

Introduction to Physiology BMHP5003

Assessment Component 1

Topic: COPD

(Chronic Obstructive Pulmonary Disease)

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Introduction

- Aim of the presentation is to introduce respiratory system anatomy and physiology, and a lifestyle related long-term condition of Chronic Obstructive Pulmonary Disease applied to Patient A.
- COPD: The name is from a group of lung conditions where is difficult to breath and it could cause smoking, or it could be genetical. COPD could include long term Bronchitis and Emphysema (Blf.org, 2022).

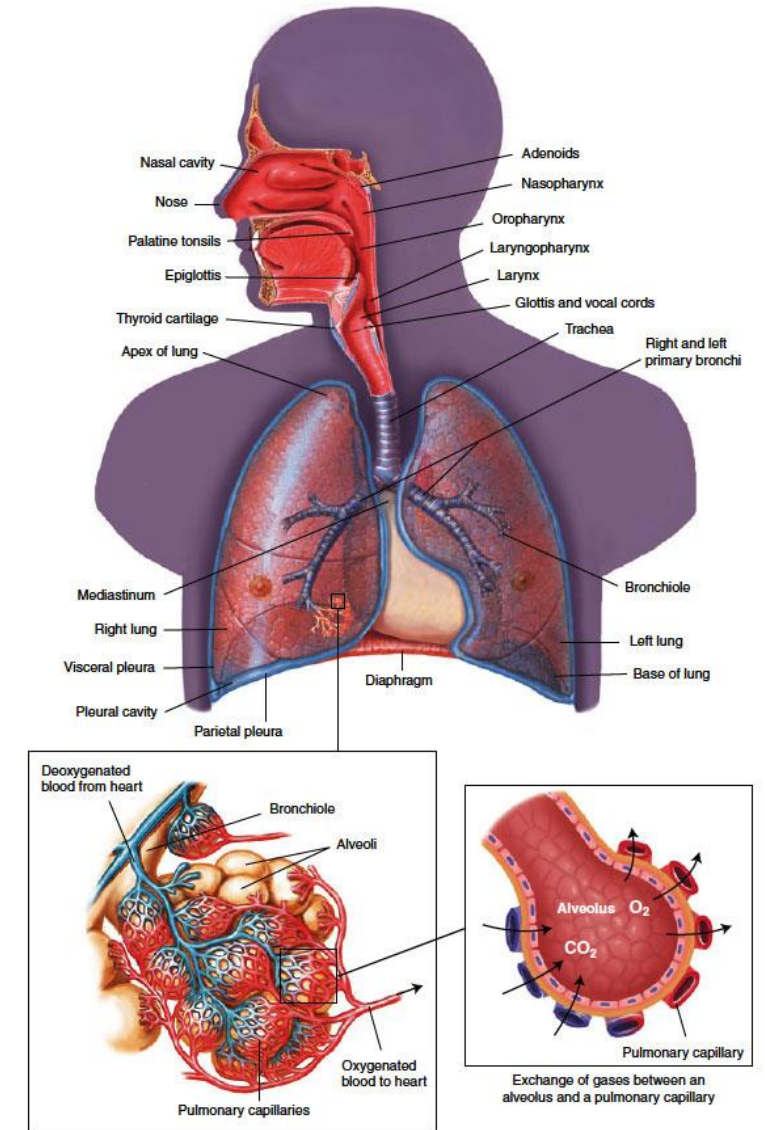
Anatomy of the Respiratory System

Upper Tract:

- Nose
- Mouth
- Pharynx
- Larynx
- Trachea

Lower Tract:

- Left and right primary bronchi
- Bronchioles
- Alveoli
- Lungs (Wisdomjob, 2020)



(Wisdomjob, 2020)

Physiology of Respiratory System

- The organs in this system make it available to take oxygen from the air and deliver into the lungs.
- Transport oxygen into lungs from the air we breathe and exchange O₂ with CO₂ with the help of alveoli where oxygen gets filtered (Solutionpharmacy, 2021).
- Deoxygenated blood change in oxygenated and with bloodstream going into the heart.
- With bloodstream the oxygenated blood going to the other organs and supporting their normal working order.
- Left lung is smaller than right lung, it is staying from only two lobes because it is making space for the heart (Wisdomjob, 2020).

