**Virtual Spirometry Lab**

**Name:**

Follow this link: <https://learn5.open.ac.uk/mod/htmlactivity/view.php?id=1548&fbclid=IwAR10DhNC6K1g1WJR5Ch_L6mXRAVauzIKVZRiSw4z9Sn37tuXUsnRqmaZ4GA>

**Watch the introductory video, and then answer the questions below:**

1. What is spirometry?
2. How is spirometry data collected? Why is this method useful?
3. What does the FEV1 value measure?
4. What does the FVC value measure?
5. What value indicates a lung problem? Include the calculation to find this value and the actual value.

**Now, click the spirometer tab.**

Pose a question for which you would like to know the answer. For example, I am curious how smoking affects the lung capacity/function for males aged 65-85.

**Record your question here:**

**Create a data table that will allow you to answer your question. Appropriately title your table. My data table is below: \*I researched the average height of the American male. It is 5’10”, so I kept my height at 5’10” for all of my data collection.**

The Effects of Smoking on the Lung Functioning of Men Ages 65-85\*

|  |  |  |
| --- | --- | --- |
| Age | Smoker Lung Capacity: FEV1/FVC (%) | Nonsmoker Lung Capacity:FEV1/FVC (%) |
| 65 |  |  |
| 66 |  |  |
| Table continues until age 85 is reached |  |  |

\*All values are for males with a height of 5’10”

**Depending on what data you need to answer your question, you may not have the exact same data table. Insert your table, with a title, here. “File→ insert” here………….**

**Now, collect your data.**

**Once finished, copy the data\* into your table that you inserted above, or click “export data,” and copy and paste the appropriate data.**

\*You may not use all of the data given by the website, which is fine. Note how my table does not include *all* of the data I could gather from the website.

**Based on your results, what is the answer to your proposed question?**

A small, portable spirometer is often given to post-surgery patients in a hospital by their assigned occupational or respiratory therapist. Look up: **What role do occupational therapists and respiratory therapists assume in a hospital setting?**

**Occupational therapist**:

**Respiratory therapist:**

**What would he/she be attempting to do for the patient by using a portable spirometer?**