



Causes of Human Disease: Understanding Cardiovascular Disease

Explore normal cardiovascular function and risk factors associated with heart attack, stroke and other cardiovascular diseases.

If your students are completing the whole of this course online and are not participating in the teacher-led lessons based on it, then they can complete useful and engaging activities based on the content covered. You can choose for your students to complete individual tasks by themselves or encourage group work. Though you may have your own ideas about what your students can do with the course content, we've made things easy for you by suggesting some activities that you can submit to your students below. Instructions for the students can be found later in this document.

Individual student tasks taken from the course

Reflection: Students write a 500 word reflection on what they learned from the course, including anything they might do differently now as a result of their learning, and anything additional they found out from their own reading around the topic. They will submit this reflection as a written essay, podcast or video.

Activity: Using information from Step 1.8, students define what 'modifiable' and 'non-modifiable' risk factors are, and provide a list of examples for each. Submit the list and definitions to the teacher.

Research task: Students find out what the two most common types of cardiovascular disease are, and prepare short descriptions of each. They can submit the descriptions to the teacher.

Group tasks based on the course

Research task: Groups research blood pressure and blood sugar. Using the videos and information in Step 2.2 (What affects blood pressure?) and Step 2.6 (What affects blood sugar levels?) as well as their own research, each group prepares an informative presentation.

Presentations must include:

- information about blood pressure and blood sugar
- the factors which create high blood pressure/sugar
- the symptoms that are presented in each issue
- the management and treatment of high blood pressure/sugar.

Discussion task: Groups should discuss the following question:

- If you were to plan a new health promotion campaign to raise awareness of risk factors for cardiovascular disease, what lifestyle changes would you prioritise in the campaign?

Students can debate and make arguments for prioritising specific lifestyle changes, before voting/agreeing as a group which ones they would prioritise.

Collaborative task: Ask groups to watch the video in Step 1.4 (The cardiovascular system in action) and create diagrams of the systemic circulation system and the pulmonary system using any media,

materials or software they choose. Further research and information/diagrams from Step 1.4 can also be used. Groups should draw comparisons between the two and list the differences.

Additional support

You can use the [How to use FutureLearn guide](#) with your students to get them started. There is also a school-facing [Guide to safeguarding and security on FutureLearn](#) if you need it.

Test

You can use the test questions listed in the student instructions below as a short assessment to enable your students to demonstrate what they have learned on the course. The assessment has 15 marks in total.

The questions have been designed to be flexible and open. The questions indicate which steps the answers can be found on. The marks available reflect the likely length and complexity of the answer expected, and how many points they are likely to make. For example, a 5-mark question might reflect a longer, more complex question, or one where they have asked to describe or explain a number of elements. Depending on the level and ability of your students, you can decide how you wish to award the marks so they appropriate for your class.

Each question suggests which steps the students may wish to return to answer the questions. **You can decide if you want to include this information when you share the assessment with your students.**

Student instructions

Reflection

Write a 500 word reflection of what you have learned from the course. It should include anything you might do differently now because of what you learned and anything additional you found out in your reading around the topic. Submit this reflection to your teacher as a written essay, podcast or video.

Activity

Using information from Step 1.8, explain what 'modifiable' and 'non-modifiable' risk factors are, and provide a list of examples for each. Submit the list and explanations to your teacher.

Research task

Find out what the two most common types of cardiovascular disease are, and prepare short descriptions of each. Submit the descriptions to the teacher.

Group discussion

In your groups, discuss the following question:

- If you were to plan a new health promotion campaign to raise awareness of risk factors for cardiovascular disease, what lifestyle changes would you prioritise in the campaign?

You can debate and make arguments for prioritising specific lifestyle changes, before voting/agreeing as a group which ones you would prioritise.

Group research task

As a group, research blood pressure and blood sugar. Using the videos and information in Step 2.2 (What affects blood pressure?) and Step 2.6 (What affects blood sugar levels?) as well as your own research, prepare an informative presentation.

Presentations must include:

- information about blood pressure and blood sugar
- the factors which create high blood pressure/sugar
- the symptoms that are presented in each issue
- the management and treatment of high blood pressure/sugar.

Group collaborative task

In your group, watch the video in Step 1.4 (The cardiovascular system in action) and create diagrams of the systemic circulation system and the pulmonary system using any media, materials or software you choose. Further research and information/diagrams from Step 1.4 can also be used. You should draw comparisons between the two and list the differences.

Test

Complete the assessment questions below to demonstrate your understanding of the course. You can refer back to the course to find the answers or more detail as you need to. You should not however share your answers with other students.

Your answers should be written in full sentences and be appropriately detailed. Make sure you read the questions carefully before starting to answer. Each question shows how many marks are available – use this to guide how much detail or how many points you need to include.

[The questions also indicate where you can start to look to find the answer. You can also include information from other steps if that is relevant.]

1. What are the two most common types of cardiovascular disease? (2 marks) [Step 1.3]
2. Give three examples of non-modifiable risk factors to heart health. (3 marks) [Step 1.8]
3. Give two examples of modifiable risk factors to heart health, and suggest ways to reduce each risk. (4 marks) [Step 1.8]
4. What is high blood pressure? Explain how it is caused, and how it can be reduced. (3 marks) [Step 2.2]
5. What is high blood sugar? Explain how it is caused, and how it can be reduced. (3 marks) [Step 2.6]