. PRE-TEACHING VOCABULARY

a.

1c, 2f, 3g, 4j, 5b, 6a, 7d, 8i, 9e, 10h

b.

1. expenditure (výdej), 2. fasting (půst), 3. seek (hledat), 4. downright (naprosto),
5. counteract (potlačit), 6. challenging (náročný), 7. sustained (trvalý)/ gradual (postupný),
8. bout (činnost), 9. assess (ohodnotit), 10. gradual (postupný) / sustained (trvalý)

3. READING

a.

Individual answers.

b.

Fact A + Myth number 7, Fact B + Myth number 3, Fact C + Myth number 1,
Fact D + Myth number 4, Fact E + Myth number 6, Fact F + Myth number 5,
Fact G + Myth number 2

4. POST-READING

a.

Students can ask themselves the following questions to critically analyze any study or article: Does the journal have a good reputation? Is it a high-quality journal? Who are the journal editors? Are the article results backed up with evidence? Did the authors use an adequate and reliable analytical method? Does the article contain references to other evidence-based studies? What institutions do the authors come from? Were they paid for their research? By whom?

b.

Possible answers:

The authors cite too few studies to support their claims.

There is a conflict of interests (the authors cooperate with companies that sell meal replacement diets and prescription diet pills).

Their findings seem too general disregarding the complex nature of the topic.

Their findings do not answer the basic questions: What should obese people then do to lose weight?

5. DISCUSSION: MYTHS

- A. We all need some blood cholesterol as it's used to build cells and make vital hormones - and there's good (LDL) and bad (HDL) cholesterol.
- B. Large meals eaten late at night do not make the body gain weight - it's the total amount eaten in a 24-hour period that's important.
- C. Between 1980 and 2000, the number of people who are obese has doubled (e.g. in the USA). That's too quick for genetic factors to be responsible. The most important is the calorie intake.
- D. It was found that heavy people who are fit have a lower risk of developing diseases than thin people who are unfit.

MASARYK UNIVERSITY LANGUAGE CENTRE WHO WE ARE



A university-wide institute providing education in foreign languages and testing language proficiency at all individual faculties of Masaryk University

- founded in 1971
- the biggest university language centre in the Czech Republic
- branches at nine faculties of Masaryk University
- 9,000 students per semester
- 100 employees
- own research activities and educational projects
- seven languages:



LANGUAGE CENTRE MASARYK UNIVERSITY

LANGUAGE CENTRE HEADQUARTERS

 Komenského náměstí 2 • 602 00 Brno

CONTACT INFO

 Žerotínovo náměstí 9 • 601 77 Brno • Czech Republic

 +420 549 496 447  cjv@rect.muni.cz

 author's contact: rhelan@med.muni.cz

 www.cjv.muni.cz/en

Follow us on:



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