Questionnaires

- Smoking and drinking habits
- Long-term conditions in the family
- Medications
- Lifestyle habits:
 - Form of the job
 - Exercises
 - Eating habits
 - Other daily activities

Answers collected from 'Patient A'

- Smoking in daily basis around 20 cigarettes
- Drinking in weekly basis around 3 pint of beer
- COPD related long-term conditions known from family
- His work based at office and sitting 6 hours
- He do occasionally exercise such as cycling to work/ with family
- He spent more hours outside with gardening
- He has been warned once already in the past about finish smoking and start a diet

Health Risks

- Lung cancer
- Chronic Bronchitis
- Asthma
- COPD (Chronic obstructive pulmonary disorder)
- Smoking could block arteries causing further damages in circulation system such as in heart and different arteries (Healthline, 2018)
- Emphysema is another type of COPD when alveoli's losing their elastics and this sacs will be damaging and die off and it is making harder moving oxygen from lungs to the bloodstream (Verywellhealth, 2022)

Recommendations

Asthma + Lung UK

Nation's lung charity free services giving support, health advices and running group sessions. Their aim is to improve people lives living with lung diseases.(Asthmaandlung,2022)

NHS Stop Smoking Service

Free service with experienced advisers providing help with different methods for peoples wants to quit from smoking. They offering personal and group sessions both. Anybody could ask their GP for referral to this service.(NHS,2022)

Conclusion

- Smoking causing long term conditions such as COPD (Compulsive Obstructive Pulmonary Disorder) and Lung Cancer
- Appearing COPD in the family could higher the risk to get it with genetically
- Drinking alcohol could increase also the risk
- Doing regular exercise could improve the capacity of the lungs and manage the symptoms of different respiratory system diseases
- It is important visiting GP because they could help to prevent disease (so they not become long-term) and manage the existing ones. Also, they offering services such as helping quitting from smoking or helping with weight loss.

References

Healthline (2018) *Breathtaking Lungs: Their Function and Anatomy* [Online]. Available from: <https://www.healthline.com/human-body-maps/lung#lung-tests> (Accessed: 24 October 2022)

Solutionpharmacy (2021) *Anatomy and Physiology of Lungs* [Online]. Available from: <https://solutionpharmacy.in/anatomy-and-physiology-of-lungs/> (Accessed: 24 October 2022)

BBC (2022) Respiratory System [Online]. Available from: <https://www.bbc.co.uk/bitesize/guides/ztkr82p/revision/1> (Accessed: 01 November 2022)

References

Blf.org (2022) *What is COPD?* [Online]. Available at: <https://www.blf.org.uk/support-for-you/copd/what-is-copd> (Accessed: 01 November 2022)

Sepsis.org (2019) *COPD Awareness: The Importance of Understanding COPD* [Online]. Available at: <https://www.sepsis.org/news/copd-awareness-the-importance-of-understanding-copd/#:~:text=November%20is%20National%20COPD%20Awareness%20Month%20and%20here,the%20U.S.%20have%20died%20from%20COPD%20More%20items> (Accessed: 01 November 2022)

Wisdomjob (2020) *Anatomy and Physiology-Respiratory System-Medical Terminology* [Online]. Available at: <https://www.wisdomjobs.com/e-university/medical-terminology-adaptive-tutorial-119/anatomy-and-physiology-respiratory-system-14973.html> (Accessed: 01 November 2022)

References

Verywellhealth (2022) *The 8 Most Common Types of Respiratory Disease* [Online]. Available from: <https://www.verywellhealth.com/respiratory-diseases-5206842> (Accessed: 01 November 2022)

WHO (2022) *Chronic obstructive pulmonary disease* [Online]. Available from: [https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-\(copd\)](https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd)) (Accessed: 01 November 2022)

Ruralhealthinfo (2019) *Diagnosing the Rural COPD Patient: Ask About Symptoms, Use Spirometry* [Online]. Available from: <https://www.ruralhealthinfo.org/rural-monitor/diagnosing-copd/> (Accessed: 01 November 2022)

References

Asthma and Lung UK (2022) *Who we are?* [Online]. Available from: <https://www.asthmaandlung.org.uk/who-we-are/> (Accessed: 15 November 2022)

NHS (2022) *NHS stop smoking services help you quit* [Online]. Available from: <https://www.nhs.uk/live-well/quit-smoking/nhs-stop-smoking-services-help-you-quit/> (Accessed: 15 November 2022)